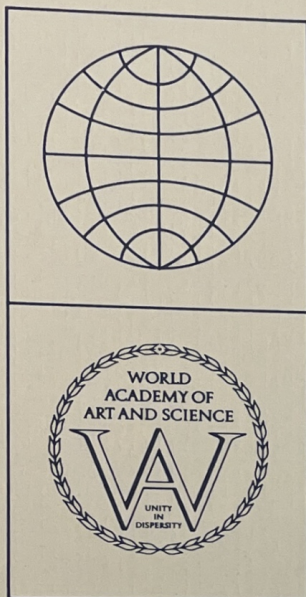


# The World Academy of Art and Science



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## Introduction

The World Academy of Art and Science was established in 1960 as a non-official network of not more than 500 individual Fellows from diverse cultures, nationalities, and intellectual disciplines, "chosen for eminence in art, the natural and social sciences, and the humanities." Its activities focus on "the social consequences and policy implications of knowledge."

The spirit of the Academy can be expressed in the words of Albert Einstein: "The creations of our mind shall be a blessing and not a curse to mankind." Its Fellows share the ambition (as its founders said in their 1960 Manifesto) "to rediscover the language of mutual understanding," surmounting differences in tradition, language, and social structure which, unless fused by creative imagination and continuous effort, dissolve the latent human commonwealth in contention and conflict.

To this end the Academy serves as a forum for reflective scientists, artists, and scholars to discuss the vital problems of humankind, independent of political boundaries or limits, whether spiritual or physical — a forum where these problems can be discussed objectively, scientifically, globally, and free from vested interests or regional attachments.

"The World Academy of Art and Science," said the 1960 Manifesto, "will function as an informal 'world university' at the highest scientific and ethical level, in which deep human understanding and the fullest sense of responsibility will meet."

Scientific discovery and technological innovation keep developing instruments of unparalleled power for fulfillment or destruction. We humans, more and more, are taking into our own hands the future evolution of our bodies, our minds, the civilizations we create, and the very planet we inhabit. So it is imperative that we guide what we do by what we know, and guide what we know by what we value.



## Status and History

The World Academy of Art and Science was founded in 1960 in response to an appeal from an International Conference on Science and Human Welfare. The Academy is incorporated in Switzerland, under Article 60 of the Swiss Civil Code.

The Academy has never been an organization with a headquarters building or central staff. It operates as a flexible network of colleagues. Its administrative functions are handled wherever its changing executive officers reside. For some functions, electronic mail and teleconferencing have recently proved effective and useful.

Two regional Divisions have been created so far: A European Division, operated for several years from Stockholm and more recently from Rome; and an America Division, formerly operated from New York and now from Washington. The Academy's executive officers, as of January 1, 1992, are listed on back cover of this brochure.

The American Division is a tax-exempt "private operating foundation," in accordance with the terms of IRS Section 4942 (j) (3). Confirmation of this status by the U.S. Internal Revenue Service is available from the Treasurer. Unlike most non-profit organizations, the World Academy does not assess dues from its Fellows. Its activities are supported by grants, contributions, bequests, and legacies; those made to the American Division are tax-deductible under U.S. law.

The founding President of the World Academy, elected in 1960, was Lord John Boyd Orr (UK), Nobel Laureate and first Director General of the U.N. Food and Agriculture Organization. The first Vice Presidents were Hermann Joseph Muller (Germany), Nobel Laureate, and Hugo Osvald, Vice President of the Swedish Parliament. The first Secretary General was Hugo Boyko, ecological adviser to the National Research Council of Israel, who was later elected President.

After Dr. Boyko's death in 1971, Dr. Stuart Mudd (USA), President of the International Association of Microbiological Societies, served as President. He was succeeded by Dr. Detlev Bronk, first President of Rockefeller University and Science Adviser to the President of the United States. He was followed in 1974 by Dr. Harold Lasswell (USA), the Ford Foundation Professor of Law and Social Sciences at Yale University. Dr. Walter Isard (USA), Professor and Chairman of the Department of Political Science at the University of Pennsylvania, was elected President in 1978 and served until 1982.

Dr. Roger Porter (USA), Professor and Chairman of the Department of Microbiology at the University of Iowa's School of Medicine, was elected President in 1982 but died before he was able to serve. Dr. Carl-Göran Hedén (Sweden), Professor and Chairman, Biotechnology Group at the Karolinska Institute in Stockholm and concurrently head of the UNESCO Microbiological Research Center, served as acting President from 1982 until the election in 1983 of Professor R. St. John MacDonald (Canada), Professor of Law and Dean, Dalhousie University, and Judge of the European Court of Human Rights.

In 1986, Dr. Hedén was elected to a full term as President and served until the end of 1990. He was succeeded on 1 January 1991, to serve until 1995, by Professor Harlan Cleveland (USA), a political scientist who had served as a U.S. ambassador and university president, and had just retired as founding dean of the University of Minnesota's Hubert H. Humphrey Institute of Public Affairs.

Dr. John McHale, a British artist and sociologist resident in the United States, was Secretary General of the World Academy from 1971 until his untimely death in 1978. He was followed by Dr. Gerald Karaska. Dr. John H. Proctor was elected Secretary General in 1987.

The first President of the American Division was elected in 1973. He was Dr. Boris Pregel, followed by Dr. Serge Korff in 1976. Dr. Lorenz

K.Y. Ng was elected in 1983 and re-elected in 1987. The European Division's first President was Dr. F.W.G. Baker (France), who served until the election of Dr. Carl-Göran Hedén (Sweden) in 1983; he, in turn, was succeeded by Dr. Sam Nilsson (Sweden) in 1986. Professor Eleanora Masini (Italy) was elected President of the European Division in 1991.

## Conferences

After the first conference in 1961 at the Royal Academy of Sciences in Brussels, all World Academy conferences have been organized in connection with scientific symposia and co-sponsored with other bodies. Papers presented at these conferences have often formed the basis for World Academy publications.

The second conference was held in Stockholm in 1963, a symposium of **"Global Impacts of Applied Microbiology,"** organized with the International Association of Microbiological Societies and presided over by Fellow Arne Tiselius, Nobel Laureate and President of the Nobel Foundation. This conference was held at the Royal Swedish Academy of Engineering during the opening session of the House of Parliament.

The 1965 conference, held in Rome, was connected with two symposia: One, on **"Conflict Resolution and World Education,"** was chaired by two World Academy Fellows, Sir George E. Catlin, a distinguished British innovator in political science, and Rector Gaetano Martino of the University of Rome. The other scientific symposium, "On Irrigation with Saline or Seawater, with and without Desalination," was chaired by Senator G. Medici, then Minister of Commerce and Industry in Italy. This conference was held at the National Research Council with cooperation also of the Academy of Agricultural Sciences of Italy and was co-sponsored by UNESCO.

New York City was the venue for the fourth World Academy Conference in 1970. It was

organized by the American Division in collaboration with the American Geographical Society. The topic was **"Environment and Society in Transition: Scientific Developments, Social Consequences, Policy Implications."** Dr. Boris Pregel, then President of the American Division, presided.

The fifth conference, in 1974, was also held in New York under the same auspices, expanding on the theme **"Environment and Society in Transition: World Priorities."**

Between 1974 and 1980, several regional conferences with international participation were held in the United States, Japan, Austria, Germany, and Poland. Several, on **"peace science,"** were organized by Dr. Walter Isard while he was President of the World Academy.

The sixth conference, held at Houston, Texas, in 1978, dealt with **"Bioresources for Development."** It was organized for the World Academy jointly by the Center for Integrative Studies (then at the University of Houston), the International Federation of Institutes for Advanced Studies, the Aspen Institute for Humanistic Studies, the Bio Energy Council, and the University of Houston's Energy Laboratory. It was developed by John McHale, Magda Cordell McHale, and Roger Porter, and was co-chaired by Alexander King and Harlan Cleveland.

The seventh conference was an international congress running for three weeks in June 1980, in Cambridge, Massachusetts. Organized by Walter Isard and the World Academy's "World University" project, this extended symposium covered sixteen major topics of discussion.

The eighth conference, on **"Art, Science and Technology in the 20th Century,"** was held in Paris in February of 1985. It was co-sponsored by the European Academy of Art, Science and Humanities, the Calouste Gulbenkian Foundation, the International Association of Art Centers, the International Council of Scientific Unions, and the Paris Art Center. The chairman was Fellow Augusto Forti of Italy.



The ninth conference, organized by the European Division, was held in May 1987. Timed for the tercentenary of Isaac Newton's landmark book, "Mathematical Principles of Natural Philosophy," it was a wide-ranging symposium on **"New Paradigms — The World 300 Years After Newton."** This international meeting was co-sponsored by the Calouste Gulbenkian Foundation, and held at its headquarters in Lisbon, Portugal. The other co-sponsor was the Sven and Dagmar Salen Foundation in Sweden.

After the Lisbon conference, a special workshop was held to explore how biotechnology and its life-altering capacities might affect the international system. There followed a year-long computer teleconference with President Carl-Göran Hedén as moderator, and another workshop in Hong Kong the following year, co-sponsored by the World Academy and the "Rethinking International Governance" project managed by the University of Minnesota's Humphrey Institute. This rethinking led the World Academy to establish The Biofocus Foundation, designed to draw more biotechnological talent into enterprises of benefit to developing countries. The Foundation's first board meeting was held in Montreal in September 1991.

## Publications

The important publications of the World Academy and the American Division have grown mainly out of the conferences as enumerated. The first group (1961-1970) was published by Dr. W. Junk, Publishers, The Hague, The Netherlands. American reprint editions and the paperback edition of *The Population Crisis* were published by Indiana University Press, Bloomington, Indiana, U.S.A.

### **Science and the Future of Mankind.** Ed.

Hugo Boyko. Dr. W. Junk, Publishers — The Hague, 1961, Second Edition 1964.

### **The Population Crisis and the Use of World Resources.** Ed. Stuart Mudd with

assistance of Hugo Boyko, Robt. C. Cook, Larry Ng, and W. Taylor Thom, Jr. Dr. W. Junk, Publishers — The Hague, 1964; in 1966 by Indiana University Press (Third Printing).

### **The Population Crisis, Implications and Plans for Action.** Paperback edition,

edited by Larry K. Y. Ng and Stuart Mudd. Associate editors; Hugo Boyko, Robert C. Cook, Frank J. Ditter, James E. McLennan and W. Taylor Thom, Jr. Indiana University Press, 1965, Fourth Printing 1970.

### **Conflict Resolution and World Education.** Ed. Stuart Mudd. Dr. W. Junk,

Publishers — The Hague, 1964; in 1967 by Indiana University Press.

### **Saline Irrigation for Agriculture and Forestry.** Ed. Hugo Boyko. Dr. W. Junk

Publishers — The Hague, 1968.

### **Towards World Community.** Ed. John

Nef. Dr. W. Junk, Publishers — The Hague, 1970.

### **The World Religions Speak.** Ed. Finley P.

Dunne, Jr. Dr. W. Junk, Publishers — The Hague, 1970.

### **Environment and Society in Transition.**

Ed. Peter Albertson and Margery Barnett. In *Annals of New York Academy of Sciences*, Vol. 184, Published by New York Academy of Sciences, June 7, 1971.



**Public Policy Towards Environment  
1973: A Review and Appraisal.**

Published by the New York Academy of  
Sciences, Vol. 216, 1973.

**Environment and Society in Transition:  
World Priorities.\***

Eds. Boris Pregel, Harold  
D. Lasswell and John McHale. In *Annals of  
New York Academy of Sciences*, Vol. 261.

Published by New York Academy of  
Sciences, September 30, 1975.

\*An edited version of *Environment and  
Society* was published as *Managing the  
Planet* by Prentice-Hall, Inc., 1972. A French  
edition was published under the title  
*Maitriser le Futur*, Editions Albin Michel,  
1973.

**World Priorities.**

Eds. Boris Pregel, Harold D.  
Lasswell and John McHale. Published by  
Transaction Books, New Brunswick, N.J. 1977.

**Bioresources for Development: The  
Renewable Way of Life.**

Eds. Alexander  
Kings and Harlan Cleveland, assisted by  
Guy Streatfield. Published by Pergamon  
Press, Elmsford, New York, 1980.

**Management of Pain and Stress: Past,  
Present, and Future.**

Eds. Lorenz K. Y. Ng  
and John H. Proctor. Published for the  
American Division of the World Academy  
of Art and Science by B-K Dynamics, Inc.,  
Rockville, Maryland, 1986.

**Special and Structural Consequences  
of Social and Technological  
Development in Eastern and Western  
Europe.**

By Ryszard Domanski and Leo  
Klaasen. A report on a multi-year study of  
stress and urban environments sponsored  
by the World Academy. Published by the  
World Academy of Art and Science, 1990.

**New Paradigms. The World 300 Years  
After Newton.**

Ed. Sam Nilsson. Published  
by the World Academy of Arts and Science,  
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**Awards**

To reflect its distinctive interest in the social  
consequences and policy implications of  
knowledge, the World Academy began a  
program of awards with modest honoraria  
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fields have been judged by international juries  
composed of World Academy Fellows and  
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program was chaired by Professor Emily  
Hartshorne Mudd, Department of Psychiatry,  
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The first such award was made, in  
collaboration with the New York Academy of  
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his contributions in the field of energy.

Four awards for THE SOCIAL IMPLICATION  
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been given in honor of Dr. Stuart Mudd in  
conjunction with the International Congress of  
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**Dr. John Roger Porter**

at the XIIth International Congress of  
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**Dr. Leonardo Mata**

at the XIIIth International Congress of  
Microbiology, Boston, Massachusetts, 8/13/82.

**Dr. Frank Fenner**

at the XIVth International Congress of  
Microbiology, Manchester, England, 9/13/86.

**Dr. Carlton Gajdusek**

at the XVth International Congress of  
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Three awards have been given for  
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**Dr. Spurgeon Milton Keeny**

at the Annual Meeting of Planned Parenthood  
Federation of America, Houston, Texas,  
11/6/79.



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**Dr. Sheldon J. Segal**

at the International Congress of Arts and Sciences, Harvard Law School, Cambridge, Massachusetts, 6/16/80.

**Dr. Frederick T. Sai**

at the National Council of International Health, Washington, D.C., 6/11/84.

Four awards for CONTRIBUTIONS TO PEACE AND INTERNATIONAL UNDERSTANDING have been given in honor of Professor Rufus Jones, Professor of Philosophy, Haverford College, Pennsylvania, U.S.A.:

**Dr. Kenneth E. Boulding**

at the International Institute for Comparative Social Studies, Berlin, Germany, 9/2/79.

**Professor Kinhide Mushakoji**

at a meeting of the United Nations University and The Hague Academy of International Law at the Peace Palace, The Hague, Netherlands, 10/29/81.

**Mr. Sydney D. Bailey**

at the Graduate Institute of International Studies of the University of Geneva, Geneva, Switzerland, 6/12/84.

**Professor Paul Reuter**

at the Palais de Nations at Geneva, Switzerland, 7/1/86.

One award for COMMUNICATION IN A DIVIDED WORLD has been given in honor of Professor Harold Dwight Lasswell:

**Professor W. Michael Reisman**

at the American Society of International Law 75th Anniversary Meeting, Washington, D.C., 4/24/81.

In 1987, Dr. Horatio P.R.C. Menano of Portugal, Executive Director of the Gulbenkian Institute of Science, was elected Chairman of the Awards Committee. Emily H. Mudd, Professor Emeritus, School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, U.S.A., was elected Assistant Chairman by the Executive Committee in Washington, D.C., December, 1991. Two continuing award programs have so far been approved.

The World Academy's first endowed award was that honoring Dr. Stuart Mudd, a former President. It is a continuing cooperative arrangement with the International Congress of Microbiology. This award is now presented every fourth year at an International Congress of Microbiology. The last awardee, as reported above, was Carleton Gajdusek in 1990.

A new award, for outstanding contributions in the field of Population and Family Planning, has been established in honor of Fellows Dr. Sheldon Segal and Dr. Luigi Mastroianni. It is to be given every three years in collaboration with the International Federation of Fertility and Sterility Societies. The first of these awards is scheduled to be made at the Federation's meeting in Caracas, Venezuela, November 22-23, 1992.

## The Future of the World Academy

The World Academy's conferences, publications, and awards during its first thirty years cover a wide variety of topics, issues, and geography. But they reflect a spirit of inclusive inquiry — transcultural, transdisciplinary, transnational. And they cluster around themes that are common and enduring.

One common theme is a full recognition of our world's marvelous diversity, our interlocking rainbows of culture and ideology, our individual traits and collective histories.

But the world's diversity of peoples and ideas has always been an explosive mix. It requires a continuous effort to weave its multiple strands into ways of thinking that make possible constructive and cooperative action by those who are *not* "likeminded."

Some World Academy activities are already in train for the 1990s:

A continuing interest in the potentials of biotechnology for "doing something about poverty" in developing countries — expressed through The Biofocus Foundation established in 1991 by a group of Fellows.

An effort to see how the differing perspectives of art and science can be expressed in transnational exhibits and artistic performances.

Television programs designed for intergenerational communication, such as the two videotapes by Agneta Ginsburg, produced in the first instance for Swedish television, of Nobel Laureate Linus Pauling being interviewed by his grandson.

A video-conference, "Technology Push, Cultural Pull, and Human Values," with a panel of Russian Fellows and a panel of U.S. Fellows discussing global issues before live audiences simultaneously broadcast on both continents.

A workshop in Vinci, Italy, to explore the relationship between art and science, with Leonardo as the ideal metaphor for their integration.

The presentation of the new award for contributions in the field of population and family planning will be made in Venezuela in 1992, France in 1995 and the U.S.A. in 1998.

The World Academy's future program will be deeply affected by the rapid changes in world politics. The end of the Cold War opens opportunities for closer collaboration with more Fellows in more countries.

However, it also leaves more room for remembered cultural quarrels and newly discovered cultural animosities, setting up confrontations between group ambitions and the human rights of individuals. Meanwhile, science and technology continue to make possible more inclusive, even global, concepts and systems — an outward "push" in chronic tension with the cultural "pull" of narrower loyalties.

This tide-rip of colliding ideas and potentials will be explored in workshops, lectures, and the next plenary conference of the World Academy of Art and Science.

Changing circumstances and programs will require the infusion of new people and perspectives. The World Academy, like any

lively organization, must continuously provide for its own self-renewal. New Fellows are nominated and seconded by Fellows, and after review are appointed by the Executive Committee chaired by the President. During the next few years, a special effort will be made to include more Fellows from Asia and the Pacific, from Africa, and from Latin America.

## OFFICERS

### PRESIDENT

Professor Harlan Cleveland

### HON. VICE PRESIDENTS

Professor Carl-Göran Hedén

Professor Emily H. Mudd

### VICE PRESIDENTS

Dr. Lorenz K. Ng, President

#### AMERICAN DIVISION

Professor Eleonora Masini, President

#### EUROPEAN DIVISION

### SECRETARY GENERAL

Dr. John H. Proctor

### TREASURER

Richard W. Palmer, Esq.

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Mr. Frederick H. Gloeckner

Professor Carl-Göran Hedén

Professor Eleonora Masini

Professor Magda Cordell McHale

Dr. Horatio P.R.C. Menano

Dr. Emily H. Mudd

Dr. Lorenz K. Ng

Dr. Sam Nilsson

Richard W. Palmer, Esq.

Dr. John H. Proctor

Professor W. Michael Reisman

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