



The Minnesota Assembly *by Harlan Cleveland*

The 1994 Assembly of World Academy Fellows is just around the corner. It will start with dinner on **Wednesday, 28 September**, run through two busy days **Thursday and Friday**, and end at noon on **Saturday, 1 October**. The preliminary program is summarized on page 6.

The opening dinner will be held at the Minneapolis Hilton Hotel. All the plenary sessions will be held in the Cowles Auditorium of the Hubert H. Humphrey Center on the West Bank campus of the University of Minnesota, where a buffet dinner will be served Thursday evening and lunch will also be served on Friday and Saturday.

The Welcome Dinner

The World Academy's Awards Committee is recommending **three special awards** to be presented at the opening dinner: to a scientist, an artist, and a practitioner of public affairs, individuals who have made specialized excellence a springboard for wider contributions to civil society.

The **keynote** speech, "Celebrating Diversity" will be delivered by **Federico Mayor**, a longtime Fellow of the World Academy, who was recently reelected to a new six-year term as Director General of UNESCO.

Plenary #1: The Spread of Knowledge

The **Thursday morning** session will focus on the **spread of knowledge** -- which, accelerated by the outreach of modern information technologies, underlies the pervasive global change in everything else these days. It will be chaired by Prof. **Nicholas Johnson**, a former Federal Communications

Commissioner who for three decades has closely followed the global impacts of changing information technology.

The need to consider the global consequences of knowledge spread for equity, efficiency, fairness, and ethics was the prime reason why the World Academy was founded in 1960. These consequences must now be newly addressed as the world ponders the governance of diversity. We should also consider the implications of knowledge spread for our learning systems.

During an **extended lunch hour Thursday**, Fellows will have a chance to interact in small groups with varied residents of Minnesota at various locations around the Twin Cities -- to compare notes with professionals and leaders in cognate fields of interest, or to see how Minnesotans are trying to govern their own diversity -- in handling, for example, issues of prejudice and conflict among religious and ethnic groups, between men and women, and between generations.

Plenary #2: Population Policy

The second plenary session, on **population policy**, will start in **mid-afternoon Thursday**, chaired by Dr. **Luigi Mastroianni** of the University of Pennsylvania. Population growth still frustrates social fairness and economic development in Asia, Africa, and Latin America. Moreover, larger numbers of people are now moving and migrating, driven by a complexity of fears and hopes, than at any other time in world history. Changes in human activity, including the nature of work, put a greater premium than

(continued on p.3)

Stuart Mudd Award *by Horacio Menano, Chair, Awards Committee*

With great pleasure the World Academy announces that Dr. Harry Smith, Professor of Microbiology at Birmingham University, England, has been chosen the awardee by the Stuart Mudd Award Committee of the International Union of Microbiological Societies.

The Stuart Mudd Award was organized and endowed permanently by the World Academy of Art and Science through the kindness of Fellow Dr. **Emily Hartshorne Mudd**, and is formally administered by the International Union of Microbiological Societies with the cooperation of the World Academy. The Award was created in memory of Stuart Mudd, a distinguished microbiologist and humanitarian, first American President of the International Association of Microbiological Societies (IAMS, the predecessor of IUMS), and past President of the World Academy of Art and Science. The award is given in recognition of outstanding, selfless endeavors and contributions in microbiology for the good of society. Previous awardees are: 1978, Dr. Roger Porter (USA); 1982, Dr. L.J. Mata (Costa Rica); 1986, Dr. Frank Fenner (Australia); 1989, Dr. Carelton Gadjusek (USA). The new awardee will be honored in July, 1994 in Prague, the Czech Republic at the General Assembly of IUMS.

Prof. Harry Smith is a most distinguished microbiologist who has been involved for many years in the study of microbial pathogenicity. His successful research on the mechanisms whereby microbes produce infectious diseases is widely known. The very important studies of Prof. Smith,

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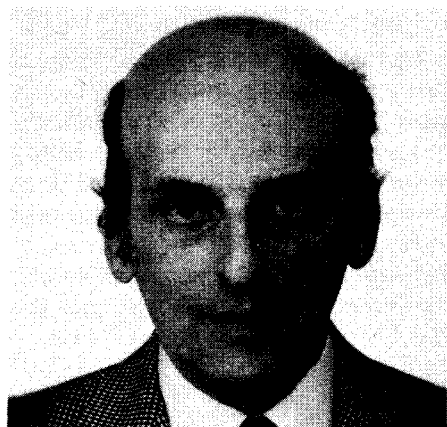


Second Population Award Planned

by *Dr. Luigi Mastroianni, Jr.*

The second triennial Mastroianni-Segal Award of the World Academy of Art and Science will be presented during the course of the 15th World Congress on Fertility and Sterility, to be held September 17-22, 1995, in Montpellier, France. Montpellier is the site of the very first and still on-going medical school in the world.

The award is designed to recognize contributions in the fields of population, contraceptive development, and family health. The recipient is chosen by the Awards Committee of the World Academy of Art and Science, chaired by Fellows Dr. **Horacio Menano** and Prof. **Emily H. Mudd**. Members of the committee include Prof. **William Andrews**, President of the American College of Obstetricians and Gynecologists, Prof. **S. S. Ratnam**, Professor of Obstetrics and Gynecology at the University of Singapore and Past President of the International Federation of Obstetricians and Gynecologists, and Prof. **Robert F. Harrison** of Dublin, Ireland, Secretary General of the International Federation of Fertility Societies.



Dr. Horacio Menano

Dr. Menano will present the award in Montpellier. The recipient will present some aspect of his or her work at the time the award is received and automatically becomes a Fellow of the World Academy.

Brain Drain Conferences Continue

by *John H. Proctor*

The UNESCO Regional Office of Science and Technology in Europe (ROSTE) and the World Academy continue to cosponsor meetings on brain drain issues and military conversion of scientists and technologists. Fellows **Dr. Vladimir Kouzminov**, Chief of ROSTE; **Dr. Horacio Menano**, Executive Director, Gulbenkian Institute of Science, and **Dr. John Proctor**, Secretary General, WAAS, have formed a steering committee with Prof. **Ian Angell**, the London School of Economics and Political Science. Plans are underway for a "Roundtable on Science and Military Conversion" for the fall of 1994. Six speakers will examine in detail ways to diminish the negative socio-economic impact of brain drain and military conversion and recommend positive steps for each nation, and the region as a whole, for greater cooperation and intellectual growth.

Brain drain and military conversion issues are global issues deserving greater attention from national and international governmental and intellectual organizations as well as highly coordinated actions. UNESCO-ROSTE was the first international organization, more than two years ago, to initiate international and regional discussions of this phenomenon in Europe at the Meeting of the Working Party on Brain Drain Issues in Europe, convened in Lisbon, Portugal in November, 1990.

Since then, three additional international Brain Drain seminar/workshops have been sponsored by UNESCO, the last of which, "Brain Drain Issues in Europe" was held in Venice, Italy, April 25-27, 1993 (c.f. November, 1993 Newsletter). ROSTE produced a widely disseminated report of individual contributions and recommendations from the seminar as a whole.

An international meeting on the discussion and evaluation of the national report, "Brain Drain From

Russia: Problems, Perspectives and Ways of Regulation," was held in Moscow, the Russian Federation, February 21-23, 1994. UNESCO and the Ministry of Science and Technology, the Russian Federation, sponsored the meeting attended by Fellows **Kouzminov** and **Proctor**. It is our hope that the frank assessment of the current situation, particularly the Federation's financial support of scientists' pay, will be given immediate attention.

The growing losses of intellectual potential in eastern and central Europe and in Europe as a whole, testify to the alarming fact that the intellectual life of the countries, particularly that of science and technology, is not given adequate consideration in terms of its importance in contemporary society.

Stuart Mudd Award (from pg. 1)

covering a broad spectrum of mechanisms of pathogenicity of bacteria, viruses, and fungi, not only spurred a worldwide revival of interest in microbial pathogenicity, but also showed new ways of thinking about therapeutic approaches. He is the author of more than 50 reviews and 250 original papers. He is a member of the Royal Society and many other learned institutions.

Past President **Carl Göran Hedén** will present the award on behalf of the World Academy, along with Fellow **Rita Colwell**, President of IUMS. Dr. **Smith** automatically becomes a Fellow of the World Academy. He is warmly welcomed by Officers and Fellows. Please share with him your pleasure concerning his selection.



The World Assembly (from pg. 1)

ever on education, especially for girls and women. The resulting tangle of issues requires us to revisit population policy, now a wider subject more important than ever.

Refreshments and a buffet dinner will be served at the **Humphrey Center** immediately after the plenary session, in order to enable participants to retire early or use the rest of Thursday evening for conversations with colleagues.

Plenary #3: The Global Future of Biotechnology

The **Friday morning** plenary, on the **global future of biotechnology**, will be chaired by Dr. Carl-Göran Hedén, chief executive of The Biofocus Foundation which was originally set up by action of the World Academy. Dr. M.S. Swaminathan of India, chairman of the International Commission on Peace and Food, and Walter Truett Anderson, president of the World Academy's American Division, will be among the panelists.

Research in microbiology is rapidly revolutionizing agriculture and medicine, and bids fair to transform many industries as well. So far, most of the potentials (and perils) of this fast-moving science-based change are confined to the industrially advanced countries. But very soon the "biological revolution" becomes a global event: part of developing economies everywhere, part of the international response to such widespread problems as overpopulation, food shortages, epidemics, and environmental deterioration. Biotechnology will not just "fix" these problems; it will deeply influence the climate of knowledge within which they are addressed. And the converging revolutions of informatics and biotechnology present us with major new ethical, economic, scientific, and political puzzles.

Plenary #4: World Governance as a Uncentralized System

On **Friday afternoon**, the World Academy meeting will turn to global

governance, which is very much on the world agenda as we approach the 50th anniversary of the United Nation Charter. To enliven what can too easily be a tired topic, we have styled this session **World Governance as an Uncentralized System**; it will be chaired by Professor **Lincoln Bloomfield** of M.I.T.

This century's two dominant concepts of international governance -- sovereign governments meeting in committees, or some kind of world government -- are both dying in practice if not in theory. Power is leaking out of national governments, and most of the world's problems, too global or too local, seem no longer connected to traditional "decision-makers." In many countries, provincial and local governance also show signs of "the many" taking charge as "the few" dither and delay.

New patterns are in the making, made possible by changing technologies of information and communication. They feature plural centers of power, a mix of formal and informal processes, differing "leaders" for different issues, more dispersion of real power to make decisions. Some world-scale problems (population, environment) seem to require widespread **uncentralized** decisions by millions of people. Can we codify and prescribe for -- or even describe -- this new, no-name system?

Plenary #5: The Governance of Diversity.

Saturday morning will feature an effort to integrate the themes evoked in the whole Assembly, relate them to the governance of diversity, and suggest what actions need to be taken, by whom and how urgently. I have undertaken to chair this session, which will be no picnic.

Late on Saturday morning, all the Fellows present will convene for a business meeting about future plans for the World Academy of Art and Science. Our hope is to adjourn by lunchtime, to accommodate those Fellows who will wish to commence their homeward travels during the afternoon.

Report from Bolinas by Harlan Cleveland and Walter T. Anderson

A workshop on **Global Governance in a Turbulent World**, the third in a series generated by the World Academy of Art and Science and cosponsored by The Meridian International Institute, was hosted February 4-6, 1994, by the Commonwealth Conference Center in Bolinas (Marin County, just north of San Francisco), California. It was organized and chaired by **Walter Truett Anderson**, President of the American Division of the World Academy and Vice President of The Meridian.

Building on two prior workshops, in Buffalo, NY, and in Paris, the focus at Bolinas was on what the rapid and pervasive globalization is doing to change the "problematique" that many scholars and international commissions have been trying to describe, and prescribe for, in recent years.

Five summaries of current efforts to think about "global governance" were discussed:

1. Global governance, said Professor James Rosenau, is a lot of governmental and nongovernmental activities that occur in local places, which constitute such order as there is in world affairs. In our turbulent, high-complexity, high-dynamism era, a worldwide "skill revolution" means that many healthy adult citizens everywhere are more able than their grandparents were to construct scenarios about where they fit in the world. States are still important, but the "multi-centric world" of "sovereignty-free" nongovernmental actors interacts (competes *and* cooperates) with the state-centered world. Authority structures are everywhere in crisis, threatened by the willingness of people to engage in collective action.

2. In a retrospective analysis of the Brundtland Commission, its secretary general James MacNeill said "we have now come to doubt" its basic assumption
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Report from Bolinas (from pg. 3)

tion that states, acting together, "have their hands on levers that are connected to the real world." The Earth summit (June 1992) was also committed to this idea, but states turned out to be unable or unwilling to address issues such as population growth, global warming, and biodiversity. New coalitions -- "carbon states," "contrary scientists," "anti-environment NGOs" -- were empowered by the Information Revolution; the computer chip had "the effect of shifting power from nation-states to individuals, scientific institutes, industries, you name it." How do we frame policy prescriptions in ways that meet these new conditions?

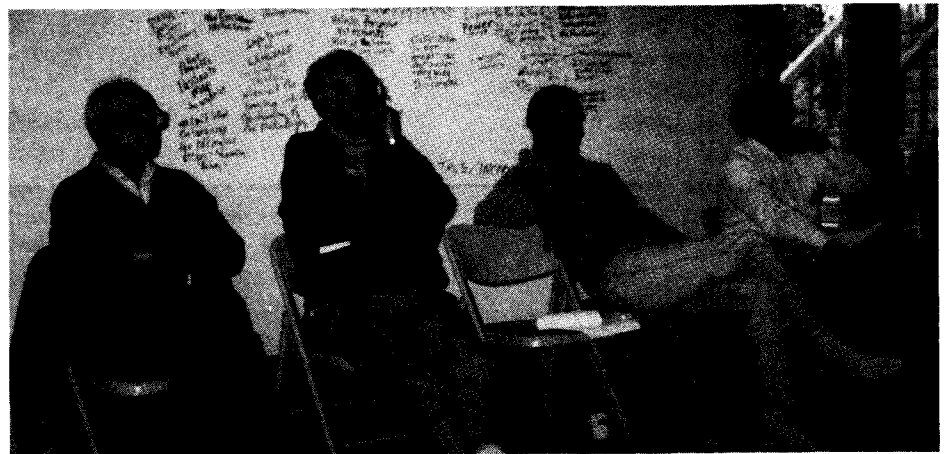
3. João Caraça described the work of the Group of Lisbon on a report called *The Limits to Competition* (to be published later in 1994). The Group, drawn from the world's developed "North," concluded that competitiveness, pushed to its extreme, works against free markets. Competition among enterprises is productive, but competition between states is unproductive. A "global civil society" is emerging. The Group sees four basic social contracts as the glue to hold it together: (a) a "having" contract about such basic needs as water, (b) an "Earth" contract about the global environment, (c) a "democratic" contract about governance, and (d) a "cultural" contract that reconciles identity with community.

4. Global governance options are not limited, said Michael Clough (consultant to the Commission on Global Governance), to "international cooperation" or "centralized rule-making." A third option is a system with room for multiple decision-making centers. There is an increase in the range of *types* of organization, and a parallel growth in the *numbers*, the density of organizations. At the same time, the *character* of organizations is changing, as the "skill revolution" transforms how individuals participate.

5. The more matters are turbulent, said **Yehezkel Dror**, who is writing a re-

port *On the Capacity to Govern* for The Club of Rome, the more they require us to design for the unknown. A system of governance will try to avoid the bad (ecological collapse, doomsday-equipped crazy states), which is comparatively easy; achieve the good, such as the globalization of human rights, which is harder but conceivable; and consider what futures are good or bad, which will engage peoples and their leaders in very difficult choices about equity, justice, and morality.

"Globalization" comprises at least eight related and interacting trends. The most obvious is economic -- global movements of information, money, services, commodities, manufactures, and ser-



From left to right: Yehezkel Dror, James MacNeill, Walter Anderson, João Caraça

vices; the international exchange of money; the explosion of electronic messages; the global reach of even small enterprises. A parallel political globalization is evident in the growing complexity of international regimes, the rising number of "nongovernments" in international politics, and the rapid spread of universal ideas (such as human rights or the perception of environmental threats). More and more cultural messages -- symbols, songs and slogans -- achieve a global resonance; even culturally distinctive art and artifacts (e.g., ethnic cuisine) are widely reproduced. There is a biological globalization, with infectious diseases and many biological organisms and genetic resources in motion.

Human migration is global; young people in many scattered places converge in their tastes, interests, and means of communication. **Inequity** is global too: a shared domination by the affluent elite, a shared resentment by the disadvantaged poor. And a global "civil society" emerges as increasing numbers of people and their leaders act (on environmental issues, for example) as citizens of the planet.

Three disequilibria are evident: a global economy not matched by a global "public sector;" global natural systems affected more by human behavior than anything else (for the first time in world history); and conscious systems unaware of unconscious systems.

There is, of course, resistance to globalization and backlash to its effects: "ethnic cleansing" and religious fundamentalism are examples both current and choice. Each of the great religions asserts universal truths and doctrines, yet some adherents act as counterforce to the globalizing trend, even using the global media to advertise terrorist acts.

The global challenge to governance is to create societies where, in John Gardner's phrase, wholeness can incorporate diversity.

Mixing people in tolerance *not* dividing people in permanently antagonistic communities, seems the the way to go.



News of Fellows
by John H. Proctor,
Secretary General

Fellow **Norman Myers'** new book *Ultimate Security: The Environmental Basis of Political Stability*, published by W.W. Norton & Company, eloquently discusses why security concerns of humankind must include the global issues of environmental resources that underpin our material welfare.

Dr. Hirsch Lazaar Silverman has been made chairman of the Academy of Psychology of the National Academies of Practice in Washington, D.C., USA.

Fellow **Ron Manderscheid** has received the Federal Administrator's Award for Meritorious Achievement from the U.S. Substance Abuse and Mental Health Services Administration for his contributions for President Clinton's national health care reform package.

Fellow **Dr. Karan Singh**, after an outstanding career as a government minister and diplomat of India, has founded the International Centre for Science, Culture and Consciousness in New Delhi.

President **Harlan Cleveland** was the guest of honor at a tribute to him and to the American Refugee Committee, November 17, 1993, entitled, "Promoting Peace Through Diversity: America's Foremost Leadership Challenge".

Fellow **Roman de Vincente Jordana**, during a distinguished career as a microbiologist, decided to seek a degree in medical arts and science. He is now a registered Medical Doctor in Spain. **Vincente Jordana** and **Fellows Carpena Artes** and **Prof. Santos Ruiz** were honored by the Royal Academy of Pharmacy in its publication, *Anvario*, in 1993.

Fellow **William Bevan** has returned to Duke University from the MacArthur Foundation and is active in the Talent Identification Program he initiated when he was Duke's Provost. TIP is aimed at identifying intellectually gifted youngsters at the junior high level and then engaging them in activities oriented toward fostering their intellectual growth.

Information Needed on Fellows

Please help us locate the following Fellows:

1. Prof. Gerald K. Boon, The Netherlands
2. Dr. Peter Brook, Paris, France
3. Mr. Ralph W. Burhoe, Chicago, IL
4. Prof. J. Yanney Ewusie, Nairobi, Kenya
5. Dr. Edwin B. Hutchins, Decatur, GA
6. Prof. Otto Klineburg, New York
7. Dr. Boris Kutaretz, Union City, New Jersey
8. Prof. Michel Magat, Paris France
9. Prof. Harold Taylor, Staten Island, New York
10. Dr. Parvis Saney, New York
11. Dr. Angel Santos-Ruiz, Spain
12. Dr. John A. Wallace, Putney Vermont
13. Imre Varga, Hungary

If you have information regarding the whereabouts of any of the above listed Fellows, please contact Dr. John H. Proctor, Secretary General, P.O. Box 2025, Vienna, Virginia, 22180 USA.

New Fellows

Fellows and Officers of the World Academy warmly welcome the following Fellows recently elected by the Executive Committee:

Dr. Paz. G. Buttedahl
Adult Education, International Development
Ontario, Canada

Mr. Michael Geoghegan
British Diplomat
Senior Advisor - UNDP
New York, USA

Mrs. Laura Huxley
Founder
Children: Our Ultimate Investment
California, USA

Academician Rakhim Khaitov, M.D., Ph.D.
Immunology
Moscow, Russia

Mr. Nobuaki Oda
Japanese Diplomat
Chief of Public Service - UN
New York, USA

Mr. Alfred J. Roach
Industrialist, Financier
American Biogenetic Sciences, Inc.
Long Island, New York, USA

Dr. Vitaly Zhurkin
International Relations
Moscow, Russia

Deceased Fellows

Academician A. P. Alexandrov
Former President of the Academy of Sciences of the USSR
In Moscow, Russia

Prof. Pierre V. Auger
Member of the French Academy of Scientists, Outstanding Physicist
In Paris, France

Prof. F. R. Fosberg
Noted Botanist, Smithsonian Institute
In Washington, D.C. USA

Professor Guiseppe Medici
Agricultural Economist
In Milan, Italy

Professor Roger Revelle
Science and Public Policy
Prof. Emeritus, Harvard University
Prof. of Population Policy
University of California at San Diego
In California, USA

Professor Victor Bruce Darlington Skerman
In Brisbane, Australia

Dr. Hans Speier
Historical Sociology
In Hartsdale, New York USA

Professor Robert Triffin
International Monetary Reform
In Belgium

Professor V. M. Zhdanov
Virologist
In Moscow, Russia



The World Academy Fellowship

Our worldwide fellowship is enjoying a period of vitality with a growing membership. From 383 Fellows and 3 Associate Fellows in 1988, the World Academy grew to 419 Fellows and 7 Associates in 1990. At present, there are 450 Fellows and 12 Associates residing in 54 countries.

In the hope of eliciting your help in nominating worthy candidates as World Academy Fellows, we provide the following review:

Fellows reside in 21 European countries; eight countries in Latin America; eleven Middle East and African countries; 12 countries in Asia and the Pacific; and in Canada and the United States.

It is clear that we should strive for a greater balance among world regions, especially to bring in more Fellows from developing countries.

A look at our Fellowship in terms of some arbitrary categories, chosen for convenience, reveals other aspects of the World Academy of Art and Science.

- Artists, Museum Curators, Journalists, Writers - 39
- Academics, Professors - 154
- Science & Technology Organization Officials, Consultants - 102
- Judges, Lawyers - 32
- Medical Doctors, Surgeons - 34
- Government, Foundation Official, Business, Banking - 89

The number of women Fellows is still far too low: 34 versus 416 men. It becomes a clear and pressing need to nominate outstanding females for membership.

The World Academy is limited by its Statutes to a membership of 500. A Fellow must nominate a candidate in writing, enclosing the candidate's C.V. or list of publications / compositions / works of art. A seconding letter from another Fellow is also required. All items should be sent to:

Prof. Magda McHale, Admissions Chair
 Center for Integrative Studies
 State University of New York at Buffalo
 School of Architecture and Planning
 108 Hayes Hall, 3435 Main Street
 Buffalo, NY 14214 USA

WORLD ACADEMY OF ART AND SCIENCE

1994 Assembly
Minneapolis, Minnesota, U.S.A.
September 28 - October 1, 1994

"The Governance of Diversity"

Sept. 28 Welcome Dinner
Special Awards
Keynote: "Celebrating Diversity"

Sept. 29 Morning
The Spread of Knowledge

Sept. 29 Noon
Small-group sessions with
Minnesota residents

Sept. 29 Afternoon
Population Policy

Sept. 30 Morning
The Global Future of Biotechnology

Sept. 30 Afternoon
World Governance as an
Uncentralized System

Oct. 1 Morning
Summary Session: The Governance
of Diversity
WAAS Fellow's Meeting:
Future of the World Academy



The picture above was taken by Secretary General John Proctor at the March 12, 1994 Executive Committee meeting. From left to right standing: Fellows Horacio Menano; Walter Anderson; Rem Petrov, visiting from Moscow; President Harlan Cleveland and his wife, Lois; Richard Palmer. From left to right seated: Fellows Magda McHale; Emily Mudd, and Associate Fellow Nancy Palmer. Not present were past President Carl Göran Hedén; Eleonora Masini; Nicholas Johnson; and Lorenz Ng.