My first notice of this work was from a BookTV program in February 2008 held at the Dominican School of Philosophy and Theology in San Francisco. In that program, Christoph Cardinal Schonborn devoted much of his time to Teilhard’s vision of a numinous cosmic creation so widely evident from spiral galaxy to Nautilus shell. In Chance and Purpose, a similar deep admiration appears in print.

This is a significant turn in which a major cleric close to Vatican thought places Teilhard at the center of an evolutionary Christianity. This approving tone comes after many decades of exile and censor for Teilhard’s thought and needs to be adequately appreciated. This story of his lifelong rejection by the Vatican was at the center of our lead book, The Jesuit and the Skull, by Amir Aczel, in the previous Perspective.

Cardinal Schonborn, once a student of Joseph Ratzinger, has been a co-author with the now Pope Benedict XVI of the Catechism of the Catholic Church and is presently his close advisor. Schonborn has just presided over the April 2008 World Apostolic Conference on Divine Mercy. Obviously steeped in tradition, the urbane Cardinal seems quite aware that a modern expansion of theological thought for the 21st century is equally appropriate.

Cardinal Schonborn attracted media attention in an op-ed piece in the New York Times for July 7, 2005 where he took issue with a secular Darwinian theory that denies an innate drive and direction. At the same time, he distanced his views from the Creationist scheme. But unfamiliar with the American press and our Intelligent Design row, he felt the article was much misunderstood. As a result this book was written to fully explain his well-considered position.

Published in 2007 by Ignatius Press of Boulder, CO, its first chapter clears ground for a discussion of Creator and Creation from a positive religious sentiment at odds with a negative scientific paradigm. In this regard, Teilhard’s extraordinary corpus can provide a third way and vital synthesis. Subsequent chapters engage the origin of a cosmic genesis, life’s fecund diversity of species, and God’s ongoing creative activity.

Discussed at length is the issue of squaring Divine providence with pervasive suffering and injustice. The place and role of the human is then situated within a developmental theology. From this vantage, Jesus Christ can be situated from Alpha to Omega and involved at every phase unto its fulfillment. One could imagine Teilhard at the author’s shoulder.

Cardinal Schonborn advises that prior ‘dominion’ ought to be leavened with a respectful responsibility for nature’s abiding biosphere. In his conclusion, future directions and pathways for a viable convergence of science and faith are proposed. So
the technical fact of a billion year evolution of flora and fauna is not at all in question by the church. What is problematic to the faithful are unwarranted ends and agendas taken by avowed atheists Richard Dawkins, Daniel Dennett and company based on a narrow, sterile materialism which drain any sense of a divine design or guidance.

Both in his BookTV talk, and in this volume, the author proposes a venerable approach to understand revelation in the second scripture, namely, the Book of Nature.

“Belief in creation acted as godfather by the cradle of modern science. Nicholas Copernicus, Galileo Galilei, and Isaac Newton were convinced that science is concerned with reading what is written in the book of creation. God wrote this book, and he gave man understanding so that he could make out what it says. God wrote the book in a legible script, which is certainly not easy to make out, but it can be read. All the work of science lies in discovering order, laws, and connections. Let us express this with the metaphor of a book: it is discovering the alphabet, the grammar and syntax, and finally the text that God has written in this book of creation.” (22-23)

The essence of this venture is the realization by Rome that one of their own, a steadfast Jesuit until his death on Easter Sunday 1955, who was also an renowned paleontologist, lived and provides, much as a gift, a luminous synthesis of a Christianity that now unfolds in temporal duration. One might then add and observe, it will involve a major revision of the course of religious destiny which could only be comprehensible today. By these lights, the path of history no longer arcs toward Earth’s apocalyptic demise. Rather Earth and life would seem to reach fulfillment in their organic gestation and nativity within the contemplative sentience and mutuality of person and planet.

We next reprint Cardinal Schonborn own words that celebrate Teilhard’s prescient contribution, with the kind permission of Ignatius Press.

**Teilhard de Chardin – Witness to Christ**

“Hardly anyone else has tried to bring together the knowledge of Christ and the idea of evolution as the scientist and theologian Fr. Pierre Teilhard de Chardin, S.J., has done. His fascinating vision has remained controversial, and yet for many it has represented a great hope, the hope that faith in Christ and a scientific approach to the world can be brought together “under one head,” under Christ the “evolutor.”

Teilhard understands the universe as being in a great upward movement to ever greater complexity and inwardness, from matter to life to mind. It is a movement with a goal (and therein Teilhard is differentiated from those who assume that evolution has no direction), leading from biogenesis to psychogenesis. This upward movement is completed, however, when “Christogenesis” comes forth from cosmogenesis. In this ascent, evolution ceases to be passively accepted with the appearance of man, and the stage of auto evolution has been attained. This, in turn, reaches its climax with the appearance of Christ. He becomes the visible center of evolution as well as its goal, the “omega-point.” The incarnate Logos, who appears in visible form at a certain point along the evolutionary axis, had previously been the invisible “motor of evolution.” Christ, at the head of the cosmic body, fulfills everything, guides everything, and perfects everything. “The entire universe is ipso facto stamped with his character, determines by his choice, and animated by his form.” According to Teilhard, Christ becomes the energy of the cosmos itself. For through the Incarnation, God himself has become “immersed” in matter, and within it and from the midst of it, he effects “the leading and planning of what we nowadays call ‘evolution’.” The Incarnation brings about a kind of “Christification” of the cosmos.

Teilhard de Chardin also sees the Cross of Christ within this perspective. It becomes the impulse for the overcoming of what is lacking in cosmic development. Finally, through his Resurrection Christ is freed from all limitation to his power and to the effectiveness of his activity, and he is able to guide the cosmic development toward the omega point, the world’s ultimate “amortization” (turning into love), which will be perfected in the Parousia, the return of Christ.

These brief references to Teilhard cannot do justice to his efforts. The fascination which Teilhard de Chardin exercised for an entire generation stemmed from his radical manner of looking at science and Christian faith together. This unity of vision, in which he intended to unite natural science and Christian faith, was of course problematical. Critics have shown that he could not do complete justice to both sides. His vision of evolution as an upward movement that ceaselessly produces higher and ever higher forms is more of a philosophical speculation that a scientific theory. On the other hand, his “naturalization” of Christ as the driving force in
evolution inevitably ran up against contradiction in theological terms. Despite the criticisms from both sides, many people have come to feel his concerns and have valued them. Above all, the way he was fascinated by Christ is impressive. His love for Christ made him into a kind of “mystic of evolution.” In this he is far removed from the materialistic concepts of the “evolutionism” that is widespread nowadays. For our subject, it is important that Teilhard de Chardin dared a venture that was at the same time full of risks and yet necessary. He incorporated the way that the Christian faith viewed the Incarnation of god in Jesus Christ as an inspiring vision into his research and his thought as a natural scientist. Conversely, he was constantly opening up his activity as a scientific researcher toward the great horizon which had been unlocked for him by his Christian faith.

It is true that faith and science should be distinguished from each other. Yet it is also true that they ought not to be separated. Science has need of the broad horizon of faith. Through his work, Teilhard de Chardin helped many scientists to overcome the prejudice that faith cramps science. Faith in Jesus Christ, in whom all the treasures of wisdom and knowledge are hidden (see Col 2:3), deprives science neither of its freedom nor its zest, neither of its honesty nor its enthusiasm – on the contrary, indeed it further strengthens it.” (141-143)

A companion volume published in May 2008 by Ignatius Press is Creation and Evolution. With a foreword by Cardinal Schonborn, it is a compilation of papers and discussion by Stephan Horn and Siegfried Wiedenhofer from the summer 2006 Castel Gandolfo conference with Pope Benedict XVI. This relevant theme was chosen and convened in response to the controversy swirling around Schonborn’s NY Times op-ed piece the summer before.

The main scientific paper Evolution and Design: A Review of the State of the Art in the theory of Evolution is by Peter Schuster, a University of Vienna biochemist and president of the Austrian Academy of Sciences. A synopsis of this long article, and the gist of the meeting, might be that an older, vested Darwinian version due to selection alone is being surpassed by new appreciations of all sorts of self-organizing dynamics from life’s origins to social phenomena. On the other side, “Intelligent Design” claims of a Divine activity or helping hand need to be much better thought through and presented.

A Letter from Mary Evelyn Tucker & John Grim

John Grim and Mary Evelyn Tucker, president and vice-president of the American Teilhard Association, are presently senior scholars at Yale University, as noted more in our information box on page 16. This note describes their recent June 2008 journey across East Asia as an example of their constant efforts to engender a salutary synthesis of religion and ecology.

We have just returned from a remarkable trip to East Asia where we attended conferences in Korea, China, and Japan. In each country there is growing interest in world religions and ecology.

We had a series of excellent meetings in Beijing. There is very strong interest in having some conferences on religion and ecology in various settings including the Chinese Academy of Social Sciences and Renmin University as well as Beijing University.

In addition, we had a marvelous meeting with Pan Yue, the Vice Minister of the Environment in China who is extremely keen on traditional values of Confucianism, Daoism, and Buddhism becoming more central to environmental protection. He speaks and writes of the necessity of creating an ecological civilization drawing on these traditional religious values. He has published his essays on this topic in English in China and we are hoping to publish them in the States as well.

Pan Yue is very committed to having the Environmental Ministry support further dialogue on this topic perhaps starting as earlier as this fall. He also wants to make sure that all the Harvard volumes on Religion and Ecology are translated into Chinese. The volumes on Confucianism, Daoism and Buddhism have already been translated and will soon be available in Chinese. He has a PhD in the history of religions.

We also participated in an excellent conference at the Academy of Korean Studies outside of Seoul. The vice director is very committed to establishing a PhD program in Confucianism and ecology and wants to develop a curriculum for the schools that would incorporate Confucian values into environmental classes. He says the Ministry of Education is willing to commit considerable funding to this project. He would like us to advise him on this.
In Memory of Teilhard de Chardin, SJ, Priest and Paleontologist

Kathleen Duffy, Ph.D., SSJ

From May 19-25, 2008, a small group of Teilhardians were privileged to visit Beijing for a mini-conference and special geo-tour with the above title in honor of Pierre Teilhard de Chardin. Organized by paleontologists Peter Dodson of the University of Pennsylvania and Hai-Lu You of the Chinese Academy of Geological Sciences in Beijing, the tour included visits to Zhoukoudian in the Gobi desert, several museums, the Peking Union Medical College where Teilhard and others conducted the initial research on “Peking Man,” as well as many other fascinating historical and cultural sites in Beijing.

The highlight of the week was our trip to the excavation site near the town of Zhoukoudian where the fossils of “Peking Man” were discovered. At the entrance to the site and museum, we were greeted by a copy of the bust of “Peking Man” sculpted by Lucille Swan. During a picnic lunch, Ursula King helped us recall Teilhard’s contribution to the “Peking Man” project by reading the account found in her book, Spirit of Fire. After visiting the museum, we viewed the caves where “Peking Man” lived and worked and where Teilhard found evidence that “Peking Man” used fire. One of the posters that flank the path to the excavation site notes Teilhard’s contributions to this important project. Clearly, Teilhard continues to be remembered in China as one of the great vertebrate paleontologists of the early 20th century.

On another day, at the Institute of Vertebrate Paleontology and Paleoanthropology, we viewed some of the many fossils discovered by Teilhard while in China. This was followed by the mini-conference where Peter Dodson reflected on Teilhard’s prolific scientific contributions to the fields of paleontology and geology; James Salmon SJ spoke about Teilhard situated historically within a Jesuit context: Kathleen Duffy reflected on themes found in Teilhard’s letters written to his friends while he was in China: Ursula King described Teilhard’s spirituality for a new Earth Community, and Dr. Hai-Yan Wang provided an overview of the developing Chinese interest in Teilhard’s life and work.

To connect more deeply with Teilhard’s Jesuit heritage, we visited the tomb of Matteo Ricci, an early Jesuit missionary to China and toured the recently-established Center for Chinese Studies which is directed by Jesuit Ron Anton. Our days were full. We enjoyed delicious Chinese food and warm hospitality, and still had time to visit the Beijing Zoo, the Summer Palace, the Forbidden City, the Lama Temple, the Great Wall, and the Ming Tombs.

My Introduction to Teilhard de Chardin
By Amir D. Aczel

We are most pleased to publish these recollections by the renowned science and mathematics writer, whose latest work, featured in the prior Perspective, is a new biography of Teilhard: The Jesuit and the Skull.

I was very fortunate to have been born the son of a ship’s captain. My Dad was the captain of a cruise ship, not very different from the famous “Love Boat” on television. Except that my father’s ship plied Mediterranean waters, calling at ports as exciting as Venice, Marseille, Barcelona, and anchoring off even more exotic places, such as Monte Carlo, Ibiza, and Rhodes. My sister, my mother, and I often traveled on the ship with Dad, even missing weeks of school at a time, making up the difference by independent work aboard ship. It was a very exciting, and educational life. We learned languages, geography, and much about different cultures.

In the early 1960s, my father’s ship was hired out to a French Christian organization that had a fantastic idea for a specialty-cruise. They named it “In the Footsteps of Saint Paul.” The head of this organization was a Jesuit priest named Père Michel Riquet, who, I understand, was the highest Catholic official in France, with strong connections with General Charles De Gaulle’s government. Riquet had been a close associate of Père Pierre Teilhard de Chardin.

The cruise followed Paul’s travels in the Mediterranean, passing through Crete and stopping in Malta, off Saint Paul’s Bay, proceeding to Rome and also calling at Izmir, the closest port to the Biblical Ephesus, stopping at a location in the Eastern Med from which the pilgrims, my father’s passengers on this cruise, traveled to Damascus. It stopped everywhere Paul went on his travels.

My father, who knew the entire Mediterranean like the back of his hand, announced to his passengers interesting facts about the places they passed on the way— islands and bays and lighthouses. He became very close with Père Riquet, who handled all the other aspects of this cruise. They spent many hours together on the ship’s bridge, at night, in fog, and
passing through narrow straits. Riquet introduced my father to the writings of Teilhard de Chardin.

My father fell in love with Teilhard’s writings, and described them to me when I was a young child. Forty years later, after my father had passed away, I picked up the *Divine Milieu* and was also taken by Teilhard’s wonderful prose. I decided to pursue the life of this unique thinker and to write my book, *The Jesuit and the Skull* (New York: Riverhead Books, 2007) about Teilhard de Chardin’s life, concentrating on his years in China and the discovery of the skull of Peking Man in 1929. In a way, this was my small tribute to my Dad.

**Teilhard and Jung Study**

Author Abstract: “In this essay, I have attempted to demonstrate how the thought and writings of Teilhard and Jung converge. In their common interpretation of matter and psyche they saw the interior as well as the exterior role of the process of evolution. Their concepts of libido and radial energy led them to an understanding of the collective nature of the human psyche, and its expansion in culture as the noosphere. Common understandings of the archetypes of evil and of the feminine resulted in affirmation of the interior, spiritual drive underlying human nature, with a valuation of the Christ image for western culture in its cosmic dimension through Jung’s archetype of the Self and Teilhard’s Omega Point. Their common vision, emerging from the struggles of the 20th century, has yet to be appreciated in its application to the world of the twenty-first.”

This latest edition of our *Teilhard Studies* series, newly edited by Kathleen Duffy, is now in its 40th year of publication. The series, and this most recent Study, shows how a deep affinity exists between explorers of the universe and the human. As an Episcopal priest and Jungian analyst, Rev. Franklin Vilas, skillfully explores material and psychic evolution, evil and the shadow, as well as the feminine as complement, and the concept of noosphere as collective psyche. With Teilhard and Jung as guides, these explorations augur for a more humane, mindful future. We next excerpt two quotes chosen by Dr. Vilas for the back cover.

“We must try to penetrate our most secret self, and examine our being from all sides. Let us try, patiently to perceive the ocean of forces to which we are subjected and in which our growth is, as it were, steeped...And so.. I took the lamp and, leaving the zone of everyday occupation and relationships, where everything seems clear, I went down into my inmost self, to the deep abyss whence I feel dimly that my power of action emanates.” Pierre Teilhard, *The Divine Milieu*.

“In order to grasp the fantasies which were stirring in me ‘underground,’ I knew that I had to let myself plummet down into them, as it were...I was sitting at my desk...thinking over my fears. Then I let myself drop. Suddenly it was as if the ground literally gave way beneath my feet, and I plunged down into the dark depths.” Carl Jung, *Memories, Dreams and Reflections*.

**China Church Quarterly Reflects on “Teilhard de Chardin’s Legacy”**

I would here like to thank Fr. Thomas King, veteran Georgetown University theologian and Teilhard scholar, for sending me timely materials for this newsletter issue. Two book reviews are included of new volumes of Teilhard’s correspondence and commentaries. Fr. Tom also forwarded the above newsletter for Winter 2008, published by Seton Hall University, edited by Sr. Janet Carroll, MM, which contained this note.
“The ordination of Bishop Joseph Li Jin for Yinchuan Diocese marked a new phase of growth for the local Church, even as the Christian community also commemorated the origins of evangelization in the region by CICM missionaries. They took the occasion, midst the cold winter weather, to organize a visit to Shui Dong Gou, the site where Jesuits Teilhard de Chardin and Emile Licent discovered the Ordos Man (30,000 years old). During their archeological research between 1923 and 1933, CICM missionaries had been involved in guiding Teilhard and his expedition through the whole Ningxia region. Statues of Teilhard and Lucent, as well as two Chinese scholars who also did excavations there in the 1960s and in 2004, have been erected at Shui Dong Gou, which has become a tourist attraction.”

**Louis Savary’s Teilhard de Chardin: The Divine Milieu Explained Wins 2007 Best Spirituality Book Award**

After years literally on the shelf, recent Teilhardian editions are again gaining premier recognition. We noted this volume (Paulist Press) by the mathematician and theologian in the last Perspective and plan a review and excerpts for the next TP. This is the same award from the Catholic Press Association that our ATA book *Teilhard in the 21st Century* (Orbis Books), a select collection of Teilhard Studies, won in 2003. Google the CPA website for more information. We quote from their award statement.

“Stating that most traditional spiritualities are based on an image of the earth as flat, Savary points out that the past century has seen paradigm shifts in our understanding of ourselves and of the world in which we live. Teilhard realized that these new understandings necessitate a radically new spirituality that could integrate the important scientific facts of our existence into itself. Savary explains the thoughts of Teilhard and includes practical spiritual exercises that aid the reader to put into practice the spiritual insights of Teilhard. Those who read this book, which is written in an engaging style, will be rewarded with a deeper understanding of the spirituality of Teilhard and a strong mandate to apply this spirituality to their lives. Savary has made a major contribution to the appreciation of a spirituality that encompasses the cosmos.”

**Subject, Self, and Soul:**

**Transdisciplinary Approaches to Personhood**

The 2008 mega-conference of the *Metanexus Institute* with the above title will be held July 13-17 on the campus of the Universidad Pontificia in Madrid, Spain. From this web address www.metanexus.net one can learn about the Institute’s innovative projects, along with information about the event. By clicking on ‘papers,’ the conference abstracts of an international array of scholars can be accessed. Among the Teilhardian advocates is our own Kathleen Duffy, speaking on “The Role of Imagery, Particularly Scientific Imagery, in Transdisciplinary Dialogue.” We next cite an introductory note to the conference.

“Who are we? Why are we here? In our age, it is science that purports to answer these ancient questions, while technology promises to make us even “more than human.” But despite our amazing scientific discoveries and technological powers, are we not still “a question to ourselves?” And what new questions about ourselves have been raised in our own times? If we are truly to understand ourselves, our place in the cosmos, and our relation to each other and to the divine, we must adopt rich transdisciplinary approaches that cut across fields of knowledge, institutional boundaries, cultural borders, and religious traditions.”

**Book Reviews**


By Thomas M. King, S.J.

Edouard Le Roy (1870 – 1954) was a professor of philosophy at the College de France as a friend and successor to the renowned Henri Bergson. He was originally a mathematician who switched to philosophy and tried to develop a synthesis of science, philosophy and Christian faith. When Teilhard was in Paris he would visit Le Roy in his home each Wednesday evening to discuss ideas. Teilhard considered this visit, “one of the best ‘spiritual exercises’ of each week.” They reached a substantial agreement on most issues, but Teilhard found him more of an “idealist” than himself. While Teilhard was traveling he wrote over some 25 years the present
collection of letters. In their conversations Teilhard came up with the term “noosphere,” which Le Roy, a fairly well known philosopher, would use and did much to make commonly known.

Both Teilhard and Le Roy were dedicated Catholics who had difficulties with Church authorities (the books of Le Roy were placed on the Index of Forbidden Books on June 24, 1931). Teilhard often told how he and Le Roy shared a common philosophy, yet in the present collection of letters Teilhard rarely talks of the ideas they developed together. He often tells how much their conversations meant to him, he tells of Chinese politics, he discusses his own scientific research, and notes his difficulties in living with the restrictions placed on his publishing articles in philosophy and theology. Especially during the winter of 1928-29 he writes often of his personal anguish to someone to whom he could understand. “I have not been forbidden write, and on this point I will push my rights to the end.” In 1929 he told of coming to a “a passionate indiffERENCE” about the issue; when there were incessant delays in the publication of Divine Milieu, he reflected to Le Roy that it might be better to have it published posthumously as he had put so much of himself into it. It is evident they both suffered under Church restrictions and drew courage from one another.

The book ends with a letter of December, 1954 to Mme. Le Roy after the death of her husband: “You know how much his influence on me was profound both in pushing me to continue to “dare,” and in teaching me to remain faithful, and that in the moment when I had the greatest need. In truth, it was his magnificent love of God and Truth which enabled me to retain the passion of my “vocation.”” Teilhard was a tireless letter writer, and the present text is the 18th volume of his letters to be published.


By Thomas M. King, S.J.

Teilhard always tried to keep abreast of contemporary ideas by reading widely and taking copious notes. He left behind several notebooks of his readings. The present work covers his readings of 33 books (21 in French and 12 in English, none strictly scientific). The work begins while he was in Beijing, but the fifth entry is identified as during his convalescence in Paris (that is, after the beginning June, 1947). Teilhard copied many passages from his readings and often gives his own brief appraisals. The passages were written in his own shorthand for his future reference. They are very well presented with explanatory notes by his editor.

A sample of the books Teilhard was reading shows his wide compass: Pierre Johann’s Vers le Christ par le Vedanta (Teilhard copied many quotes from Shankara and Ramanuja), Frederick Nietzsche’s Le gai savior (When Nietsche says ‘God is dead,’ Teilhard records “…the absolute absurdity of the death of every god.” “All of Nietzsche could be corrected by the substitution of ‘person’ for ‘individual.”’), Arnold Toynbee’s A Study of History (“An excellent general perspective…but he does not see the planetary, just ramification.” Indeed, Toynbee’s positive appraisal of Teilhard is quoted on the back-cover of The Phenomenon of Man).

To continue further, Karl Barth’s God in Action (“Total extrinsicism,” “Radical pessimism”), Albert Camus’ La Peste (The Plague), (For Camus life is the plague, for it is to struggle alone and finally die). Jean Paul Sartre’s Nausea (“At the base of Sartre’s existentialism is that he is unable to see the movement of Humanity-Cosmos”). Some of the other authors considered are: Sommerset Maugham, Charles Darwin, Graham Greene, Aldous Huxley, and Thomas Mann. In China from September 1939 to April 1946, Teilhard had been largely without contact with the currents of Western thought, and he used his Paris convalescence to reconnect with its intellectual and the cultural scene.

Books and Articles of Interest

By way of introduction this section, it seemed as if several items fell into categories. Akin to the books by Cardinal Schonborn, and Louis Savary noted above, authors such as Beatrice Bruteau, Ilio Delia, John Haught, Catherine Keller, and Ronald Modras take up the theme of 21st century Christianity. As a sample of literature at the frontiers of science, we cite contributions by John Barrow, Antony Crofts, and Alwyn Scott, the latter two embracing Henri Bergson’s ‘elan vital.’ Finally, we cite works from Jewish and Islamic traditions, which along with Schonborn’s volume, advocate from the Abrahamic perspective new considerations of natural scripture.

We would also like to say thanks to John Grim and Mary Evelyn Tucker at Yale Divinity School, and to the web skills of Nick Jones, and presently to Tara Maguire, for posting the Teilhard Perspective newsletter for the past several years online at the ATA website: www.teilharddechardin.org.
In the tradition of Lawrence Henderson’s classic *The Fitness of the Environment*, these proceedings of a Templeton conference go beyond critical physical parameters just right for our anthropic presence and show that many properties of biochemical and cellular materiality also seem tailored for the appearance and evolution of living entities. By this ‘biothropic’ addition, cosmic nature appears to exhibit an innate, fertile propensity for life and persons.

To sample the array of papers, Simon Conway Morris argues for an evolutionary inherency which recurs from microbes to societies; an inevitable ‘cosmic convergence’ toward intelligence is noted by Julian Chela-Flores, and the presence of intrinsic natural laws guiding protein forms is proposed by Michael Denton. Paul Davies, Owen Gingerich, John Haught, Harold Morowitz, among others, likewise weigh in. But with an authorship of 25 men and no women, schooled in the old, inhospitable universe, a reflective faculty still seems to elude which could realize the grand genesis discovery these advances portend. The notable double quote is from the paper “Evolution Revisited by Inorganic Chemists.” by Robert J. P. Williams and J. J. R. Fausto da Silva.

“We can now answer the two parts of the question posed by the initiators of this Book. (1) Was life destined to happen in this universe? (2) Was life destined to lead inexorably to greater and greater complexity? Probably, life was destined to happen because it is an effective (and efficient) way to degrade available energy. Once it started, we believe evolution was also inevitable, as an ecosystem would of necessity develop with greater and increasing complexity; but this development is of the ecosystem of organisms plus the environment, not just a development of organisms. The ecosystem evolved in the way it did because of the required chemistry of effective energy capture.” (487)

“But one species is now different, for its development is due to rational thought, not gene changes, to the degree that it is a separate chemotype. Human activity represents a logical end-point of exploitation of the material elements, of energy, and of life, while remaining dependent on a multitude of other species. However, humankind must be careful. The human species is interventionist in that, through understanding, it can to a large extent dictate ecological evolution with little left to chance, at least in principle. However, restraint in uses of resources must be accepted to sustain a favorable environment for survival of the present ecosystem.” (489)
According to this analysis, indigenous knowledge systems are characterized by embeddedness of knowledge in the local cultural milieu; boundedness of local knowledge in space and time; the importance of community; lack of separation between nature and culture, and between subject and object: commitment or attachment to the local environment as a unique and irreplaceable place; and a noninstrumental approach to nature. These features contrast, respectively, with Western scientific knowledge systems, which are characterized by disembeddedness; universalism; individualism; nature: culture and subject: object dichotomy; mobility; and an instrumental attitude (nature as commodity) toward nature.” (10-11)


I have lately found this extraordinary volume in the Boston University Theology Library. Beatrice Bruteau is an esteemed philosopher, author and Teilhardian, from whom the title comes, and one of the most original spiritual thinkers today. A companion to *God's Ecstasy: The Creation of a Self-Creating World*, (Crossroad, 1997), in the present work she updates and reweaves her unique synthesis of a progressive evolution, Eastern traditions, neo-feminism, which altogether achieve a consummate 21st century Christian vision.

In a series of essays that course among these realms and others, Dr. Bruteau proceeds and builds toward a radically novel Earthwide Christianity. In a self-creating cosmic genesis, it is our human destiny to realize by our own volition God’s invitation to become truly Divine children. This salient teaching is called “perichoresis” – verily that the parent is contained within the child, while the child equally manifests and resides in her or his paternal Divinity.

What might this insight mean? On a personal note, when I spoke in 2005 in the Czech Republic at a “Teilhard, Spirituality, and Globalization” conference, my science talk closed with a passing notice that the Jesuit astronomer George Coyne has recently mused that the whole modern evolutionary story seems to be most of all about ‘parent and child.’ Of all the slides and material, this image resonated with the audience, and was taken up by a subsequent speaker.

And a tip for members who try to purchase the book: it is expensive even as used on Amazon, but the publisher’s website offers a $20 paperback edition.

We next offer an extended quote as an example Dr. Bruteau’s evocative style.

“We need to choose to go forward with our evolution, if we are to make sense of our lives. We need to awaken our energy to make this choice and to form the new hyperspersonal being. This energy sleeps in our soul and only waits to be awakened. We can do four things, singly and together, to awaken and activate it: One, we can understand how the evolutionary development of the universe has been working and can be expected to continue; this prepares us to let go of ways of living that do not contribute to continuing growth and to turn our attention in the direction in which the next creative union can be expected. Two, we can open ourselves to being loved as persons, not for any class we belong to or any quality we possess, not for any assignable reason, and we can be willing to accept and believe in the love when it is offered us. Three, to the extent that we have received love, we can love others, freely projecting energies of good will toward each person we touch, seeing ourselves and them in terms of an image such as that of the Holy Communion, in which we each find our personal fulfillment by our creative activities in the complex union of the community. Four, we can take thought and take care that our behavior and our decisions for action in our workaday world embody the sentiments we are learning to experience in these loving attitudes.

If we activate our human energy in this way, we will be able to make the grand option to give
ourselves to one another in the next creative union. And when we do this, we will have, in Teilhard’s view, experiential assurance that our lives fare profoundly meaningful. The human caravan is going somewhere, the human phenomenon is not a cosmic coincidence, but a cosmic climax. All the automatisms (self-organization and selection) of nature, maturing slowly through the eons, are brought to fruition and are transfigured in our consciousness and our freedom, as we take possession of the dynamism of evolution from the inside and enable the universe to realize itself as a supremely personal being. The secret of this universe, Teilhard believes, is that it is the embryonic development of the hyperpersonal being centered on Omega. When we, by our free option, will have brought that being to birth, we will know, without any doubt, that we have fully found our meaning.” (14-15)

“Let me be clear: I take the image “children of God” literally—that is, children truly inherit the nature of the parent. If God is represented as having a certain character, God’s parenthood implies that his (and hers) children also have it. Thus, if God is holy, his children are to be seen as holy. If God is indefinable, that is our clue that each human person is also indefinable.

What does it mean to be children of God in the light of a metaphysics of global spirituality? In summary, I would say that it means to be incomparable, to be love, to be perichoresis, and to be incarnate as creative process.” (109)

The latest clarion manifesto from the Earth Policy Institute, of which former U. S. Secretary of Agriculture Brown is founder and director. Because of its planetary breath, factual depth, and range of practical solutions, if one such document could be a guide for informed action it would be this. It is becoming increasingly clear, via a critical shift in public attention, spurred by a plethora of climate and resource disruptions of record proportions, just look out the window George W., that nothing less than an epochal corrective in human lifestyle will suffice. A voracious first-world consumption, taken for granted, on the backs of impoverished third-world masses lately engulfed in food riots, cannot go on. But it will require an epic metanoia, a change of awakened mind, which soaring fuel prices are starting to impel, for people to move on from unsustainable McMansions to viable ecovillage communities.

A good first step would be to buy his book. And aware of its importance the complete text is available on the Earth Policy Institute website:

www.earthpolicy.org/Books/PB3/index.htm


The report of a 2005 Dahlem (Berlin) round-robin workshop by an international cast on how to comprehend and get in front of so many pressing environmental urgencies. In the vein of Jared Diamond’s Collapse: How Societies Choose to Fail or Succeed, the task was divided into three time spans: the last 10,000, 1,000, and 100 years. These historic spans provide a context to guide future remediations and globally integrated programs founded upon respectful human-biosphere interrelations.

Typical papers are “Climate, Complexity, and Problem Solving in the Roman Empire” by Joseph Tainter and Carole Crumley; “The Lie of History: Nation-States and the Contradictions of Complex Societies” by Fekri Hassan; and “A Decadal Chronology of 20th Century Changes in Earth’s Natural Systems” by Nathan Nantua. But the whole effort goes on without any wonderment of an abiding, conducive cosmology whereof people have a phenomenal evolutionary role to take up and maintain a biosphere homeostasis.


A University of Illinois biochemist attempts to expand the philosophical envelope of thermodynamic thinking in the 21st century to include an inherent semantic or informative essence. This genotype-like quality is seen to infuse and distinguish nature as it manifestly ascends with evolution’s intricate, hierarchical phenotype. In its passage, termed a ‘chronognosis,’ the immaterial message or meanings do not expend a thermodynamic budget, i.e. increase entropy. By way of a careful argument, noted here to second Alwyn Scott’s The Nonlinear Universe, a novel appreciation of Bergson’s ‘elan vital’ can be reintroduced. At the present time, as humankind coalesces into an extra-somatic global intelligence, a ‘supra-phenotypical’ phase can now be discerned. But Crofts holds to the tacit view that these goings on occur as so much ‘machinery.’ The grand step or leap, which this nascent worldwide mind may be making on its own (see also Tetlow herein) to admit an obvious organic genesis, is not taken.


In her latest book, the professor and chair of Spirituality Studies at Washington Theological Union joins Cardinal Schönborn and a growing chorus to elucidate a revolutionary evolutionary Christianity. To do so, she highlights the prescient insights of Bonaventure, Raimon Panikkar, Bede Griffiths, Thomas Merton, and especially Teilhard as a path to a temporally developing genesis creation “pregnant with God.” In this numinous view, Jesus Christ informs its origin, activates and ascends throughout, thus infuses human service, and constitutes its reward and personal goal. Alpha, as it were, through Beta to Lambda to Psi, and onto Omega. The chapter on Teilhard, “The Christic Universe,” is thorough and imaginative. By these lights and advances, phenomenal human persons can become intended “co-creators” within this procreative Divine milieu.

“The same currents that run through our human blood also run through the swirling galaxies and the myriad life-forms that pervade this planet: one and the same evolutionary current moves through all – a single self-transcending current of all-pervading energy that brings new life out of seeming catastrophe. This evolutionary current has the inherent capacity to overcome even the biggest obstacles in a sweeping advance from subatomic particles to human creativity, from hydrogen gas to the human neocortex.” (21)

“If Christ is what we are about, then “doing Christ” is what we are created for, making the power of God alive in the universe through our lives. The idea of a God-centered life as the life of Christ in creation corresponds to Teilhard’s notion of “co-creator.” For God, “to create” is to unite Godself to God’s work, that is, to involve godself in the world by incarnation. God evolves the universe and brings it to its completion through the instrumentality of human beings. The human person is called to be a co-creator – a cooperator with god in the transformation of the universe.” (138)

A second edition by the Georgetown University theologian and Teilhard scholar of his 2000 volume that has become recognized as one of the best treatments of how to achieve a positive synthesis between Christian faith and Darwinian evolution. This present work includes a new chapter written after the celebrated Dover, Pennsylvania court case and ruling on Intelligent Design as outside of science and thus to be kept out of the biology classroom. John Haught held forth as an expert witness at the trial, which his chapter discusses.


Stuart Kauffman is a modern Renaissance person. Originally trained in the 1960’s as a physician, later an ER resident in Chicago, he has since the 1970’s been the prime visionary theorist for a self-organizing, emergent nature. Now at the University of Calgary, his prior writings such as At Home in the Universe are iconic in this regard. He would have received a Nobel Prize in biology if there was one. This present opus covers in various chapters his lifetime concerns such as advancing beyond reductionism, origin of life studies, ‘self-organized critical systems’ poised between order and chaos, agency and work, order for free, a quantum brain, nonlinear economics, and so on with the intent to inform a viable global ethic. His 1990s synthesis of a generative self-organization prior to winnowing selection is now fruitfully accepted.

Upon this conceptual basis, a novel sense of Divine activity accrues. Rather than a remote, juridical Deity whom may capriciously intervene, an intrinsic, natural propensity for emergent creativity is seen by Kauffman to take on a sacred quality. As a result, human beings may embrace a reenchanted, numinous cosmos whence this fertile essence will support life and mind’s future florescence.

“It is now true, it begins to appear, that the unfoldings of the universe, biosphere, and human history are all fully describable by natural law. As we will see, this radical claim has, among its consequences, a radical and liberating creativity in the unfolding of the universe, biosphere, and human culture and history, we can reinvent the sacred, and find a new view of God as the fully natural, awesome, creativity that surrounds us.” (134-135)


In her many writings, the Drew University feminist theologian can be relied upon to push the edge and envelope of imagination as she confronts our current societal polarization. Surely the apocalyptic absolutes of the religious right are a recipe for disaster, but an atheistic backlash is equally counterproductive and conceptually flawed. Having so put, Professor Keller goes with the postmodern flow so as to witness a vectorial spirit moving upon and within a self-organizing, amniotic creation. In the brave book, each chapter contains a list of topics for further reflection and discussion.

“On this nonlinear journey of becoming, the third chapter sends us back to the beginning – where under the sign of creation, the universe emerges out of some mysterious and long-forgotten waters. An exegesis of the first chapter of the Bible yields fishy results, suggestive of an open-ended process of creativity, of a creation that didn’t happen way back when, once and for all and once upon a time, but is happening even now.” (xiv)

“The core doctrine of Christianity, the incarnation, celebrates the embodiment of God in the world. And the Hebrew story of creation illustrates God the Spirit pulsing intimately, touchingly, upon the face of the uncreated waters. The fluidity of an emergent universe is the process of a becoming world. For a theology of becoming/genesis matter matters to the spirit. Spirit matters: it takes on flesh. It is not just a matter of the single incarnation, but of an enfleshment always and everywhere taking place, and always differently.” (52)


In another volume that attempts to rethink and recast a Christianity of relevance to this earthly abide, the Saint Louis University theologian draws upon the lives of five Jesuits - Matteo Ricci, Friederich Spee, Karl Rahner, Pierre Teilhard de Chardin, and Pedro Arrupe. By so doing, one may gains answers to a retrograde fundamentalism, while going on to found a numinous ecological sensibility. At its essential center, as in each of these works, is “Teilhard’s Legacy” of an oriented creation whose path and arrow involves not its demise but a fulfillment of complexity and consciousness of biplanetary dimensions.
“Teilhard’s “neo-humanism” includes the concept of a “living Earth” that gives rise to spirit. Even if Teilhard did not himself take it in that direction, his Ignatian humanism invites a sense of reverence and responsibility for all the variety and wonder of life on this planet. It allows us to see our lives and spiritual destiny as intimately intertwined with all the rest of life on Earth. This is the kind of development of Teilhard’s thought that Thomas Berry presented in his own Dream of the Earth. For many years the present of the American Teilhard Association, Berry augmented Teilhard’s love of the Earth with a sense of obligation toward it. His arguments are compelling. Any humanism today that focuses only on human beings risks being irrelevant. Any spirituality that does not embrace the Earth in all its precious biological diversity lacks seriousness and integrity.” (201)

“We are part of a network of life dependent on the rest of this living planet for our own survival. Teilhard de Chardin’s concept of a cosmic spirituality was ahead of its time, but right for ours. A twenty-first-century spirituality must be able to embrace the planet and not just the people on it.” (289)


In his latest volume, the preeminent Islamic scholar and professor of Islamic Studies at George Washington University lucidly teaches its subtitle: The Vision and Promise of Sufism, Islam’s Mystical Tradition. In contrast to the stern commandments of Shariah law, Sufi wisdom offers a leavening, tolerant, Sophian embrace. What most struck me here, having read Nasr for some years, is his strongest endorsement of an eternal macrocosmic scripture of which the textual Quran is a worldly distillation, indeed as the prism of Islam. Nasr goes on to explain that such a greater literal creation is providentially made legible by virtue of its endowed principle whereof human beings are a microcosmic exemplar.

“Since in Islam the revelation came in the form of a sacred book, many Muslim sages have looked upon nature as a book of God, as did many of their Jewish and Christian counterparts. The cosmos is in fact God’s first and primordial revelation. There is an eternal and archetypal Quran, which is the archetype of both the book revealed to the Prophet of Islam as the Quran and the cosmos, which many Sufis in fact call the cosmic Quran.” (46)


The University of Edinburgh ethicist and Scottish Episcopal priest argues, in part, that the root of our civilization’s dilemma is its vested, erroneous worldview of mechanical materialism, rather than a relational and holistic sense of a precious, viable yet much stressed Gaia.

The late (1931 – 2007) University of Arizona mathematician was a leading pioneer of a revolution to reconceive an emergent nature in terms of complex dynamical systems. The original director of the Center for Nonlinear Studies at Los Alamos Laboratory, he was also a founding editor of the journal: *Physica D: Nonlinear Phenomena*. This present work provides a first hand history from general systems theory to mathematical biology, synergetics, many agent versions, to complex adaptive systems, along with their recent application from fractal galaxies to brains and the biosphere. In so doing Scott champions a hierarchical arrangement as nature’s skeletal scale for rising consciousness. A final chapter, Reductionism and Life, contends that this necessary earlier, linear phase quite misses an innate cosmic animation to be newly engaged as synthesis may take over analysis. Please note the quote’s last line.

“So what is the secret of Life? Although rooted in nature, living beings are organized as immensely complex dynamic hierarchies, where “immense” is used in the technical sense to denote a finite number of possibilities that is to large to list and “complex” implies a class of natural systems that cannot be reductively modeled. Biological hierarchies achieve their immense complexities through processes of chaotic emergence, a phrase that was coined by philosophers to describe mental self-organization and can be applied to Darwinian evolution, the growth of biological forms, and their daily dynamics…. suggesting that there may be something to Henri Bergson’s vitalism after all.” (304-305)


A rabbinical scholar draws upon Judaic wisdom in search of necessary guidance for the growing potential of artificial intelligence capabilities to mold robotic entities, traditionally known as golems. This is one of the best works I’ve seen to address this public issue from a religious basis. However, my main reason to include it is as a companion to Seyyed Nasr’s edition. To complement “liber scripturæ” says Rabbi Sherwin, a second “liber naturæ” ought to be recommended which is finally becoming comprehensible to humankind. The natural universe is thus to be properly appreciated as a Divine creation and scripture, which people can read, write and contribute to as co-creators.

“Medieval Jewish and Christian philosophers, theologians, and scientists, such as Augustine, Gersonides, and Galileo, described God as the author of two books, Scripture and Nature. In this view, the theologian and the scientist share a common vocation: to decode the book written by God. (48) In this view, creation is a process initiated, but not completed, by God. Human beings have a divine mandate to act as “God’s partners in the work of creation,”… (53)


Here is a work I’ve expected for some time but which might not have been doable much earlier. By way of an extensive survey of nonlinear complex system principles, a British computer scientist and IBM Senior IT Architect proposes that the worldwide Internet of interconnected computers and servers, along with its vast content repository, seems to be
taking on the semblance of a sentient life form. The same dynamic self-organization and scale-free networks that grace a human brain, and indeed all of animate nature as a repetitive universality, can be readily identified in this emergent global domain. In this regard an analogy between molecular genes, literal books, and computational software can be made. “Striking resemblances” are further noted between metabolic and neural nets and the Web’s interlinked geometry, which thus appears as organic in kind, not a mechanical automaton.

Along with Alwyn Scott and Antony Crofts independently, (noted herein) Tetlow advises that an intrinsic tendency of natural systems to actively complexify themselves could imply a novel scientific ‘vitalism.’ An “upward hierarchical cascade” is then evident which as it reiterates and quickens at each nested stage augurs for a cerebral humankind. As Tetlow notes, by this expansive vista Pierre Teilhard de Chardin was presciently led conceive a higher global brain and intelligence, the noosphere. He rightly goes on to cite pro and con arguments, and closes with an allusion that when we ask Google a question, whom might be answering?

“Fractals come straight from the sweet spot at the center of complexity, being “repetitions of the same general patterns, even the same details, at both ascending and descending scales.” They tell us that the Universe and all that it contains is made up of folded realities within self-similar worlds, and today modern science is quickly realizing the important role that fractals have played in positioning life as the Universe’s pinnacle example of such folded realities. (42) These examples point to the universality of the fractal as a central organizing principle of our most complex systems, including the Web. Wherever we look in our world the complex systems of nature and time seem to preserve the look of details at finer and finer scales. Fractals show a holistic hidden order behind things, a harmony in which everything affects everything else.” (43)


The volume is the first English translation of the 1967 Russian edition of Selected Works, here translated by Olga Barash and edited by Frank Salisbury. Vladimir Vernadsky (1863 - 1945) was a Renaissance person whose scientific interests over a long career ranged across the nested earthly realms from strata to sentience. These essays, some technical, offer insights into his theory of an organic cosmos whose “living matter,” as a “planetary phenomenon of cosmic character,” complexifies along with an increasing intelligence and reason. If this seems much akin to the work of his contemporary and collaborator Pierre Teilhard de Chardin it may be because they were contemporaries and collaborators. In Paris in the mid 1920’s, with Edouard Le Roy, they went onto conceive a further emergent stage of a worldwide cerebral faculty, the Noosphere. A personal friend of Leo Tolstoy, Vernadsky strongly opposed Marxist totalitarianism, which he could get away with because of his renowned international stature.

“Man is commonly referred to as an individual, freely living and moving over our planet and freely building his history. Up till now, historians, and humanitarians in general, and to some extent biologists, consciously disregarded the natural laws of the biosphere, the only terrestrial envelope where life can exist. Naturally Man cannot be separated from it. And this inseparable connection is becoming clear to us only at present. (407) In the geological history of the biosphere, a great future is opened to Man if he realizes it and does not direct his mind and work to self-destruction.” (414)

“Now we are going through a new geological evolutionary change of the biosphere. We are entering the noosphere. We are entering this new spontaneous geological process at a terrible time, at the time of a destructive world war. But the important thing for us is the fact that the ideals of our democracy correspond to a spontaneous geological process, to natural laws – to the noosphere. So we can look at the future with confidence. It is in our hands. We should not let it go.” (417)
“The Cosmos, the Psyche, & You: An Evolutionary Vision for Spirituality & Psychology in the 21st Century” relates to the very topic of our current Teilhard Study – the grand convergence of cosmogenesis and psychogenesis as witnessed by Pierre Teilhard and Carl Jung. Written by executive editor Carter Phipps, the article provides an introductory entry to each archetypal thinker. Teilhard is then said to have influenced the realms of evolutionary science, transhumanism, the great story, integral philosophy, and the science and religion debate, along with the work of Marshall McLuhan, Mario Cuomo, author Robert Wright, and Al Gore.

The lead story of the next issue is “A View from the Center of the Universe” by senior editor Elizabeth Debold and features an interview with cosmologist Joel Primack and science writer Nancy Abrams, who authored a 2006 book with that title. The subtitle here is “Science Zeros in on the Cosmic Significance of Consciousness.”