



WAAS Executive Committee Meetings

This Committee consists of the International President and Officers, the President of the European and the American Divisions, the Chairman of the Committees on Awards, Fellowship, Finance, and Publications and Publicity. Three meetings have been held in 1984; March 17-18, May 25-27, and October 20-21. The next Executive Committee meeting is planned to meet in Paris, February 24, 1985, the day after the stated Conference on Science and Art, Paris, February 22-23, 1985. Each member of the Committee at each meeting reports on past and future activity in his or her area, with corresponding financial needs. The following summary includes the most recent information.

President of the International Division

1. Professor Macdonald, President, reports the Archives of WAAS are in order at his office in Halifax, Nova Scotia.

He is active with Dr. Boris Kuharetz, Professor of Physics at the New Jersey Institute of Technology and Professor Serge Korff in plans for a possible Symposium on Space Science at the New Jersey Institute of Technology, Newark, New Jersey, USA, in the autumn of 1985. The Executive Committee approved possible part funding assistance up to \$5,000.00 for this project when a definite program and budget is presented.

Professor Macdonald also reported on a considered project on Future Social Consequences of Technological Development in Eastern and Western Europe, under Professors Leo Klaassen of Rotterdam, The Netherlands, and Ryszard Domanski of Poznan, Poland. The Executive Committee approved a grant of \$1,000.00 to Professor Klaassen to enable him and Professor Domanski to meet in Paris during the conference and report in detail to the Executive Committee on Sunday, February 24th.

The last week of every month is spent by Macdonald in Strasberg, France as a judge at the European Court of Human Rights.

President of WAAS European Division

2. Professor Hédén, President, reports that preparations are in progress on the Joint Conference by WAAS and the European Academy of Arts, Sciences and Humanities to be held in February 22-23, 1985 at the Gulbenkian Foundation in Paris on the topic, "Art and Science — Lessons from the 20th Century."

There will be a reception for WAAS Fellows and invited guests late Saturday afternoon, February 23; February 24 the Executive Committee will meet. Time and place will be announced later.

Dr. Hédén also reported that Nobel Laureate Dr. Joshua Lederberg has offered to help in the continuation of the computer conferencing experimentation.

President of the American Division

3. Dr. Larry Ng, President, WAAS American Division, indicated that he hopes to have a PAIN Conference in the Spring or Fall of 1985 in which WAAS would play a relevant role in conjunction with other associations. Details of program and budget will be presented to the Executive Committee at the Paris meeting.

Treasurer of WAAS

4. Dr. Emily Mudd, Treasurer, reported that as of November 30, 1984, the approved budget of \$60,000 for 1984 contains an approximate unused balance of \$18,000.00. It was moved that this budget continue in effect until a new budget for 1985 can be approved at the next meeting of the Executive Committee scheduled for February 21, 1985 in Paris. A motion also was approved that the Executive Committee be permitted to use, if necessary, the surplus from the 1984 budget for the Paris Conference until a new budget for 1985 can be drawn up.

Fellowship Nomination

Should you wish to nominate an associate for Fellowship, write to President Macdonald's office — Dalhousie University, Halifax, B-3H, 4H9, Canada to receive the proper form and procedure.

Deceased WAAS Fellows

You may know one or more of the deceased Fellows yet may not have heard of their passing. We have included their last known address, should you wish to write to their families and friends.

Dr. Pierre Chouard, Professor, University of Paris, 11 rue de val de Grace, 75005 Paris France. Mr. Luther H. Evans, Village Drive, San Antonio, TX 78216, USA. Mr. Otto E. Fishnich, FAO, Via della Terme di Caracalla, 0100 Rome, Italy. Mr. Luis Giorgi, President, Union Panamericana de Asociaciones de Ingenieros, Rincon 454, Piso 4, Montevideo, Uruguay. Professor George Harrar, 125 Puritan Drive, Scarsdale, NY 10583, USA. Dr. Mordecai Levy, 1 Harofe Street, Haifa, 34366, Israel. Mr. Eugenio Orlando, Vuera York 3766, Argentina. Professor Derek DeSolla Price, 2036 Yale Station, 285 Prospect, Yale University, New Haven, CT 06520, USA. Professor Pierre Rijlant, Université Libre de Bruxelles, Boulevard de Waterloo 115, 1060 Brussels, Belgium. Professor Alexander Szalai, Attila ut 125, Budapest 1, Hungary. Dr. Axel Hugo Teodor Theorell, Professor, Medicinski-Nobelinstitutet, Biokemiske avdelningen, Laboratorium for Enzymforskning, Solvavagen 1, 104 01 Stockholm, 60, Sweden. Sir Charles G. Vickers, The Grange, Manor Road, Goring, Reading, RG8, 9EA, England. Dr. S. Husain Zaheer, National Research Development Corporation of India, 61, Ring Road, Lajpat Nagar III, New Delhi, 110024, India.

Should you know of the death of a Fellow please send information to the WAAS NEWS EDITOR.

Funds are needed to perpetuate WAAS. Contributions from Fellows, Foundations and other sources are tax deductible when checks are drawn to the "American Division of WAAS." Mail your check to Dr. Emily Mudd, Treasurer, 734 Millbrook Lane, Haverford, PA 19041. We are grateful that already two of WAAS Fellows have sent contributions.

WAAS Fellows Honored



Professor Yehezkel Dror

Professor Dror has returned to the Hebrew University of Jerusalem after a three-year research leave, which he spent with the Russell Sage Foundation in New York, the Woodrow Wilson Center in Washington, DC, the Center for Advanced Study Berlin and the Science Center Berlin. The research period was devoted to a comprehensive study of the "incapacity to govern."

In recognition of his contributions to the study and improvement of public policy-making, Professor Dror has been awarded the First Annual Harold Lasswell Award by the Policy Studies Organization. Harold Lasswell was International WAAS President, 1977-78.

Emily H. Mudd, Ph.D.

Citation below presented to Emily H. Mudd, Ph.D., March 6, 1984 with the S. Emlen and Lydia B. Stokes Medal:

"Pioneering Leader — as professional and volunteer — with intelligence, skill and humor, you have advanced our understanding of two supremely complex human associations: marriage and family. Fifty-five years ago, Your vision and courage ensured the birth of Philadelphia's first family planning clinic. Our staunch and tenacious ally, you have persistently advocated individual reproductive freedom *and* responsibility — to benefit all women, men and children in our community. On our 55th birthday, Planned Parenthood of Southeastern Pennsylvania congratulates you with admiration and gratitude."

Tuzo Wilson Appointed York University Chancellor

The Chairman of York University, R. Bruce Bryden, has announced the appointment of J. Tuzo Wilson as chancellor of York U., in North York, Ont. He succeeds John Stewart Proctor, a founding governor of the university who was chancellor.

Mr. Wilson was educated at the Universities of Toronto, Princeton and Cambridge. He began his career in 1936 as a geologist for the Geological Survey of Canada. He joined the faculty of the U of T in 1946; was principal of Erindale College from 1946-1974; and director-general of the Ontario Science Centre since 1974.

A renowned geophysicist, he was one of the pioneer scientists to promote the theory of plate tectonics, which involve various crustal plates, including continental plates and those on the ocean bottom, rubbing against one another.

An inveterate traveller, Dr. Wilson has circumnavigated the globe nine times. He has written scholarly works, including *Continent Drift*, *One Chinese Moon* and *Unglazed China*.



Ronald St. John Macdonald

Ronald St. John Macdonald, WAAS President was named an officer of the Order of Canada. He received the award from Governor-General Jeanne Sauve at a Government House ceremony October 3rd.

Frederick H. Gloeckner

Frederick H. Gloeckner, Chairman of the Board of Directors of The Winchell Company was honored by the Board of Corporators of the Medical College of Pennsylvania on March 17, 1984 with a Founders Day Award for 1984 "in appreciation of his devotion and dedicated service to the College."

Chronic Pain: a National Health Problem

Lorenz K.Y. Ng, M.D.

Available data suggest that nearly one-third of the American population has persistent or recurrent *chronic* pain. Over 50 million individuals are either partially or totally disabled for periods of days, weeks, or months, and some permanently. In most patients with back disorders, arthritis, headache, cancer, and some other chronic painful conditions, it is frequently not the underlying pathology but the pain that primarily impairs the patient's life. On the basis of this data, it is estimated that as a result of chronic pain, well over 700 million workdays are lost which, together with health care costs and payments for compensation, litigation, and quackery, total nearly \$60 billion annually.

From a medical perspective, chronic pain may be viewed as an entity distinct from acute pain. While the latter is often a symptom of underlying pathology or tissue injury, the former frequently no longer has any diagnostic or survival value. Concomitant features of affective (depression, anxiety, etc.), vegetative (sleep disturbance, loss of libido, etc.), and behavioral impairment (prolonged 'downtime,' drug-seeking, etc.) accompany patients with chronic pain. Treatment approaches that may be effective or "orthodox" for patients with acute pain may often be inappropriate or even counterproductive for patients with chronic pain and can lead to iatrogenic complications including drug toxicity, drug addiction, multiple and often unnecessary or sometimes mutilating surgeries. A significant number of these patients give up medical care and consult quacks. Some become so discouraged and so desperate as to contemplate or even commit suicide.

From this brief description, it is clear that chronic pain is a serious national health problem with important social, psychological and physical dimensions. The conference proposed by Dr. Ng will attempt to address some of these issues both from the professional and the lay perspective.



Max Habicht, Counselor for WAAS, and Sydney D. Bailey, recipient of the WAAS Rufus Jones Award.

WAAS Awards— 1984

Sydney D. Bailey

Sydney D. Bailey was the recipient of the third Rufus Jones Award for contributions to peace and international understanding. The award was presented by Max Habicht on June 12th in Geneva, Switzerland at a ceremony arranged by the UN Institute for Training and Research and the Graduate Institute of International Studies of the University of Geneva, in conjunction with the World Academy of Art and Science. After receiving the award, Sydney Bailey gave a meaningful and challenging lecture, "Non-official Mediation: Reflections on Quaker Experience," which will be published in *International Affairs* the quarterly journal of the Royal Institute of International Affairs, next April. Copies will be available. Write to Sydney D. Bailey, 19 Deansway, East Finchley, London, N2 0NG.

Sydney D. Bailey also received a "warm commendation" from the judge in the award ceremony, last month in London, of the UNA Media Peace Prize for 1983. He was described as "a leading commentator on peace issues over many years, in the 'Looking Abroad' column of the Quaker magazine *THE FRIEND*, and elsewhere, probably the best informed authority on the United Nations in the United Kingdom."

Dr. Frederick Sai

Frederick Sai was the recipient of the Third Clarence James Gamble Award, which is in memory of Clarence James Gamble founder of the Pathfinder Fund: on June 11 in Arlington, Va. at the conclusion of the first day of the Annual Meeting of the National Council for International Health.

Eliot Putnam of the Pathfinder Fund introduced Dr. Sai and presented the award. After receiving the award Dr. Sai delivered a lecture on "Some issues in Family Planning." A copy of his paper is available by writing to Dr. Frederick Sai, Carnegie Corporation of New York, 437 Madison Avenue, New York, NY 10022.



Dr. Frederick Sai, Lorenz K.Y. Ng, M.D. President of WAAS America Division and Richard Gamble former Chairman of the Pathfinder Fund.

Dr. Sai was one of the founders of the Family Planning Association in Ghana and helped produce the national population policy. As one of the pioneers of IPPF in Africa, he helped create the Africa Regional Council. He is Chairman of the Committee which redrafted the recommendations which came before the Preparatory Committee for the International Conference on Population.

New Fellows Elected

Dr. John H. Evans, Chairman & Chief Executive Officer, Allelix, Inc., 6950 Goreway Drive, Mississauga, Ontario L4V 1P1, Canada. Professor Florence M. Hetzler, Chateau Rochambeau, Apt. 6L, Scarsdale, NY 10583, USA. Mrs. Edna Hibel, 150 Royal Poinciana Plaza, Palm Beach, Florida 33480 USA. Burke K. Zimmerman, Ph.D., 6413 Hillegass Avenue, Oakland, CA 94618 USA. The Lord L. Malloy (Baron William John Malloy), 2a Uneeda Drive, Greenford, Mddx, England. Dr. Charles Weiss, Jr., World Bank, Room D1014, 1818 H Street, N.W., Washington, DC 20433, USA. Joshua Lederberg, President, Rockefeller University, New York, NY, USA.

WAAS Philosophy

Today, the idea of a world academy is indeed timely. The expansion of science and technology has put at our disposal an unparalleled instrument for fulfillment or destruction; if man is to take the future evolution of body, mind, and civilization into his own hands, it is imperative that we find more effective ways of integrating what we know with what we do.



Oceanography Commercial Mining

Dr. Elizabeth Mann Borgese

I cannot think of any other period in history where a revolution in the sciences and a revolution in international relations kept pace, intertwined as closely as in our time; so much so that political leaders have to become scientists to make intelligent political decisions, and scientists must assume political responsibilities for the consequences of their science, as never before.

Developments in oceanography, over the past twenty years, have done more than deepening our understanding of the oceans. They have changed our perception of the planet and its continuous evolution and transformation.

Plate tectonics, the discovery of sea-floor spreading and continental drift, tested and proved by sophisticated technologies generated as by-products of World War II, have revealed a wealth of minerals and metals welling up from the earth's mantle through rifts and volcanic openings and, in some cases, forming sizable deposits within the span of a decade. And such deposits, as Bosko Lonkarevic of the Bedford Oceanographic Institution put it, "might occur anywhere along the 70,000 km long chain of mid-ocean mountains. If this is the case, the amount of metals available to the miners of the future is truly staggering, simply beyond comprehension. Even speculation about the exploitation of this resource would sound like science fiction today." ("Prospects for Deepsea Mining," address to the First Canadian Science Writers Workshop, 12-15 January, 1972.)

In spite of the (temporary) absence of the United States, the situation is now very concrete and well defined. Four Pioneer investors (India, the Soviet Union, Japan,

and France) have already filed their application to register their claims to a site each for exploration. Four well prospected sites will accrue to the Commission which will have to explore at least one of them, if not two, for the enterprise. Never in the past did the international community have such a perfect forum for international, North-South, cooperation in a scientific, high-tech, industrial venture. The early internationalization of deepsea exploration and exploitation technology would be an enormous contribution, not only to development, but, as the only alternative to its militarization, also to peace.

Only a portion of this interesting paper could be published. Write to Dr. Elizabeth Mann Borgese, Dalhousie University, Halifax B3H, 4H9, Nova Scotia, Canada, for the complete text.

A feasibility study on a Biological Resource Development Corporation

Carl-Göran Hedén

Plans for a joint project with the International Federation of Institutes for Advanced Study (IFIAS), the World Confederation of Productivity Science (WCPS), the Club of Rome and the World Academy of Art and Science (WAAS).

1. General Background

As illustrated by the resolutions and recommendations from many international meetings in recent years, as well as by the response to a recent poll of the WAAS membership, there are a growing number of professionals who are deeply concerned about the long-term consequences of many widening social gaps — economic, racial and religious. Scenarios of confrontations in which uncontrollable escalations lead to a global catastrophe are now easily visualized, and the "debt crisis" serves as a powerful reminder that aid to development is no longer only a matter of altruism and compassion, but rather a question of survival for industrial nations and developing countries alike.

Noting that "Big Government," "Big Labor" and "Big Business" are part of the problem (militarization, inflation, unemployment, environmental stresses, etc.), many young people are starting to doubt that such organizations can possibly provide a solution. This often leads to either a passive, pessimistic attitude or to a fixation on some rigid ideology or religion which increases rather than diminishes the polar-

izations in society. Either is an intellectual waste.

There is a reaction, however, which characterizes some non-governmental organizations (NGO's) such as the Club of Rome, the International Federation of Institutes for Advanced Study (IFIAS), the World Academy of Art and Science (WAAS) and the World Confederation of Productivity Science (WCPS). These organizations favor attacking the problem with an experimental approach in which social innovations, based on some reasonable hypothesis, are tried and evaluated. To pave the way for the impact of a possible recommendation to establish a Biological Resource Development Corporation, discussions led to the decision that C.-G. Hedén would be the project leader and member of a steering committee that would include the executive director of IFIAS, S. Nilsson, and the president of WCPS, M. Tveit. A prominent genetic engineer and WAAS fellow, Prof. B. Zimmerman, who has shown great interest, will be in charge of the American node.

All IFIAS projects must involve a couple of member institutes from the start. Since two member institutes (the Science Policy Research Institute at Sussex University and the Research Policy Institute at Lund University) expressed interest, a search for funding was initiated. This led to a commitment of USD \$50,000.- per year (for a maximum of three years) from the Sven and Dagmar Salén Foundation in Sweden, provided that matching funds could be found abroad. Since contacts with the Rockefeller Brothers Fund have indicated a fair chance of this, the project was put up for approval by the Board of IFIAS that was regarded as the organization with the best management resources. Since the response has been very positive, with some 20 prominent experts offering their services as permanent "correspondents," the project is now poised for a flying start on January 1st, 1985.

If you have received honors, or if you could write an interesting article about your work, similar in length to the articles by Professor Dror and Drs. Borgese and Ng, send copy and your photograph to WAAS NEWS EDITOR, 734 Millbrook Lane, Haverford, Pa. 19041, by March 31, 1985 for publication in the May issue of WAAS NEWS.