



News & Views

The Newsletter of the ZYGON CENTER FOR RELIGION AND SCIENCE

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We at ZCRS are going through changes, some big, some small, but changes nonetheless. If you have read our previous newsletters, you will notice a name change. We went from *ZCRS Reports* to *ZCRS News & Views*. As you turn the pages, you will also notice the basic theme is the “future” of ZCRS, with articles from our new director, Dr. Antje Jackelén, Dr. Gayle Woloschak (new director of the Epic of Creation), and a report on the HIV/AIDS project headed up by Dr. James Moore. This past May, we celebrated the inauguration of Dr. Jackelén and the retirement of Dr. Philip Hefner. It has been quite a year for us and we hope you enjoy the “new” ZCRS.

Marcy Gaston
Editor

RELIGION AND SCIENCE: THE QUESTIONS THAT SHAPE OUR FUTURE

ZCRS Inaugural Symposium *Points to the Future*

By Debra Hostetler Van Der Molen

People with cultural ties to four continents, including scientists, scholars from many disciplines, theologians and pastors from a variety of Christian denominations and world religions, students, and interested laypeople recently met in Chicago to celebrate the 15-year history of the Zygon Center for Religion and Science, to honor Philip Hefner, the Center’s first director, and to welcome and inaugurate Antje Jackelén into her new position as director of ZCRS. The Inaugural Symposium, which was held May 1 and 2, was organized around the theme “Religion and Science: The Questions That Shape Our Future.”

The symposium opened on the evening of Thursday, May 1 with a gala reception in the Adler Planetarium & Astronomy Museum, located on the Chicago lakefront. After entering the museum through a gallery of stars, more than 200 guests were treated to a sky show, a tour of the museum by Grace

Wolf-Chase, resident astronomer at the Adler, and a keynote address by Mihaly Csikszentmihalyi, whose seminal work in the evolution of consciousness includes the concept of “flow.”

Throughout its history, ZCRS has emphasized the questions raised by the life sciences, and the keynote address was in this tradition. Csikszentmihalyi, one of the founders of the “positive psychology” movement, has spent more than 30 years studying

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the human capacity for adaptive behaviors, including courage, hope, optimism, and creativity and offered his reflections in his keynote address entitled “What Must We Accomplish in the Coming Decades?” To begin, “we need a new image of what it means to be human,” he said. After a century of highly negative views of human nature held by thinkers including Marx and Freud, the social sciences are beginning to take a



Mihaly Csikszentmihalyi and Philip Hefner. Photo courtesy of Ingrid Shafer.

more benign view of human beings, he said. Humans are neither the “supreme goal of creation” nor “robots for selfish genes” motivated primarily by greed and lust. Scholars such as Robert Wright and David Sloan Wilson have argued that cooperation, altruism, and spiritual empathy for the world at large may be necessary for human survival. As humans create different kinds of selves, we are the “cutting edge in the evolution of complexity,” Csikszentmihalyi said. This is neither inherently good nor bad, but an incredibly powerful identity.

As humans try to live out this identity in a responsible way, we need to develop new rules for our social compact, the speaker urged. In addition to narrowing the gap between rich and poor people and nations, we need to reverse the “impoverishment of our reward system.” Many preliterate societies were more able to reward positive behavior with respect, honor, and deference than modern societies are. In many of the modern cultures, these intangible rewards have disappeared and all that remains is material reward.

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-Mihaly Csikszentmihalyi

cate the next generations. Csikszentmihalyi quoted Plato who, 25 centuries ago, wrote in *The Republic* that education consists primarily in “teaching young people to find pleasure in the right things.” Currently, “our task is to teach young people to get joy from helping evolution, to help them see the pursuit of ecological health, social justice, and cooperation as a great adventure.”

The second day of the symposium was held at the Lutheran School of Theology at Chicago, which has been home to ZCRS since the Center’s inception in 1988. Mary Evelyn Tucker, a scholar of world religions, Willem B. Drees, a philosopher, physicist, and theologian, Ursula Goodenough, a biologist, and Arthur Peacocke, a physical chemist and theologian, presented major addresses.

Tucker’s lecture, entitled “What Are Future Generations Asking of Us?” compared the contemporary cultural, religious, and scientific exchanges to the vast interaction of culture and religion along the Silk Road more than a millennium ago. Out of this current exchange, humans must form “a dynamic, multiform, planetary civilization. The challenge for the human is to learn a new symbiosis with the Earth,” she said. “We are being sculpted into new events in universe emergence like the rocks, and trees, and the Zen garden.”

Willem Drees spoke on the questions “Where to Look for Guidance? Past Traditions, Present Science, Future Consequences?” After surveying the types of knowledge that science and religion produce



Antje Jackelén and Philip Hefner at the Inaugural Symposium. Photo courtesy of Terri Nielsen.



Hubert Meisinger and Willem Drees. Photo courtesy of Heinz Jackelén.

assumptions because “humans and their cultures are part of nature and reveal the possibilities of matter.” However, he doesn’t believe the influence of nature negates the possibility of making important choices. “Humans have a longing for improvement for the conditions of life and may go beyond and against that which has been handed down” and have a responsibility to do so, he concluded.

In her address on “Emergence, Transcendence, and Religious Naturalism,” Ursula Goodenough gave the audience lessons on how emergence works in the natural world and its role in fashioning the position she calls “religious naturalism.” First order emergence describes a type of phenomenon that simply is or is not present. It is independent of time, such as the surface tension of water. Second order emergence involves “relational interactions that play out over time” such as weather patterns. In biology, the important thing is that emergent properties are remembered. This third order of emergence is encoded and replicated

and the symmetrical and asymmetrical ways these disciplines can be related, he summarized his own position as an “anti-naturalistic naturalism.” He is guided by

in genes, allows initial and boundary conditions to be carefully specified in order to produce reliable outcomes, and allows these outcomes to further complexity. Muscle motility is an example of third order emergence, and natural selection then acts on these traits. Awareness, which is present in even single-celled organisms, enables adaptive responses to signals from the environment and promotes survival. She concluded with a quote from her collaborator Terrence Deacon who said, “To be human is to know what it feels like to be evolution happening.”

Humans have a longing for improvement for the conditions of life and may go beyond and against that which has been handed down.

—Willem Drees

In a joint “dialogue lecture” entitled “Challenging the Past, Grasping the Future,” Philip Hefner and Antje Jackelén also spoke in evolutionary terms. “The map of the religious consciousness, even of our inmost belief, is being redrawn by the sciences of sociobiology, evolutionary psychology, neuroscience, and the cognitive sciences,” Hefner stated. “We are now in the position where we dare not postpone any longer giving our attention to the agenda that



On the evening of May 1, at the Adler Planetarium, symposium guests enjoy a reception before attending the keynote lecture. Photo courtesy of Terri Nielsen.



Arthur Peacocke and Antje Jackelén at the Adler Planetarium. Photo courtesy of James Nelson.

is posed by these sciences.” One of the key questions concerns the extent to which we are governed by natural selection in our spiritual lives. “If these sciences have established anything at all, it is that, even in our inmost beliefs and actions, we engage in adaptive behavior that is finally either selected for or selected against,” he stated, adding, “God has created the world with this dynamic.”

While Hefner critiqued religious thinkers for not paying enough attention to science, Jackelén challenged the scientific community to pay more attention to three realities of the modern world: feminism, hermeneutics, and postmodernism. “Beliefs about the inferiority of ‘woman’ still form part of our cultural fabric,” she stated. “Feminism touches on issues of inclusion and exclusion that are vital to society and to science.” Hermeneutics started out as a theory of how to interpret texts, but it has evolved into a way of understanding *understanding itself*. She offered three examples of how hermeneutics is relevant to science:

- the discussion of the different interpretations of quantum physics;
- debates initiated by Thomas Kuhn’s work on paradigms; and
- analysis of laboratories as places of power where the future is in the making.

Of the three concepts, postmodernism faces the strongest resistance from the scientific community. “If it were to lead to total relativism and were to bring about the cultural disrespect for every truth claim, then it would indeed be a grave danger.” These themes will not form the program of ZCRS

but will rather serve as a catalyst that will help create ongoing renewal that expands the area of “dia-logue” into “dia-praxis,” as a response to the challenges humanity is facing, she said.

Those in attendance gave standing ovations to both Hefner and Jackelén. Following the lecture, Jackelén was formally inducted into her new position by James Kenneth Echols, president of LSTC and Karl Peters, president of the Center for Advanced Studies in Religion and Science (CASIRAS). (The Zygon Center is a partnership program of the two organizations.)

Jackelén brings a variety of international credentials to her new position as ZCRS director. She served as a pastor in the Church of Sweden between 1980 and her move to the United States in 2001. She earned an M. A. in theology from Uppsala University in 1979 and in 1999 a Ph. D. in theology from Lund University in Sweden. She serves on the council for the European Society for the Study of Science and Theology (ESSSAT). From 1999 to 2001, she was regional director for Europe of the Science and Religion Course Program of CTNS. She has published many articles and books, including *Zeit und Ewigkeit: Die Frage der Zeit in Kirche, Theologie, und Naturwissenschaft* (Germany) in 2002.

Ian Barbour, V. V. Raman, Grace Wolf-Chase, Vítor Westhelle, and Ann Pederson then offered a panel discussion on “Writing the Agenda” for the continuing science and religion dialogue.

The symposium closed with an address entitled “‘The End of All Our Exploring’ in Science and Theology” by Arthur Peacocke. After quoting from his *Genesis for the Third Millennium*, which retells the creation story incorporating the discoveries of modern science, he said humans need to see in nature a “sacramental universe.” The task today is to start with the world as we best understand it and to find paths leading towards God. “I believe that a truly catholic, evangelical, Christian theology is in the process of being forged in the heat generated in the furnace of modern science,” he concluded. ■

Debra Hostetler Van Der Molen is the assistant editor for the Zygon: Journal of Religion and Science. The symposium was taped by Adrian Wyard, president and founder of the Counterbalance Foundation. It is available for viewing on their website, www.counterbalance.org.



Pictorial Chronicle of the Inaugural Symposium





New Director of ZCRS

Dr. Antje Jackelén

Along with being the director of the Zygon Center, Dr. Jackelén is associate professor of theology and religion and science at the Lutheran School of Theology at Chicago. She came to the United States in 2001 from Sweden where she had been a pastor in the Church of Sweden since 1980. Having studied at the University of Tübingen in her native Germany, Jackelén earned her degrees from Uppsala University (M.A., Theology, 1979) and Lund University (Ph.D., Theology 1999) in Sweden. She is on the council for the European Society for the Study of Science and Theology (ESSSAT). Dr. Jackelén was also the regional director for Europe of the Science and Religion Course Program of the Center for Theology and the Natural Sciences (CTNS) from 1999-2001. Dr. Jackelén has published many articles and books. Her most recent book is *Zeit und Ewigkeit: Die Frage der Zeit in Kirche, Theologie, und Naturwissenschaft* (Germany, 2002).



Photo courtesy of Ingrid Shafer

The Future of

ZCRS

By Antje Jackelén

Fifteen years in the life of the Zygon Center for Religion and Science (ZCRS) does not seem to equal fifteen years in the life of a human being. While fifteen-year-old teens in the middle of adolescence are fighting to find their identity, ZCRS comes across as rather mature in its identity.

Two of the core activities of ZCRS, the Advanced Seminar in Religion and Science and the Epic of Creation, have long and stable records of success. The Epic of Creation is an interdisciplinary lecture series that for fifteen years has been directed by physicist Tom Gilbert. It will enter its sixteenth year under the leadership of molecular biologist Gayle Woloschak from Northwestern University. The Advanced Seminar is part of a multidisciplinary

network of faculty, students and professionals in the Chicago area. Since 1965 it has explored a variety of topics seeking to understand and interpret the long-evolved heritage of religion in the context of modern science. A Ph.D. program in religion and science, as well as a new master's level emphasis on religion-and-science studies, make ZCRS in cooperation with the Lutheran School of Theology at Chicago (LSTC) an ideal place to pursue studies in religion and science. The Center's location close to five schools of theology and the University of Chicago contributes significantly to its characteristic identity.

My task as the new director of the Zygon Center for Religion and Science (ZCRS) is to shape its identity in response to what I perceive as major challenges for the field of science and religion today. So far, much of religion-and-science work has been described as "dialogue." Dialogue is good, but it is not enough. We need to strive for what I have called "diapraxis," a switch from a policy-oriented toward a more problem-oriented approach. Such an approach aims at a common praxis that can "birth the future that is most wholesome for the nature that has birthed us," as my predecessor Philip Hefner has expressed it.

ZCRS has challenged religious communities to take the revelatory character of science seriously. This includes the facts, possibilities and problems the



sciences put before us. In addition to this, I would like to challenge especially scientific communities and their leaders and thinkers to pay adequate attention to three other topics that are very much part of our current cultural situation, namely feminism, hermeneutics and postmodernism.

It is quite fair to say that during recent years, both science and science-and-religion have taken some notice of feminist research. Scholars have, for example, analyzed the consequences of the interplay of masculine, feminine and gender typologies in religion and science. In the early 17th century world of Francis Bacon, science was presented as the saint who gathers her followers in monastery-like noble communities, whereas nature was the wild woman that needs to be forced into submission. Historical examples as well as current scientific conceptualizations indicate that beliefs in the inferiority of women still form part of our inherited scientific, religious and philosophical framework.

Feminist scholarship has raised issues of ethics and politics that are basically human issues, equally involving women, men, children and the nature we all relate to; it has also addressed issues of exclusion and inclusion of women and their work, and of minorities and their cultures; and, demonstrating how gender categories are informing and biasing both research agendas and the interpretation of data, it analyzes and suggests different ways of doing science. The problems addressed here are and need to be part of the world we are living in – in the same way as hermeneutics and postmodernism are parts of our context.

Hermeneutics is usually defined as the theory and practice of understanding. What started out as reflection about how we understand and interpret texts has developed into knowledge about the na-

ture of understanding itself. Therefore, its place is not only in the humanities, but wherever we claim to understand something. It dispenses naïveté about

the crystal clarity of facts, and it provides us with methods that allow us to handle the process of understanding and interpreting in rational, intelligible ways. Hermeneutics reflects on the nature and limits of the language or languages we use. This reflection sharpens our awareness of the ideological potential in scientific and religious concepts.

It raises consciousness about the

dynamics of interdisciplinarity, and it alerts us to the significance of the socio-economic situatedness of our intellectual endeavors. Here are just three examples of how hermeneutics is relevant to science: the discussions about different interpretations of quan-

tum physics, the debates initiated by Thomas Kuhn's use of the concept of paradigm, and Bruno Latour's analysis of

laboratories as places where the future reservoirs of political power are in the making.

Many of us grew into a religion-and-science dialogue that assumed without further ado that the questions we raised were of global interest, and that we were able to make assumptions that are valid for all people. Hermeneutical sensibility unmasks such an attitude as an anachronistic illusion (which is a euphemism for imperialism or colonialism).

Of the three challenges I have mentioned, postmodernism faces the strongest resistance from the scientific community. And not without reason: if it were to lead us into total relativism and to bring about a culture of disrespect for every single truth claim, then it would indeed be a danger. But even if it were such a danger, postmodernism would still need to be taken seriously.

However, I think that there is a lot to be gained from a constructive engagement with postmodern



Antje Jackelén and Ian Barbour. Photo courtesy of Ingrid Shafer.

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thought. Postmodernism questions at least two myths of modernity; the myth of progress and the myth of secularization. It is not true that every development is progress, and it is not true that wherever science goes in, religion goes out. Critiquing these myths does not make research impossible. Rather, it makes research more complicated, but maybe even better. I do not embrace an extreme form of constructivism that suggests that pretty much everything is social construction, but I do think that almost everything comes along with construction. I do not deny the value of so called hard data, but I do think that our representation of data is always embedded in construction, a construction that informs how we talk about science, how we teach science and how we do science.

In my view, postmodernism in its most helpful form shares the best fruits of modernity, especially of the Enlightenment, while at the same time avoiding some of modernity's most serious mistakes. Such a postmodernism offers an exciting way between the Scylla of boundless relativism and the Charybdis of rigorous non-ambiguity, of totalization, of reduction to sameness.

Taking these challenges that are before us seriously will help to successfully enact the triangle drama between our faith in knowledge, the knowledge of faith, and the common responsibility of these two for the world. The attention to these challenges will influence the agenda, as ZCRS through its work relates to the academic community of scholars in religion, the humanities and the sciences, to religious communities and to society.

These three challenges represent a description of what is important to me now and what I bring with me as director of the Zygon Center for Religion and Science. But the concept of these three challenges does not represent the program of the Center for the next decade or so. It is not a program in and of itself. Rather, it serves as a catalyst that triggers some very useful reactions:

This concept challenges compartmentalization in science. It challenges introversion in religious communities. It claims a place on the public agenda for the science-and-religion dialogue and will

not give up the conviction that an increase of both science literacy and religious literacy will have a healthy impact on societies. It will not accept any theological framework that is unable to cope with religious and cultural diversity. It will not accept any scientific framework that is not self-critical of its own methods, and does not ask questions about who is deciding, doing and presenting research, for whom and from which perspective.

Cultivating religion-and-science work means cultivating unrest.

Currently, ZCRS is working on a science-and-religion project for the upcoming Parliament of the World's Religions – a project I see as a very good embodiment of these ambitions.

Cultivating religion-and-science work means cultivating unrest. Let me express what I mean by that, both in theological and more biological language. Expressed in the theological language of my Protestant Christian heritage, this notion of “cultivating unrest” is a faithful expression of what the Reformers called *ecclesia semper reformanda* – a church always in need of reformation, a community always in need of renewal. In terms of biological imagery, I think of science and religion as complex bodies of knowledge. In order to keep well and alive, the muscles of the body need to keep up a certain level of tension, something for which the Greeks had the lovely word *eu-tonos*, good tension. It is this vision that I see as a promise for the future of the Zygon Center – as a vibrant voice in and for the academic world, in and for the religious communities we relate to, and in and for the societies we are part of. ■



Antje Jackelén and Philip Hefner. Photo courtesy of Ingrid Shafer.

Tribute to *Philip Hefner*



From 1988 - 2003, Philip Hefner directed the Zygon Center (CCRS/ ZCRS) through the world of science and religion. In May, he retired from the Center and Antje Jackelén stepped into his place. On the next few pages are reflections on Phil and his work at ZCRS from the Center's many friends.

"There is a poignancy in all things clear,
In the stare of the deer, in the ring of a hammer in the morning.
Seeing a bucket of perfectly lucid water
We fall to imagining prodigious honesties."

From "Clearness" by Richard Wilbur

Phil's work at ZCRS was clearly a prodigious effort from imagination through vision to the hammering out of a Religion and Science Center with colleagues, over time."

—Charles Smith

"My heart brims with pride and gratitude for Philip Hefner's pioneering work of bringing together great thinkers in the fields of science and religion through the Zygon Center. The example of his great adventure in building interdisciplinary bridges challenges the rest of us to strive for the integration of all forms of human knowledge."

—Esther Menn

"Listening to Phil speak both formally and informally over the years has been a tremendous influence on my thinking. His clear views, concise questions, and unique approach in combination with his personal kindness and thoughtfulness have dramatically enhanced the science-religion dialogue and the success of the ZCRS efforts."

—Gayle Woloschak

"You have given us much to think about in your talk that humans are co-creators; however, in your work, your example and in your life you have modeled for us in a wonderful way what it means to be faithful as a co-worker in the kingdom of God. You spent a lot of time on science and religion, a kind of mestizo. We are fortunate to have you as a faithful friend."

—Mai & Harold Vogelaar

"Philip Hefner has carried on the legacy of Ralph Wendell Burhoe in establishing a vibrant community of religion and science scholars centered in Hyde Park. For the past 15 years, my calling has been related to this community which would not be here without the outstanding dedication and scholarship of Phil Hefner—nor would I have found it without his personal outreach."

—Carol Rausch Albright

"Phil's many roles – in the IRAS leadership, at C/ZCRS, as editor and writer and lecturer – are so enmeshed and coherent that I am at a loss to tease out his contributions to ZCRS per se. So, I offer a celebratory toast to his capacity to transcend positions and titles and infuse his capacious mind and heart into the entire religion-and-science dialogue."

—Ursula Goodenough



Tribute to Philip Hefner, continued

"Phil Hefner has always been impressive with his intellectual boldness, especially in his construction of new metaphors to help the rest of us to understand how better to relate science and theology. His concept of the Created Co-Creator is an outstanding example of what I mean. He has been a real inspiration for me and for many others."

—John R. Albright

"I have been deeply indebted to Phil – for his own writing, for the breadth and depth of *Zygon* under his leadership, and for a variety of workshops and symposia in which I have participated. One could count on him to introduce clarity into a complex discussion, and a touch of humor – especially in his exchanges with Michael Ruse! Phil now has an adaptive niche in which I know he will continue to contribute in so-called retirement."



Philip Hefner with his wife, Neva. Photo courtesy of Ingrid Shafer.

—Ian Barbour

"I have always admired Phil Hefner because he is willing to take intellectual chances to discover new ways of seeing things and break new ground. Personally, he was the one who through his support and acceptance brought me into the science and religion dialogue."

—Jim Moore

"I have known Phil for over 30 years since a conference in Rensselaerville in 1972. The Lutheran theologian and this Anglican priest-scientist soon found they were on the same wavelength! Our mutual respect and enlightenment were enhanced when Phil had a sabbatical in Cambridge when I was preparing my 1978 Bampton Lectures on "Creation and the World of Science" (actually about to be reprinted by OUP) and I like to think that we both then shaped each other's thought in a permanent way. Many visits to Chicago and many happy encounters elsewhere since then have continued to leave me grateful that at least one systematic theologian can take the world of science completely seriously and still remain faithful to his inherited tradition in a creative (dare I say 'co-creative?') way."

—Arthur Peacocke

"Colleague, friend, and mentor. Phil Hefner has been all of these. I'm grateful for what he has contributed to the dialogue between religion and science, but also for his creative and courageous theological insights. Phil's theological work has given many of us a place to stand within the church. For that, I am most grateful."

—Ann Pederson

"Since 1977, when I joined the religion and science discussions that now orbit around the Zygon Center (and undoubtedly for years before), Philip Hefner has been the central figure. His knowledge, wisdom, academic insight,

personal warmth, organizational skill, and constancy have been vital for our dynamism in continuing the work initiated under the leadership of Ralph Burhoe. Professor Hefner is a theologian with excellent perceptiveness of what is most worthwhile in science. I am a scientist who, under Phil's guidance, has come closer to an understanding of the idea of God. Phil's editorial leadership of the journal, *Zygon*, continues to be extremely productive, both in the profundity of his thematic conceptualization and in

the way he nurtures excellence in submitted papers. I very much hope his recent retirements as LSTC systematic theologian and as ZCRS director help free him to maintain or increase his role as our intellectual and spiritual leader, catalyst, and co-creating symbiotic partner."

—Bob Glassman

"There are at least two major ways in which Philip Hefner's teaching and writing have influenced me.

Phil's ability to incorporate and stay in dialogue with the most diverse and unrelated works and people is one of them. From Ritschl to Donna Haraway, from Tillich to Frida Kahlo, from evolutionary biology, current developments in technology to art and literature, diversity and hybridity – all of them find a kind and kindred response in the work of Philip Hefner. The second way in which Phil's work has touched me is a more complicated one. As I said above, Phil has the ability to recognize what is relevant and important. Not only that, as a teacher, Phil brings something meaningful and useful out of student papers and discussions that for most of us stays hidden. When the rest of class sees difficulty and confrontation, setback and disagreement, Prof. Hefner sees an amazing opportunity and meaning. Dialectics of paradox and metaphor bring out meaning in this world and order our experience in a way that was not there just a moment ago."

—Mladen Turk



"Phil has been an inspiring teacher and leader. Without his vision and encouragement and support of many others, CCRS/ZCRS and its programs, including the Epic program, would not have happened. Thanks to him, the last 15 years have been the most rewarding years of my life."

—Thomas Gilbert

"I am grateful for Phil Hefner's pioneering work in religion and science, perhaps the most vivid example of how he works so faithfully at the intersection of church and world, personal faith and public witness. I'm glad that he holds together things many others keep separated, e.g., scientific analysis and poetry. I look forward to the works he is producing and our continuing relationship in the years to come."

—Kadi Billman

"A friend of ESSSAT with an open mind to serious challenges, Phil has been a very regular presence in the European discussions on religion and science. At the first European conference, in Loccum in 1986, Phil was there as a valued participant and speaker. As a beginning graduate student, I approached him on possibilities for spending time for research in the USA - and he turned out to be eminently approachable and so I happened to be in Chicago in the first half of 1988 when the Zygon Center officially started business. Phil and Neva have [since the Loccum conference] been very regular presences at the conferences organized by ESSSAT, the European Society for the Study of Science And Theology. Neva and Phil have become friends of us and of many others in ESSSAT."

One of the specific things I value in Phil's work, aside of his engagement and creativity, is the openness towards the secular study of religion. As has been the history of IRAS, of Burhoe and some of the other ancestry of the Zygon Center, Phil too has made clear that we are not just dealing with theology and science, as two competing intellectual systems. Phil has always been open to the challenge that comes with asymmetry - religion as human practice is also subject to scientific exploration and explication. For many Europeans the secular study of religion forms the academic setting which is appreciated but perhaps also to be transcended. That Phil is a theologian who is deeply engaged with the most radical sociobiologists and the like, sets us a great example, in my opinion."

—Willem B. Drees



"I am honored by the interactions I've had with Phil Hefner during the relatively brief period of time that I've known him. The Inaugural Event, in particular, underscored his astounding ability to elicit respect and affection from so many diverse thinkers, who find commonality in their honest searches for truth and meaning. It is my fervent hope that Phil's vision for the Center will continue to be realized, and that ZCRS will long continue to be a place where both scientific and religious thinkers can benefit from each other's perspectives and wisdom."

—Grace Wolf-Chase

"Phil Hefner has always impressed me as an erudite scholar, bold theologian, insightful thinker, hearty humanist, and above all, as a thoughtful person with an intelligent sense of humor whose smiling face always reflects love and caring. He has greatly enriched the world of reflection by his many lectures and writings. With the wisdom and guidance he has been providing to the Zygon Journal and Zygon Center, he has significantly served the cause of Science-Religion dialogue, and for this we are all deeply grateful. As he inaugurates this new chapter of retirement in his fulfilled and productive life, I wish him many more fruitful and happy years in the continuing company of Neva."

—V. V. Raman

"Philip Hefner's international reputation as an exciting theologian and one of the great scholars in religion and science is impressive. The standards and dimensions of Phi's work and the impact it continues to have far beyond the United States, speak for themselves. I admire his capacity of asking the important questions. What intrigues me about how he works out answers and concepts, is the combination of radical intellectual curiosity and deep faithfulness. With many others, I appreciate Phil's warmth and great sense of humor."

—Antje Jackelén

"Phil, thanks for providing the faculty of the University of Chicago - faculty from the Divinity School, psychology, biology, chemistry, and physics - a place to meet and discuss the relation of science and religion. Our life at the University of Chicago would have been poorer without the science and religion program at the Lutheran School of Theology at Chicago and your warm hospitality."

—Don Browning



THE EPIC OF CREATION

Scientific, Biblical, and Theological Perspectives on Our Origins

February 2 to May 3, 2004

New Director of Epic

Gayle Woloschak



This coming academic year, Gayle Woloschak is taking over as director of the Epic of Creation lecture series, which Thomas Gilbert led since its beginning in 1989.

Gayle Woloschak is currently a professor and molecular biologist working in the Department of Radiology at Northwestern University's Feinberg School of Medicine. Her primary research is focused on understanding molecular events that lead to cancer and developing nano-devices for intracellular gene manipulation. Dr. Woloschak received her Ph. D. from the Medical College of Ohio in Medical Sciences with a specialization in immunology/microbiology. She did post-doctoral training at the Mayo Clinic in molecular immunology and remained on staff there for several years. She also worked at Argonne National Laboratory as Senior Molecular Biologist before moving to Northwestern. Dr. Woloschak is on a large number of scientific review panels (NASA, National Institutes of Health, e.g.), editorial boards, and scientific committees. She is also an active member of the Ukrainian Orthodox Church, and currently serves as a member of the SCOBA's (Standing Council of Orthodox Bishops of the Americas) Social and Moral Issues Commission. ■

Future of the EPIC OF CREATION

By Gayle Woloschak

The Epic of Creation Program was established by Dr. Tom Gilbert as a seminar course to bring together theologians, Biblical scholars, and scientists from many disciplines to discuss the interface of the Genesis story of creation with scientific accounts of the beginnings of the universe and life on earth. This rich course has made scientific thinking accessible to students of religion, theology, and Biblical studies and at the same time has created a dialogue among the instructors on issues of our beginnings. This year Dr. Tom Gilbert has "retired" as director of the course, though he will continue to be active in the course's directions and in other activities at ZCRS. Dr. Gayle Woloschak has taken over as course director working with Dr. Antje Jackelén, director of ZCRS. In general, the structure and format of the course will remain unchanged, with lectures by noted physicists, biologists, anthropologists, behavioral scientists, biblical scholars and theologians; the lectures will progress from the evolution of the cosmos through the origins of life to the origins of culture and finally to interface this with Biblical descriptions of creation and finally theological reflections on creation and evolution.

One change that is anticipated this coming year (Feb. 2-May 3, 2004) is that the course will be adapted from a quarter to a semester scheduling system, permitting the addition of several new lecture topics to the class. Planned additions include discussion of the evolution of language and discussion of hermeneutics and how this influences science and religion. The scheduling of lectures for the 2004 series has begun. Any person interested in additional information should contact the ZCRS office by calling 773-256-0670 or emailing zcrs@lsta.edu or contact Dr. Woloschak directly at g-woloschak@northwestern.edu. ■



Tribute to *Thomas Gilbert*

On June 10, 2003, at the Lutheran School of Theology Faculty Banquet, Thomas Gilbert was honored for his work at LSTC and ZCRS. Harold Vogelaar, professor at LSTC, gave this speech on behalf of the faculty.

By Harold Vogelaar

I'm pleased to be asked to say a few words about Tom because I know he is a special person who has endeared himself to each one of us in many and different ways. Each of us, I'm sure, would dearly love to say a word of appreciation for all he has done among us, with us and for us at LSTC. Each would have their own story. So it's a privilege to try to conjure up, in just a few minutes, even a flavor of all that Tom means to us.

As most of you know, Tom came to LSTC in 1988 after retiring from a distinguished career in theoretical physics and environmental research at Argonne National Laboratory, where he served as a senior physicist. He came to LSTC as our "resident scientist" as we liked to say, but more formally as associate director of the then CCRS (now ZCRS) to work with Phil [Hefner] and others in the religion and science project. Fortunately, Tom was not given any job description so he was free to do his own thing, to be creative. He said to me, "I thought and thought, and finally came up with an idea."

As it turned out, Tom had a bone to pick with God. He just couldn't believe that the biblical accounts or stories of creation were at all true. So he decided to explore what really happened. To do this, he eventually put together a new course, which he called the "Epic of Creation." His desire was to have a group of renowned scientists give their account

of the origins of life, then for biblical scholars to give their best interpretations of the biblical stories; and finally a group of distinguished theologians to pull it altogether into a meaningful whole. Well, through skill, perseverance and maybe even charm, he succeeded and eventually over thirty scholars offered to give lectures, free of charge (pro bono) so over time this course became one of the best known at LSTC. He told me that at one point they had as many as 117 attending. This doesn't mean all were registered students. The public was invited to attend and they did. Some of you may have attended so you know how meticulous Tom always was in making sure that a rich variety of voices would be present, articulated, and hopefully heard.

According to Tom, that course and its ongoing development is really his crowning achievement, but for those of us who know him we see other contributions that may not be quite as spectacular but which have enduring and endearing qualities.

The best way for me to describe these, perhaps, is to let you listen in on two recent conversations, so typical of the many we've had over the years. Last Saturday I called Tom to make an appointment for Sunday after Commencement. I said I needed to gather a little more information and to clarify a few things. Fifteen minutes later we were still talking on the

phone and here's a snippet from our conversation.

Tom: "I'm either a Protestant mongrel or a misplaced Unitarian."

Harold: "Really?"

Tom: "Well, I was born a Methodist, later moved to a congregational Church, and then got married to Winifred in a Methodist Church where we stayed until it got too confining at which point we moved again and joined a Presbyterian church which





is Winifred's denomination. And for the last 13 years I've worked as an Adjunct Professor at a Lutheran seminary. Don't you think that makes me a Protestant mongrel? Some people might describe me as a heretic. The problem is that I find it difficult to believe in a God who existed before humans made their appearance on earth and who will continue to exist after humans no longer do."

This he admitted might be problematic for some of his Presbyterian and even Lutheran friends, but nevertheless, this is his conviction. In fact he said he was even glad to be thought of as a heretic since this put him in the good company of both Jesus and Martin Luther. Perhaps only perceived heretics, he said, can really make a difference. But though he may be thought of as a heretic, he cautioned that he could never be accused of apostasy because he takes the New Testament far too seriously for that.

Well, some minutes later we were talking about the recent Iraqi war and Tom mentioned that before the war he had been totally against it, but that now he thinks maybe it was the right thing to do, given the nature of human beings and the reality of evil.

Tom (quoting the Old Testament): "Sometimes radical surgery is necessary to excise the cancers of society."

Harold: "Tom, you know what, you are a heretic." We both laughed.

Anyway, you get the drift.

The nice thing about Tom is that he's always ready to talk and to listen and to explore together topics that are of interest to all of us and to the world at large. I don't recall ever engaging with Tom in a conversation on a trivial matter. And during meetings he always listens intently, asks probing questions and often provides insights that move the conversation forward.

And he's been doing that for years. Long ago in a letter to the CEO and Executive Director of the American Institute of Physics, he commented on a problem and used these words: "this matter needs to be aired fully, with full disclosure and presentation

of the arguments from both sides." I have no idea what the argument was but his words do capture what all of us have come to appreciate about Tom. He really does love to fully air any matter relating to science and religion, but also to listen, attentively, to the disclosures and arguments of all sides.

Tom has told me that these past fifteen years at LSTC/ZCRS have been the most enjoyable and fruitful years of his entire life. I think that's a remarkable statement. And I'm sure all of us would want to echo, that these years with Tom, our faithful skeptic, have indeed been fruitful and enjoyable years.

We know you're not retiring Tom, you're just changing hats and you'll be around for some more years, and that's good. Because as Vítor [Westhelle] once said, when you commented that you were really just an outsider, He said: "No Tom, you're not an outsider, you belong here." Yes, you belong here. And if you stay long enough Tom, you just may adjust your worldview, just a little, and then, who knows, you may even get your theology straightened out. ■

Note from Tom Gilbert:

This year was a transition year for me, from directing the Epic Program and dabbling with potential research ideas that have filled my hard disk with many megabytes and to doing nothing but research -- some of which might lead to publications. I enjoy the "flow" experience that research brings above anything else. I've harvested enough questions and ideas from the Epic Program to keep me occupied the rest of my life. I am deeply grateful to: Gayle Woloschak for taking the responsibility of directing the Epic Program; Karl Peters for rescuing the floundering syllabus project; the lecturers and authors who have made the major contribution to the Epic Program pro bono; David Glover for his indispensable and continuing role as chief operating officer of the Epic Program; Marcy Gaston for her help; LSTC faculty for their support; Antje Jackelén for her support; and above all, Phil Hefner for his encouragement and support. I can now be confident the Epic Program will flourish and the syllabus will get published. Whether my research efforts will bear fruit is uncertain, but I'll have fun doing research, exploring whatever paths look interesting.



Council for a Parliament of the World's Religions

A New Partnership Emerges

By James Moore

At the request of the Council for a Parliament of the World's Religions, the Zygon Center has accepted a central role for the next Parliament to be held in July of 2004 in Barcelona. This role is specifically designed to include three areas for symposia: (1) a scholars' symposium which will explore the current state of the science and religion dialogue and attempt to map the dialogue with the intent of discovering how issues for dialogue emerge out of different regional interests, cultural heritages and specific needs; (2) a symposium designed to bring the best science to bear on issues of food, both the issues of scientific technology related to food production and the issues of food distribution and needs; and (3) a symposium building off of the work already begun in interfaith dialogue at the Center with a particular focus on HIV/AIDS and how this issue can become a point of convergence both for religion and science and for the world's religions.

In subsequent meetings the leadership of the Parliament and of the Zygon Center agreed that these symposia should be a beginning point for distribution of materials that could especially assist religious leaders to bring the benefits of a religion and science conversation to their various constituencies. In addition, the Parliament and the Zygon Center have agreed to stage four separate follow-up workshops over the next three years in different regions around the world using the emerging partner-cities network of the council. These workshops will further extend the impact of the materials and the discussion begun at the Parliament with the aim of equipping local leaders both with information and to help those leaders build a local structure for dialogue and for possible cooperative action.

The main goals of this partnership are to (1) broaden the basis for the dialogue and reach

beyond the main circles so far involved and bring key new key persons and opinion leaders to the table; and

(2) to address the issues that affect the lives of millions of people throughout the world, regardless of the level of the social, economic and technological development of their countries. The forum of the Parliament meeting will have the potential of reaching many of the approximately 12,000 attendees, many of



James Moore

whom are likely to actually attend one or more of the three symposia. In addition, this project will be a key element of the pre-meeting planning session with 400 of the most important leaders at the Parliament, many of whom have not been part of any religion and science conversation to this point. Finally, the Parliament is strategically located to coincide with the Universal Forum of Cultures - Barcelona 2004 (sponsored by the United Nations) which expects 25,000 attendees a day. The potential for extending the impact of the religion and science dialogue through this partnership is extraordinary.

Prof. James F. Moore, director of interfaith programs at the Zygon Center, in cooperation with the Parliament, particularly with its executive director, Dirk Ficca, coordinates the project. Prof. Antje Jackelén, director of the Zygon Center, represents the center in this agreement as well as taking the lead in the food project. Prof. Phil Hefner, emeritus director of the Center and editor of *Zygon*, will take the lead in planning the scholars' symposium and Prof. Moore will continue his leadership in the interfaith AIDS project at the center by planning the symposium on HIV/AIDS.



The partnership is an exciting new venture for both the Parliament and for the Zygon Center and builds on a relationship that was already evident at the last Parliament in Cape Town in 1999 (see the March 2002 issue of ZYGON). This collaboration has the possibility of leading toward ever more valuable connections between the Council for a Parliament and the Zygon Center and, with that, a greater understanding of the way that an interfaith dialogue can enhance the value of the dialogue between the sciences and the religions. ■

For more information about the 2004 Parliament of the World's Religions in Barcelona, Spain, visit their website at www.cpwr.org.



By James Moore

This is the fourth year of the interfaith project at the Zygon Center for Religion and Science and the third year that has focused attention on HIV/AIDS as a way of bringing the different religions together around the connections between science and religion. The AIDS pandemic not only is an urgent global problem affecting nearly every culture and, with that, every major religious tradition, but it is also a key area of current biological research in which the work of science is clearly involved in providing ever greater information about our humanness and our ability to survive and thrive. It is also a specifically vital area for religions since the spread of HIV is so closely linked with behavioral choices and requires reflection on how people are motivated to make choices, especially about their health and their sexual activity. Thus, the conversation over the last two years has been quite fruitful in giving shape to an interfaith religion and science dialogue (see the March 2003 issue of ZYGON). This conversation now moves into a new

stage.

First, the AIDS project will be integrated into the next Parliament of the World's Religions in Barcelona in July 2004 as part of the new partnership between the Parliament and the Zygon Center.

Thus, our effort to construct an interfaith science and religion dialogue will be extended greatly by the contact with so many of the leading representatives of the world's religions. In addition, the work in Barcelona will include the production of materials designed to provide information about the current state of how such a dialogue can address the global crisis of the spread of HIV/AIDS. The production of these materials means that our project will not only have them ready for immediate distribution at the Parliament (as many as 12,000 participants are expected), but will be able to use this occasion to make use of the materials for an ongoing and developing discussion aimed at assisting various groups in bringing the conversation to their local communities. The partnership with the Parliament already expects to carry on into four workshops over the next three years to be held in cities of the emerging partner-cities network of the Council for a Parliament. These workshops will be important testing points for the value of our project and will be held in selected cities in different regions of the world.



Ghulam Haider Aasi at the October 2002 AIDS Symposium



Joseph Edelheit at the October 2002 AIDS Symposium

Second, the plans are now developing to hold special seminars locally in the Chicago area aimed at both health care professionals and religious leaders. This is likely to include doctors and nurses, as well as social service providers and counselors. These seminars will fill a clear gap as no such seminars are now offered to health care professionals, which



involve a clear interfaith emphasis. The information shared in these seminars will also include materials that can be distributed and updated as the project unfolds. It is likely that these seminars can be held regularly for a few years as we attempt to reach as many people involved with providing care for people living with AIDS as we can. The seminars may also be a forum for testing the effectiveness of materials that might be used for the Barcelona event.

Thus, the AIDS project is taking shape with very specific foci of activity. The core scholars who have been involved over the first two years of the discussion have already agreed to continue and be involved with producing the materials and giving lectures for the seminars. Once again, the Zygon Center is taking leadership in a critical expansion of the impact of the religion and science dialogue. ■

IRAS Fetes

Browning & Holmes

By Carol R. Albright

On March 1, 2003, the Institute for Religion in an Age of Science (IRAS) honored two of its members, Don S. Browning and H. Rodney Holmes, for their contributions to the field of religion and science. Karl Peters of Hartford Seminary, past president of IRAS presented the awards at a reception held at the home of John and Carol Albright in Chicago.

The IRAS Academic Achievement Award went to Browning, Alexander Campbell Professor Emeritus of Theology and the Social Sciences at the Divinity School of the University of Chicago. Browning is Director of the Lilly Project on Religion, Culture, and the Family, which has produced fourteen major books authored by over a hundred leading family and religion scholars, and sponsors conferences, scholarly and popular articles, and media projects. A student of psychology, he has special interests in psychoanalysis, self-psychology, object-relations theory, and evolutionary psychology, and has written on the cultural, theological, and ethical analysis of the mod-



H. Rodney Holmes, Karl Peters, and Don Browning. Photo courtesy of Carol R. Albright.

ern psychologies. An interest in issues and methods in practical theology led to his work *A Fundamental Practical Theology With Descriptive and Strategic Proposals*. Browning is an ordained minister of the Christian Church (Disciples of Christ).

Holmes was honored with the IRAS Service Award as founder of Archi Pelago, the outstanding program for children and youth at the annual IRAS Star Island Conference in religion and science, now celebrating its fiftieth year. Archi Pelago not only provides fun, learning, and a safe environment for the children, but also frees their parents for full participation in the conference. Holmes is a biologist at Waubensee College in suburban Chicago.

Carol Albright was a recipient of the IRAS Academic Achievement Award at last summer's Star Island conference. ■



Five past presidents of IRAS. From left to right: Karl Peters, Marjorie Davis, Solomon Katz, Ursula Goodenough, Philip Hefner. Photo courtesy of Ursula Goodenough.



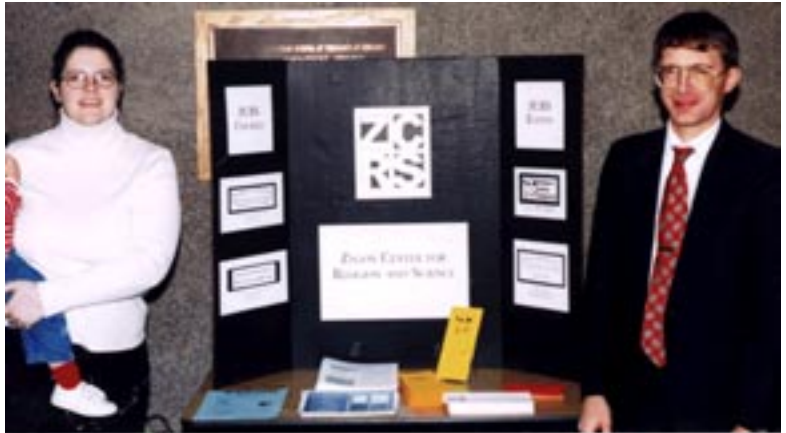
Center News

Jim Moore traveled to Ireland recently and was interviewed for a documentary on religion and violence for Irish television. While in Ireland, he attended a conference on genocide.

Karl Peters visited ZCRS/Chicago in July and gave a thought provoking lecture at the Lutheran School of Theology at Chicago. The lecture entitled, "Dancing with the Sacred: Weaving Lives in a Changing, Interdependent World," addressed the following questions: How do we weave meaningful lives when events beyond our control keep changing the patterns we are trying to weave? How can we weave meaningful lives without diminishing the lives of other humans and other life forms on our planet? The lecture was sponsored by ZCRS and Meadville Lombard Theological School.

LSTC M.A. student, Will Bergkamp, to be published in International Faith and Science Exchange's (InterFASE) new journal Horizons. Bergkamp's paper for Antje Jackelén's class, Time and Eternity, received honorable mention in a competition for students in science and religion sponsored by InterFASE. The paper entitled, "Science and Theology in the Reformation: Copernicus, Cosmology, and the University of Wittenberg," examines the reception of the Copernican system at the University of Wittenberg. The paper sought to discover what was unique about the way in which the center of the European Reformation dealt with the challenge of a new cosmology. The publication date is early 2004.

Antje Jackelén to give a lecture on "Religion and Science -- Models of Interdisciplinarity" at the International Academy, "Religion in Dialogue with Social Science," October 31 - November 1, 2003. The Academy is organized by the Evangelische Akademie Arnoldshain and the International Ph.D. Program of the Johann Wolfgang Goethe-University Frankfurt/M. in Germany.



Marcy Gaston and David Glover standing by the ZCRS display at the HIV/AIDS Symposium held in October 2002.

David Glover takes position at ZCRS as Projects Administrator. Among his many duties at ZCRS, Glover works for the Epic of Creation Program. Glover splits his time between ZCRS and *Zygon: Journal of Religion and Science* where he is editorial assistant.

Jim Moore lectured at the University of Chicago at a seminar on evolution and culture. In his innovative lecture, Moore asked the question, "Does God evolve?"

ZCRS welcomes David Shumaker as a summer intern. David is working on his M.A. at the University of Chicago Divinity School. David is helping ZCRS in many aspects from assisting the editor of the newsletter to doing research for Antje Jackelén.

On April 4-6, Antje Jackelén was the speaker at this year's Goshen Conference on Science and Religion held at Goshen College in Indiana. This was the third annual Goshen conference. Previous speakers were Nancey Murphy (2001) and George Ellis (2002). The lectures and transcripts from the discussion sessions are published by Pandora Press.



Study Emphasis on *Religion & Science*

The Lutheran School of Theology at Chicago (LSTC) offers an emphasis on religion and science, which ZCRS designs and administers. This curricular concentration enables M.Div. and M.A. students to acquire knowledge and expertise in the field of religion-and-science. It will help students establish competency in various aspects of the dialogue between theology and science.

GOALS:

- To gain knowledge about the history and the current status of the relationship between science and religion with special emphasis on Christian theology
- To gain knowledge about scientific methodology and scientific theories
- To gain knowledge about basic concepts and methods of dialogue and the ability to use them in scholarly and popular communication
- To understand the dynamics and correlation between scientific and religious literacy
- To grow in personal integration of faith in knowledge and the knowledge of faith and their common responsibility for the world
- To develop skills to make this a field of life-long learning

The emphasis is comprised of 3 components: Courses, a Field Component, and a Senior Project.

I. COURSE REQUIREMENTS

- The Epic of Creation (first year of emphasis)
- Advanced Seminar in Religion and Science (2nd year of emphasis)
- One Advanced course in theology pending approval of the instructor

- Write papers or do projects on religion-and-science issues in two or more classes in the M.Div. or M.A. program, potentially in any of the basic required courses as well as electives. Arrangements will be worked out between the student and instructor in conformity with the nature and goals of the course. (No more than 2 courses in any one division.)

Students are encouraged to take advantage of the course offerings relevant to their emphasis at ACTS schools and at the University of Chicago.

II. FIELD COMPONENT

One or more of the following options:

- Active participation in a science and religion conference
- Conduct a series of adult forums on religion and science
- For students with backgrounds in theology and philosophy, a practicum in a laboratory (or equivalent) for a minimum of 40 hours is desired

III. SENIOR PROJECT WITH CONCLUDING EVALUATION

The student is to complete a senior project for course credit (thesis or paper) in accordance with the guidelines established by the Lutheran School of Theology at Chicago. Other options may be considered in consultation with the Coordinator.

A concluding evaluation is aimed at helping students integrate the experiences from the different components of their program as well as reflecting on their vocational direction.■

For more information about the emphasis at LSTC, please contact their admissions department at 773-256-0726 or you may contact ZCRS at 773-256-0670.



Religion & Science Students

Past, Present, and Future

Over the years, ZCRS has had many religion and science students. On the next couple of pages, we are highlighting a few of them.

PAST

Charles Smith

St. Paul wrote, “Last of all, as one untimely born, [Jesus] appeared also to me. For I am the least of the apostles, unfit to be called an apostle.” (I Corinthians 15:8-9)

Of course I need to be careful unless someone says “I knew St. Paul and you’re no St. Paul.” I quail at the thought. The similarity between me and Paul is that I am untimely born into professional work in the field of science and religion.

I have always been intrigued by science. As a child, I gazed at the stars and frequented Buhl Planetarium in Pittsburgh. I also collected turtles and frogs in our wooded suburb of Pittsburgh and stood under the huge dinosaur bones at the Carnegie Museum as often as I could.

When I went off to Penn State I hoped to study astronomy but higher mathematics put the stars beyond my reach. I turned to zoology and received solid grounding in molecular genetics and chemistry, as well as, comparative vertebrate anatomy and evolution. However, I had another field of endeavor. The Lutheran Campus Ministry at Penn State carried out a vibrant program during the early 1970s. Being part of that community during those turbulent years made me consider attending seminary. An intern pastor also introduced me to the thought of Teilhard de Chardin.

I entered Rockefeller Trial Year in Seminary Program and began my studies at the Lutheran School of Theology at Chicago (LSTC) in 1973. The class work proved to be challenging and the fieldwork even more so. Phil Hefner and Ralph Burhoe drew me deeper into science and theology. I switched from the ordained ministry program to

the M.T.S. track that led to an academic degree. Unfortunately I was unable to finish as we moved to Virginia where my wife, Mary Ann, accepted a position at NASA where she still works as a senior atmospheric scientist.

I regrouped and returned to biology at William and Mary. In time I found myself using electron microscopy to probe red algae cells. It seemed I was focusing more and more on less and less; I felt I might end up knowing everything about nothing. I switched to education and ended up teaching high school chemistry and biology.

Mary Ann accepted a temporary appointment at NASA Headquarters in Washington, D.C. and I accompanied her, substitute teaching. When we returned to southeastern Virginia, I couldn’t find a teaching job in science education. A friend helped me land a job as an Education Specialist for the U.S. Naval Shipyards. Working in training development for over eight years provided me with a real world approach to adult education. I left the shipyards due to a reduction in force in 1994.

Around that time, Phil Hefner came to our home church as a theologian in residence. We had time to talk and reconnect. Dr. Hefner went out of his way to help reactivate my honorary credits from the 1970s. After completing a thesis, “Theology, Culture, and the Church,” I was awarded a Master of Arts degree. This put me on a science and religion pathway, which led to a Master of Theology and a Ph.D. in 2003.

My excursions into biology, theology, astronomy, and education give me some helpful perspectives into both religion and science. I’m currently seeking a teaching job at a seminary or university and I’m awaiting a call to be a diaconal minister in the Evangelical Lutheran Church in America (ELCA). Diaconal ministers serve on the



borders between the church and the world.

The following is a passage from my doctoral dissertation, “Incarnation and Evolution.”

“Myth and the generation of myth play an important part in evolution. The journey of matter from galactic dust to gorillas and Genghis Khan captivates the imagination and is taken up in the engines of human thought and culture. In a similar manner, the spirals of religious belief have swirled through councils and popular piety, reflecting not only intellectual systems but also the trial and error of things that go bump in history.”

PRESENT

Mladen Turk

Mladen Turk, native of Croatia, has studied philosophy, ethnology, and theology in Croatia. He has completed a Master of Philosophy degree at University of Bergen, Norway, and a Master of Theology degree at the Lutheran School of Theology at Chicago / Zygon Center for Religion and Science.



Mladen is currently at the Lutheran School of Theology at Chicago / Zygon Center for Religion and Science finishing his Ph.D. dissertation titled “Cognitive Theories of Religion and Socially and Behaviorally Adaptive Theories of Religion.”

The topic of his research comes from recent developments in cognitive and biological studies of religion. This important topic presents an attempt to theorize religion scientifically. Topics like religious symbolism, ritual, and beliefs were until recently reserved for religious studies scholars and theologians. In recent time, new developments in cognitive studies of culture have brought a new theoretical outlook on those and similar topics. Sociobiology and evolutionary psychology, as well as structural anthropology, have been helpful

in developing new theoretical framework within which religious phenomena can be viewed. Mladen is working primarily on theories of religion coming from an evolutionary perspective.

Besides the work on his dissertation, Mladen has recently published an article, “On Pattern Recognition, Evolution, Epistemology, Religion, and Evil” in *Is Nature Evil? Religion, Science and Value* edited by Willem Drees. Mladen has delivered a lecture at the 2003 Advanced Seminar in Religion and Science (ZCRS course) titled, “The Paradox of the Epic of Creation,” and also at the University of Chicago workshop for Evolutionary Processes in Culture titled “Cognitive Theories of Religion.”

FUTURE

Tim Maness

Tim has spent his life variously in the Australian state of New South Wales, in Richmond, Virginia, and in the suburbs of Chicago. He pursued a bachelor’s degree in physics with a specialization in astrophysics at the University of Chicago from 1999-2003, and graduated on June 14 of this year. Conversations with friends at the University’s Rockefeller Chapel and at several Hyde Park theological schools contributed to an eventual change of heart about his academic future, moving him to apply to LSTC’s MA program in religion and science, which is in association with the Zygon Center. After completing his master’s degree, Tim hopes to pursue doctoral work in the field of religion and science, and aspires to a university position thereafter. He is spending his summer job hunting in the western suburbs.

George Tsakiridis

Born and raised in Chicago, it was only natural that George Tsakiridis would return to Chicago for his doctoral studies. George will be studying the interaction of religion and science at LSTC, beginning his studies this upcoming fall. He holds a B.S. in electrical engineering from Iowa



George Tsakiridis and Antje Jackelén. Photo courtesy of Terri Nielsen.

State University (1998) and a Th.M. from Dallas Theological Seminary (2002). George's master's thesis is entitled "God and Time: A Comparative Study of Augustine and Paul Helm."

After graduation, he hopes to teach and do research in the growing field of religion and science, making an impact not only in the academic community, but also in the broader world community. Currently George is doing preparatory work for doctoral studies, as well as various writing projects. ■

Donate to ZCRS

The Zygon Center for Religion and Science is proud to offer its programs and newsletter free of charge. However, we do appreciate donations to help offset the costs. The Center receives program support from a handful of foundations, in-kind contributions from the Lutheran School of Theology at Chicago, and income from a modest endowment. In order to sustain its programs, the Center relies on the support of private individuals.

Please contact ZCRS at 773-256-0670 for more information about giving.

Established in 1988, ZCRS is a partnership program of the Lutheran School of Theology at Chicago (LSTC) and the Center for Advanced Study in Religion and Science (CASIRAS). Members of CASIRAS Board include:

Karl Peters (Rollins College, emeritus), President
Philip Hefner (LSTC, emeritus), Vice President
Carol R. Albright (IRAS), Treasurer
Robert Glassman (Lake Forest College), Secretary
Daniel Anderson (St. Paul Lutheran Church, WI)
Donald Browning (University of Chicago)
Thomas Gilbert (Argonne National Laboratory, retired)
Paul Heltne (Chicago Academy of Sciences)
H. Rodney Holmes (Waubensee College)
Antje Jackelén (LSTC)
Solomon Katz (University of Pennsylvania)
William Leshner (LSTC President, emeritus)
James Moore (Valparaiso University)
Ruth Purtilo (Creighton University)
Robert Sorensen (Sorensen & Associates, Inc.)
Malcolm Sutherland (Harvard Unitarian Church, retired)
Audrey West (LSTC)

ZCRS wishes to thank these individuals for their personal support of the Center's activities. We also would like to thank the Lutheran School of Theology (faculty, staff, and board of trustees) for its support of ZCRS over the years.



Zygon®

Journal of Religion & Science

The June 2003 ZYGON

This is *Zygon's* one hundred-fiftieth issue. Just to write that sentence is exciting. We are halfway through our thirty-eighth year of continuous publication. In that time three editors have served the Journal (Ralph Burhoe was the founding editor, Karl Peters, his successor), and each presided over approximately one-third of the total issues. Looking back over these years gives satisfaction, and it is good to remember and honor those whose achievements make our present work possible.

Zygon has always put its gaze on the future rather than on the past, however, and this issue is no exception.

Antje Jackelén sets the tone for this issue by providing her own checklist of what is necessary for "getting ready for the future." Marc Bekoff and Gregory Peterson follow with discussions of Bekoff's research on animals, with particular emphasis on carnivores. Their concerns are seldom featured in religion-and-science literature and, as such, will certainly become more prominent in the future—including in the pages of this journal.

Although spirituality receives considerable emphasis in recent discussions of religion and science, it has not figured so frequently in these pages. Thomas Maxwell (ecology) and Ronald Glasberg (communications) describe differing entrees to spirituality and different tasks to which it may be addressed: Maxwell begins with ecology and addresses environmental challenges, while Glasberg deals with interdisciplinarity through the medium of mathematical ideas.

Following these two specific theme sections, seven articles follow, each of which has the potential to become a classic discussion. Robert Schaible (literature) gives his own view of "what poetry brings to the table of science and religion." Don Browning (religious studies, social science) presents a version of his widely respected interdisciplinary methodology for moving from theoretical issues to practical outcomes, in the context of family and women's rights. Karl Peters (religious studies, philosophy) brings a distinctive perspective to the issues of the evolution

of morality, which is another approach to the task of moving from theory to practice.

The work of Niels Henrik Gregersen (theology), on another theme—risk and religion—that is rarely discussed in the religion-science conversation, is also the harbinger of more attention in the future. One of the most important issues in our field concerns the relation between theological ideas and neuroscientific theories. Palmyre Oomen (philosophy, theology) approaches the daunting task of clarifying the relationships and resemblances between theological discussions of soul and free will and certain insights from the neurosciences and the science of complexity.

Physicist Peter Hodgson argues for an interpretation of Einstein's importance for religious thinking that stands as a critique of much of what he finds in the literature. Kevin Sharpe (theology, mathematics) and Jonathan Walgate (physics) reopen the discussion of the idea of emergence and in the process offer their alternative to Arthur Peacocke's proposals for understanding the idea. Their alternative, we hasten to add, has roots in their own personal conversations with Peacocke.

This issue concludes with a symposium on Helmut Reich's new book, *Developing the Horizons of the Mind*. Reich himself has the last word in this conversation as he responds to the commentaries of two physicists, John Albright and V. V. Raman, and a psychologist, John Teske. This is the third in an annual series of book discussions organized by the Institute on Religion in an Age of Science at its summer Star Island conference.

We echo the words of Antje Jackelén at the beginning: Read these articles, and get ready for the future! ■

—Philip Hefner

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