

"UNITY IN DIVERSITY"

WAAS

**WORLD ACADEMY OF ART AND SCIENCE
NEWSLETTER**

JUNE 2007

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A MESSAGE FROM THE PRESIDENT-ELECT



Greetings. During the months since the election I have concentrated on bringing myself "up to speed" with regard to the historical legacy of WAAS and the kinds of endeavors WAAS has pursued and commitments our organization has made in recent years. Although a late snowstorm a few months ago prevented me from attending in person what would have been my first Board meeting, a day of conference calling introduced me to the work in progress on nuclear disarmament, interactions with the UN, the Futures project, issues of membership and budget, and the upcoming General Assemblies in Bangalore, India and Cape Town, South Africa.

As part of my education, I would enjoy receiving from you any comments, notes of introduction, or any other information you would care to communicate with regard to WAAS in general, specific programs or organizational issues, your involvement or potential involvement in WAAS, thoughts for future projects, or just an updated bio and contact information (especially e-mail contact and relevant URLs). An early dialogue with Ivo Slaus has resulted in my planning to attend two conferences in Croatia through which I will be introduced to the concerns of and individuals involved in SEED. I look forward to this opportunity to begin to learn first-hand and early on about one of WAAS's sponsored projects and even if I cannot participate in other projects and programs in the immediate future, I would welcome any information about them.

With this, the first elected presidency of WAAS, we will all to some extent enter a new phase in the history of our organization. Clearly, I must rely heavily on the members of the Board of Trustees, heads and members of standing committees for their insights and experience, and as many Fellows as will lend me an ear. Since I'm also the "new kid on the block", and come from perhaps a less traditional background than has characterized previous officials of WAAS, I would like to encourage everyone to participate and learn along with me.

I look forward to the challenges of the upcoming years and to working with all of you in trying to tackle them in new and productive ways. — Jeffrey H. Schwartz / jhs+@pitt.edu

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**DEVELOPMENTS ON
THE NUCLEAR
ABOLITION FRONT**

Events during the past eight months commencing with the nuclear test by North Korea and followed by confrontation over Iran's nuclear program have heightened awareness of the need for urgent steps to eliminate nuclear weapons before proliferation extends even further. The results of US election in November 2006 have encouraged more outspoken criticism of American policy initiatives to reverse the delegitimization of these weapons agreed to by the nuclear five in 2000.

Diplomats from 25 nations committed to the abolition of nuclear weapons met with representatives of a dozen leading international NGOs in a meeting convened by the Middle Powers Initiative in Vienna (March 2007). Recent developments

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**THINKING
ANTHROPOCENE**

In a previous newsletter we announced early planning for future Academy work based on the theme of humanity's entrance into a new evolutionary epoch: the Anthropocene, so named in recognition of humanity's enormous involvement in – and responsibility for – the future of all life on Earth. The term "Anthropocene," first proposed by WAAS Fellow **Paul Crutzen** in 2000, is closely linked to global warming – but isn't simply another word for it. Global warming is a problem that can conceivably be solved, dealt with, or even avoided. The Anthropocene Epoch is the context within which we all now live.

Some basic points concerning this transition:

- Global climate change is the most dramatic indicator of entry into a new evolutionary stage, but not the

(Continued on page 3)

Developments on the Nuclear Abolition Front*(Continued from page 1)*

prompted participants to express greater determination and commitment than at previous MPI meetings. **Garry Jacobs**, chair of the WAAS Nuclear Weapons Abolition Project, attended the meeting which was chaired by **Douglas Roche** (Pugwash Conference) and hosted by **Jonathan Granoff** (Global Security Institute).

In Australia, Norway, India, Malaysia, and Austria (April 2007) **The International Campaign to Abolish Nuclear Weapons** was launched by the International Physicians for the Prevention of Nuclear War as a “broad and inclusive education and advocacy campaign for the total elimination of nuclear weapons,” with the goal of making a strong worldwide case that nuclear weapons can be abolished and their elimination verified.

WAAS is now reviewing a proposal by Board member **John Cox** that the Academy design and launch a program to award a World Academy Prize to the author of an essay (of limited length, perhaps 1,000 – 3,000 words) making the best case for the total elimination of nuclear weapons. The winner of this contest will receive a prize of 50,000 euros and the essay will be delivered to all heads of nuclear states with attendant worldwide publicity. This proposal is now being considered. Meanwhile, 10,000 euros have already been pledged if the project goes forward.

From the Rome Declaration of Nobel Peace Laureates

Nuclear weapons are more of a problem than any problem they seek to solve. In the hands of anyone, the weapons themselves remain an unacceptable, morally reprehensible, impractical and dangerous risk.

The use of a nuclear weapon against a state without nuclear weapons is patently immoral. Use against a state with nuclear weapons is also suicidal. These weapons have no value against terrorists or criminals. Progress toward a safer future is not thwarted from a lack of practical, threat-reducing policy options. The problem is a lack of political will.

As Nobel Peace Laureates we commit to work collectively to achieve the elimination of nuclear weapons, which we believe are unworthy of civilization.

SEED LEADERS CHART NEW DIRECTIONS IN ENERGY, EMPLOYMENT, SECURITY

The Academy’s South Eastern Europe Division (SEED), formally launched at the 2005 General Assembly in Zagreb, is now a thriving organization with nearly 100 members from SEE countries. (Still unrepresented: Malta, Albania, Moldova, and Cyprus – nominations welcome).

In April of this year, SEED leadership met in Zagreb and agreed on a program of action based on the following three categories: energy, employment, and security:

- (1) **Energy**: the importance of SEE as a route for oil and gas pipelines, the potential for wind power, thermal collectors and biodiesel;
- (2) **full employment** in all SEE countries; and
- (3) **security and stability** – SEE as a nuclear free zone of peace under NATO..

The employment issue is of critical importance in most South East European countries, and the program calls for vigorous action aimed at major change within three to four years through integrated efforts by governments, educational/research institutions, and the private sector to make full use of the social resources potentially available for job creation. The employment report (co-authored by **Orio Giarini**, **Garry Jacobs** and SEED Regional Coordinator **Ivo Slaus**) proposes a wide range of measures including encouraging part-time employment, supporting development of small and medium-size businesses, creating opportunities in self-employment, exploring monetary innovations, and enabling workers to continue formal education even after entering the workforce and to engage in productive work as long as they are able and willing.

For a full copy of the report, contact:
 oriogiarini@virgilio.it
 garryjacobs@gmail.com
 slaus@irb.hr.



From left: Nebojša Nešković (Serbia), Budmir Loncar (foreign policy advisor to President Mesic), Simeon Angelov (Bulgaria), Orio Giarini (Italy), Jordan PopJordanov (Macedonia), Agni Vlavianos Arvanitis (Greece), Garry Jacobs (US and India), Zehra nese Kavac (Turkey), President Stjepan Mesic (Croatia), Demet Sabanchi (Turkey), Momir Djurovic (Montenegro), Deniz Ulke Aribogan (Turkey), Emil Constantinescu (former president of Romania), Ivo Slaus (Croatia, Regional Coordinator of SEED)



From left: Demet Sabanchi, President Mesic, Deniz Ulke Aribogan, Zehra Nese Kavac

Thinking Anthropocene

(Continued from page 1)

whole of it. The news is also brought to us by reports on the massive loss of biological diversity, the depletion of aquifers, and other environmental concerns of global scope. Human activities impact, directly or indirectly, every ecosystem and every population of every species.

- The transition involves the increasing scale of human impacts and a growing body of knowledge about the extent of those impacts.
- This is not a situation in which we can make some adjustments and return to a status quo. There will be no such return; human beings are now responsible for all life on Earth and the future of its evolution.
- At the same time that the human species enters into a new stage of conscious environmental responsibility, other large-scale changes are underway. Among these is an acceleration of scientific discovery and technological innovation in several fields – genetics, nanotechnology, information and communications technologies, and materials science – that converge with one another and promise to change our worldviews (and our world) in many ways.
- Passage through an evolutionary transition of this scale in a short period of time can generate many kinds of personal and social stress and conflict. Climate change has been described as a threat multiplier. We believe entry into the Anthropocene Epoch, if approached with creativity and courage, can also be an opportunity multiplier.

We envision a multi-year project that will include the following:

- Two General Assemblies (conferences open to the entire membership), the first in Bangalore in fall 2008, the second in sub-Saharan Africa (possibly Cape Town) in 2010.
- Smaller pre-conference and post-conference meetings organized by WAAS Fellows in different parts of the world. These will focus on scenarios of global change in the near-term future and possible local and regional responses.

Reports and publications in print and electronic media, and on the WAAS website.

These various deliberations will combine “big picture” analyses and engagement with the immediate, concrete, practical and local concerns that relate to them. The purpose of this effort is to develop a worldview that is conversant with the best intellectual effort of our time and also oriented toward concrete and practical solutions.

A major priority, to be kept in our work at all stages of this project, is that all activities must be oriented toward lessening human inequality in all respects: income, access to resources, education, civil rights.

I look forward to working with you and President-elect Jeff Schwartz as this effort proceeds, and welcome your comments at any time.

— Walt Anderson

“Scientists are beginning to accept that Earth has entered a new geological epoch, the Anthropocene, so named because humans have come to rival nature in their impact on the global environment. Paul Crutzen, the Nobel Prize-winning atmospheric chemist who first proposed the term Anthropocene . . . said the concept was winning wide acceptance from colleagues in other fields.”

– Clive Cookson, **Financial Times**

“The Anthropocene is a very different era from the relatively stable and nurturing environment in which humans and our societies have evolved. We should expect more instability in the future.”

– Will Steffen, chief scientist, **International Geosphere-Biosphere Program**

“This change from nature-based evolution to human-based evolution is, by far, the largest change to appear since the first single-cell life appeared. Its consequences will be enormous.”

– James Martin, founder, **Institute for Science and Civilization, Oxford University**

M.S. SWAMINATHAN NOMINATED TO UPPER HOUSE OF INDIA’S PARLIAMENT



The president of India has nominated agricultural scientist **M. S. Swaminathan** to the Rajya Sabha, the upper house of the Parliament of India. Membership in this body is limited to 250 members, 12 of whom are chosen by the president in recognition of their service in fields of literature, science, art and social service.

Prof. Swaminathan, known for his many contributions to international development and hailed as “the father of the Green Revolution,” has served as director-general of the Indian Council of Agricultural Research and the International Rice Research Institute. He is the recipient of many prizes and awards including the World Food Prize and the United Nations Environment Programme (UNEP) Sasakawa award.

He was elected to the World Academy in 1994 and presented, at the 1994 General Assembly in Minneapolis, with a Special Award for his work on behalf of the International Commission on Peace and Food. In 1999 he co-chaired (with **Harlan Cleveland**) a World Academy invitational symposium on development theory, held in Madras (Chennai) India.

WAAS CO-SPONSORSHIP OF LOCAL AND REGIONAL MEETINGS

The Academy now has a larger ratio of new Fellows to old than has been the case in years past, and recently there have been several inquiries about our policy on co-sponsorship of meetings organized by Fellows or affiliated organizations. Actually there is no rigid policy, but we do have a long-standing tradition of encouraging and supporting such initiatives. Some guidelines:

Such conferences are self-funded and invitational, usually with a mix of Fellows and others. Often such conferences lead to the nomination of new Fellows from among the participants and organizers.

We encourage conferences relevant to current and ongoing WAAS concerns – such as human rights, biopolicy, security and nuclear weapons, the Anthropocene transition, the future of higher education, science and art – but subject matter is at the discretion of local organizers.

We encourage conferences on controversial subjects so long as the structure of the conference is one that allows for open dialogue and consideration of alternative viewpoints. We especially encourage pre- and post-conferences on the themes of General Assemblies. Some projects relevant to the proposed 2008 GA are already underway.

REPORT ON UN POLICY FUNCTION NOW AVAILABLE ON WAAS WEBSITE

In the November 2006 newsletter, we invited the Fellows of the Academy to contribute their thinking on a cooperative exercise with the UN Intellectual History Project (UNIHP) aimed at providing advice to the new UN Secretary General on how to improve the policy and research functions of the United Nations, and on what substantive issues would be appropriate for a strengthened current UN intellectual agenda. A number of Fellows responded with useful and thoughtful contributions.

The results of this exercise have been compiled in a paper jointly by us and the Project. It is now available on the Academy website, www.worldacademy.org. Select Publications on the home page, and follow the Reports link.

Our thanks to all those who have participated in this work – especially **Bob Berg**, who made it happen, and **Louis Emmerij**, co-director of UNIHP and also a Fellow of the Academy – and to the following whose contributions are incorporated in the report:

Philipp Aerni, Switzerland
Pushpa Mittra Bhargava, India
Price Cobbs, USA
P.J.D. Drenth, Netherlands
Lloyd Etheredge, USA
Tarun Ghose, India
Orio Giarini, Italy
Edgar Gold, Australia
Ruben Nelson, Canada

NEW BOOK / PIETER J.D. DRENTH WALKS IN THE GARDEN OF SCIENCE

Pieter Drenth served for six years as president of the Royal Netherlands Academy of Arts and Sciences and then from 2000 to 2006 as president of the All European Academies (ALLEA), a federation of 53 academies of sciences and humanities in 40 European countries. The papers in this volume, drawing on that experience, reflect on (1) the importance of science and scholarship for Europe's civilization and economic growth, (2) the social and ethical concerns created by increasingly rapid developments in science and technology, and (3) the contributions that academies of sciences and humanities can make to these debates.

His introductory essay quotes U. S. Atomic Energy Commissioner Dixie Lee Ray's wry observation: "The general public has long been divided into two parts: those who think science can do anything, and those who are afraid it will."

Contact: www.allea.org

NEW FELLOWS ELECTED WINTER 2006-2007

David Brin

Astrophysicist, lecturer, technical consultant, author of science fiction and nonfiction.

Fred Chaney

Deputy president, National Native Title Tribunal, Australia. Former chancellor, Murdoch University. Former senator and member, House of Representatives.

Emil Constantinescu

President, European Generation Foundation. Former president of Bucharest University. President of Romania, 1996-2000.

Anwar Fazal

Activist in areas of consumer rights, health, environment, human rights and social ethics, Malaysia. Former president, International Organization of Consumers Unions.

Angel Gabilondo Pujol

Rector and professor of Philosophy, Universidad Autónoma de Madrid. Founder and former chairman, Association of Contemporary Art and Thought.

Jonathan Granoff

President, Global Security Institute. Co-Chair, American Bar Association Blue Ribbon Task Force on Nuclear Nonproliferation.

Mika Mannermaa

Managing director, Future Studies Mannermaa, Ltd., Helsinki. Former senior researcher, Academy of Finland.

James Martin

Author and entrepreneur. Founder, James Martin Institute for Science and Civilization and 21st Century School, Oxford University. Founder, World Education Corps.

Mathuros Ruchirawat

Vice president for research, Chulabhorn Research Institute (CRI). Secretary general, International Center for Environmental and Industrial Toxicology, Bangkok.

Jan Sadlak

Director of UNESCO - European Centre for Higher Education (UNESCO-CEPES), Bucharest. Researcher, advisor and commentator on higher education and science policy.

Constantine E. Sekeris

Director, Institute of Biological Research and Biotechnology, National Hellenic Research Foundation. Faculty of Medicine, University of Athens.

Robert van Harten

Entrepreneur, environmentalist, peace strategist, Netherlands and India. Director, International Center for Peace and Development (ICPD).

Alberto Zucconi

Psychologist. President and co-founder (with Carl Rogers) of the Istituto dell' Approccio Centrato sulla Persona (IACP), a WHO Collaborating Centre, Rome.

NEW BOOK / CARL SAGAN

THE VARIETIES OF SCIENTIFIC EXPERIENCE: A PERSONAL VIEW OF THE SEARCH FOR GOD

Edited by Ann Druyan

Carl Sagan, who died over ten years ago, left a rich legacy of research in astronomy and astrobiology and an equally rich legacy of popular science books including *The Dragons of Eden: Speculations on the Evolution of Human Intelligence*, and *Broca's Brain: Reflections on the Romance of Science*. He also wrote and produced the 1980 television series *Cosmos: A personal Voyage*, was a champion of the Search for Extraterrestrial Intelligence (SETI) project and spoke out on the dangers to Earth's environment from pollution and the threat of nuclear warfare.

In 1984 he was invited to give the famous Gifford Lectures on Natural Religion at the University of Edinburgh, an honor previously bestowed on leading scientists and philosophers such as Werner Heisenberg, Niels Bohr, Alfred North Whitehead, Albert Schweitzer, and Hannah Arendt. This book, edited by his widow, author and media producer Ann Druyan, is based on those lectures. She chose its title to honor the memory of one of the most famous Gifford lecture series of the past – those of William James on the varieties of religious experience.

In the lectures Sagan spoke on many of his favorite subjects, ranging from extraterrestrial intelligence to the history of science; the thread that ran through them all is his passionate view of science as “informed worship.” Like Einstein, who had emphasized the value of mystery, Sagan praised the sense of the unknown that is always part of the search for knowledge. The book concludes: “If we ever reach the point where we think we thoroughly understand who we are and where we came from, we will have failed.”

Contact: www.penguin.com

“Today the typical person on the Earth is obviously a patchwork quilt of political, economic, ethnic, and religious identifications, owing allegiance to a group or groups consisting of a hundred million people or more. It's clear that there is a steady trend, if the trend continues there will be a time, probably not so far in the future, when the average person's typical identification is with the human species, with everyone on Earth.” — Carl Sagan

NEW FELLOWS ELECTED SPRING 2007

Ibrahim Saleh Alnaimi

Professor of chemistry and Earth sciences, University of Qatar. President, University of Qatar, 1994-1999.

Aris Antsaklis

Chairman, Department of Obstetrics and Gynecology, Alexandra Maternity Hospital, University of Athens. Fellow, International Academy of Perinatal Medicine.

Chiara Benedetto

Professor of gynecology and obstetrics, University of Torino. Fellow, International Academy of Perinatal Medicine.

Carroll Parrott Blue

Filmmaker, photographer, writer, and educator. Author, *The Dawn at My Back: Memoir of a Black Texas Upbringing*. Professor emeritus, San Diego State University.

Richard Boudreault

President and founder, Aerospace Technologies Inc. Montreal. Member, Board of Governors, International Space University. Fellow, International Academy of Aeronautics.

Geoffrey Bush

Chairman, Diageo Foundation, London Benchmarking Group. Director, Tomorrow's People Trust, Ltd. Fellow, Royal Society for the Encouragement of Arts, Manufactures, and Commerce.

Mohamed El-Ashry

Senior fellow, UN Foundation. Adjunct professor of geology, University of Cairo. Former CEO and chairman, World Bank Global Environment Facility (GEF).

Darwish al-Gobaisi

Editor in chief, *Encyclopedia of Life Support Systems* (www.eolss.net). Founding member, Arab Academy of Science (AAS).

Patrick Liedtke

Secretary-general and managing director, The Geneva Association. Advisory Board, European Papers on the New Welfare. Member, executive board, the Club of Rome.

Yoshihiko Nakamura

Professor, department of mechano-informatics, Graduate School of Information, Science and Technology, University of Tokyo. Recognized international leader in field of humanoid robotics.

Aftab Omer

Social psychologist. President, Institute of Imaginal Studies: Graduate School and Research Center, San Francisco. President, Council for Humanistic and Transpersonal Psychologies.

Gill Ringland

President and CEO, St. Andrews Management Institute (SAMI) Consulting, London. Author, *Scenario Planning*. Fellow, British Computer Society (BCS).

Andrew Stone (Baron Stone of Blackheath)

Former joint managing director, Marks and Spencer. Chairman, DIPEX (Database of Individual Patient Experiences, a charitable organization). Governor, Overseas Development Institute.

Susan Stuart

Senior lecturer in philosophy, Faculty of Arts, University of Glasgow. Regional director, European Computing and Philosophy Conference (ECAP).

NEW BOOK / JEFFREY H. SCHWARTZ

SKELETON KEYS: AN INTRODUCTION TO HUMAN SKELETAL MORPHOLOGY, DEVELOPMENT, AND ANALYSIS 2nd edition, revised and updated, with CD

This unique volume examines the skeleton from its developmental basis to the expression of individual variation. It reviews a variety of different approaches used to determine an individual's sex, age, and pathological history and challenges readers to think critically about how to analyze a human skeleton rather than learning formulas for quick results. An ideal text for courses in human osteology, skeletal analysis and bioarchaeology, this book is also a helpful reference for professionals.

Thoroughly revised and updated, the second edition of *Skeleton Keys* features a unique CD-ROM containing hundreds of color images of skeletons and skeletal elements—demonstrating morphology, pathology, and nonmetric variation—that can be used as classroom projections or for individual study.

Contact: Oxford University Press, www.oup.com

CHANGE OF ADDRESS? NEW EMAIL?

You can now update all of your contact information, as well as your areas of expertise and affiliations at the World Academy website. To enter your account for the first time, your username will be the first letter of your given name plus your family name. For example, Keith Vargo would be kvargo. The initial password is WAAS123, and must be changed after you log in for the first time. If you have questions, please send them to: kvargo@worldacademy.org. By keeping this information current, you're sure to get important announcements and other materials in a timely manner.

NEW BOOK / JAN SADLAK AND LIU NIAN CAI, EDITORS
THE WORLD CLASS UNIVERSITY AND RANKING: AIMING BEYOND STATUS

This premier publication of the new series “Higher Education for a Knowledge Society” is the first academic analysis of its kind to detail a major recent development in higher education – the rising prominence of the “world-class university”, as well as the practice of ranking institutions of higher education.

Over twenty essays, by academic leaders and researchers on higher education, provide diverse perspectives on the concept of the world-class university, the criteria for being considered, and the challenges of winning the designation and operating such an institution. It is jointly published by UNESCO-CEPES (Centre Européen pour l’Enseignement Supérieur), Shanghai Jiao Tong University (China) and the Cluj University Press (Romania), and with the support of Deutsche Telekom Stiftung (Germany).

Contact: UNESCO-CEPES, Bucharest, Romania: publications@cepes.ro

NEW BOOK / PATRICK MENDIS
GLOCALIZATION: THE HUMAN SIDE OF GLOBALIZATION AS IF THE WASHINGTON CONSENSUS MATTERED

The essays in this volume are based on the author’s first-hand observations of global forces operating in the Caribbean, Latin America, Africa, and Asia. With a historical framework of globalization and freedom, the author critically explores the influence of U.S. foreign policies and American values on those countries. With illustrative maps and photos, the interdisciplinary analysis explores the human side of globalization as it interplays with local communities. A main theme is American influence through the Washington Consensus and its unintended consequences. With a foreword by **Arthur C. Clarke**, afterword by **A. T. Ariyaratne**.

(Proceeds from sales are donated to tsunami scholarships and a Peace Prize in Sri Lanka, and a memorial scholarship in Minnesota.)

Contact: www.Lulu.com

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