

---

*Absolute Values and the  
Unity of the Sciences:  
The Origin and Human Responsibility*



*Twentieth International Conference  
on the  
Unity of the Sciences*

---

## Welcome

---

Ever since its founding in New York in 1972, ICUS has remained committed to the quest for *Absolute Values* and the Unity of the Sciences. But every ICUS has also had its own overriding theme. When the 19th ICUS assembled here in Seoul in 1972, the conference theme was *Absolute Values and the New World Order*. Chosen a year earlier in a confident mood of optimism, it seemed like an obvious choice. But as I noted in the conference program's Welcoming Remarks the theme "seems to have acquired an ironic ring... Would not disorder be more appropriate?"

Three years have passed since then. Three bad years, not withstanding that there has been considerable progress in some quarters, notably in South Africa where the peaceful democratic transition from the racist Apartheid regime to a lively representative government deserves our greatest admiration. In general for humanity, it has been a disgraceful period.

In Europe more people have died in warfare during these last three years than in the entire preceding period since the end of the Second World War. In the former Yugoslavia the United Nations peacekeeping operations have been shamelessly and, alas, successfully challenged. We have been forced to witness brutal warfare in the former Soviet Union and staggering atrocities in African Rwanda. We have been exposed to senseless mass-murdering of innocent people all over the world, from the Tokyo subway gassing to the blasting of a federal government high-rise building in Oklahoma City.

What seems particularly disturbing is the steady increase in the number of religious conflicts. In December 1992 there were a total of twenty-four wars with a religious background. In the entire period from 1949 to 1969 there were only three. What went wrong? Perhaps not enough attention has been paid to the first part of our theme: *Absolute Values* and to their religious underpinning.

Western scientists tend to conceive of religious belief as something entirely personal like being a vegetarian. Maybe it is about time that we take the social and political aspects of religion seriously. Maybe Michael Novak was right when he recently wrote: "remove these religious foundations from our intellects, our lives, and the free society—in its complex (of) checks and balances, and its highly articulated division of power—becomes incoherent to understanding and unworkable in practice." It is against this background

we meet to understand the special theme of this 20th ICUS: *The Origin and Human Responsibility*. It was chosen by the Founder himself.

In our seven committees we will search for unifying principles, *Absolute Values* if you like, in the sciences and the humanities. But let us also ponder the origin of the order that so beautifully manifests itself everywhere in nature and which in a seemingly spontaneous fashion emerges in the operations of a free society. Let us ask ourselves if we don't, as scientists and scholars, have a special human responsibility for the maintenance of order in our natural environment as well as in our social and spiritual lives. Expressed in a secular language this is, I believe, what our Founder has kept telling us over and over again during the last 23 years.

For ICUS itself it has been a sad period. We have lost two of our best friends and cherished leaders: Eugene Wigner and Kenneth Mellanby. Tributes to their memories are paid elsewhere in the program. But since both served ICUS as Conference Chairmen let me, as their humble successor, express my admiration and gratitude to these great leaders. It is people like Wigner and Mellanby with their extraordinary qualities, that makes it still possible to nourish hope for the future of mankind.

It is a pleasure for me to welcome the participants to this conference to Seoul. I am confident that it will be a success thanks to your hard work in preparing your papers and comments. I am also grateful for the excellent preparations made by the ICUS staff. Without their unfailing efforts this conference would not have been possible.

Last but not least our thanks must go to our Founder and generous sponsor, Reverend Sun Myung Moon, and to his native country Korea. We must never forget that the word *unity* has a very special meaning for all Koreans. We pray that their greatest dream of all will soon come true.



Tor Ragnar Gerholm  
Conference Chair  
ICUS XX (1995)

**Twentieth International Conference on the Unity of the Sciences**  
**August 21-25, 1995 • Sheraton Walker Hill Hotel, Seoul, Korea**

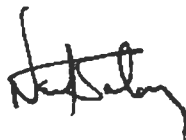
## Table of Contents

**T**his conference, our twentieth, marks a milestone for the ICUS endeavor. Since the first ICUS in 1972, an international network of scholars has been established, books and journals have been published, theories have been presented and challenged, and the academic community has come to take a more integrated and value-oriented approach to problem-solving, catalyzed to some extent because of ICUS.

For the twentieth ICUS we come to the homeland of its Founders, the Reverend and Mrs. Moon, whose unwavering support of this academic enterprise over the years is unrivaled. While Korea wrestles with political change, especially in the North, and its effect on unification, we have a timely opportunity to learn more about Korean culture and establish bonds with the Korean people. I hope you have a chance during your busy conference schedule to do both.

During the conference you will have opportunities to learn about ICUS-related projects, such as the Professors World Peace Academy, Paragon House Publishers, the *World & I* and the International Highway Project. We have allotted time for you to hear a briefing on the University of Bridgeport and its affiliated World University Network and also about the Korea-Japan Tunnel.

Our staff wishes to make your stay as pleasant as possible. The Conference Headquarters is located in the Acacia Room on the second floor. Your comments and suggestions for improving the conference, as always, are welcome.



Neil Salonen  
President  
International Cultural Foundation

<b>Twentieth ICUS Executive Board</b>	<b>2</b>
<b>Agenda</b>	<b>4</b>
<b>Committee 1</b>	<b>6</b>
<b>Committee 2</b>	<b>10</b>
<b>Committee 3</b>	<b>13</b>
<b>Committee 4</b>	<b>17</b>
<b>Committee 5</b>	<b>21</b>
<b>Committee 6</b>	<b>24</b>
<b>Committee 7</b>	<b>27</b>
<b>Statement of Purpose</b>	<b>30</b>
<b>A Short History of ICUS</b>	<b>32</b>
<b>Founder's Page</b>	<b>34</b>
<b>International Cultural Foundation</b>	<b>35</b>
<b>ICUS Planning Board</b>	<b>36</b>
<b>Journal on the Unity of the Sciences</b>	<b>37</b>
<b>In Memoria</b>	<b>38</b>
<b>Related Activities</b>	<b>40</b>
<b>Conference Staff</b>	<b>45</b>
<b>ICF Representatives</b>	<b>46</b>
<b>ICUS Publications</b>	<b>48</b>
<b>Floor Plans of Hotel</b>	<b>57</b>



### The Symbol of ICUS

The Symbol of ICUS employs at its center the symbol of ICF, which portrays the give and take relationship and interdependence among all phenomena, symbolized by two circular arrows. The forms of a man and a woman, also symbolizing the unity of "Heaven and Earth" or the spiritual and material cultures, revolve around a common center, or standard of value. The extended arms represent the tips of writing pens since writing is the medium of cultural expression and interaction.

## Twentieth ICUS Executive Board

---



**Conference Chair**  
**Tor Ragnar Gerholm**  
Professor of Physics Emeritus  
University of Stockholm  
Stockholm, SWEDEN



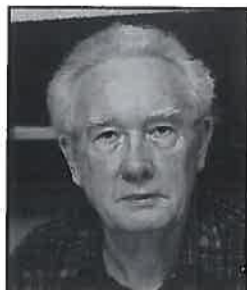
**Conference Vice Chair**  
**Se Won Yoon**  
President  
Sun Moon University  
Chung-nam, KOREA



**Plenary Speaker**  
**Eugene Velihov**  
Vice-President  
Russian Academy of Sciences  
Moscow, RUSSIA  
*Science and Values*



**Plenary Speaker**  
**Marcelo Alonso**  
Principal Research  
Scientist (Retired)  
Florida Institute of  
Technology  
Melbourne, Florida USA  
*The Challenges of the  
Information Society*



**Plenary Speaker**  
**D.H.R. Barton**  
Nobel Laureate  
Professor of Chemistry  
Texas A&M University  
College Station, Texas USA  
*The Unity of Man and Science*



**Plenary Speaker**  
**Hikoji Takahashi**  
Chairman  
Technical Committee  
Japan-Korea Tunnel Research  
Institute  
The International Highway  
Construction Corporation  
Tokyo, JAPAN  
*International Highway Project*

# Twentieth ICUS Executive Board

---

## COMMITTEE 1

### Scientific Objectivity and Human Values

**Ninian Smart**

Honorary Chair

J.F. Rowny Professor of Comparative Religions

University of California

Santa Barbara, California USA

**Paul Badham**

Organizing Chair

Dean, Faculty of Theology and Department Head

University of Wales

Lampeter, Dyfed, UNITED KINGDOM

---

## COMMITTEE 2

### Genetic Knowledge, Human Values and Human Responsibility

**Jacquelyn Ann Kegley**

Organizing Chair

Outstanding Professor of Philosophy

California State University

Bakersfield, California USA

## COMMITTEE 3

### Values and the Social Order: Order by Rules and Rules by Order

**Gerard Radnitzky**

Organizing Chair

Professor of Philosophy of Science, Emeritus

University of Trier

Trier, GERMANY

---

## COMMITTEE 4

### Science, Nature and the Sacred

**Ravi Ravindra**

Organizing Chair

Professor of Physics and of Comparative Religions

Dalhousie University

Halifax, Nova Scotia, CANADA

**Priscilla Murray**

Associate Chair

Faculty of Education

St. Mary's University

Halifax, Nova Scotia, CANADA

---

## COMMITTEE 5

### Re-visioning the Aging Society: A Global Perspective

**Harry R. Moody**

Organizing Chair

Executive Director, Brookdale Center for Aging

Hunter College

New York, New York USA

## COMMITTEE 6

### In Pursuit of Beauty: Biological Foundations of Aesthetics

**Frederick Turner**

Organizing Chair

Founders Professor of Arts and Humanities

University of Texas at Dallas

Richardson, Texas USA

---

## COMMITTEE 7

### Towards the Harmony of Cultures

**Sang Hun Lee**

Honorary Chair

President

Unification Thought Institute

Seoul, KOREA

**Frederick Sontag**

Organizing Chair

Professor of Philosophy

Pomona College

Claremont, California USA

---

# Agenda



## Twentieth International Conference on the Unity of the Sciences

### Monday, August 21

8:00 A.M. **Registration Opens**  
Lobby Foyer

7:00 P.M. **Welcoming Reception**  
Sunflower Room

### Tuesday, August 22

7:00 A.M. **Breakfast**  
Sunflower Room

~~9:00~~ A.M. **Opening Plenary Session**  
*9:30* **ICUS and PWPA**  
Founder's Address  
ICUS Chairman's Welcome  
PWPA Chairman's Welcome  
Ballroom 1 and 2

10:00 A.M. **Refreshment Break**  
Sunflower Foyer

10:30 A.M. **Plenary Address**  
*Science and Values*  
Eugene Velihov  
Vice President  
Russian Academy of Sciences  
Moscow, RUSSIA  
Ballroom 1

12:30 P.M. **Luncheon**

2:00 P.M. **Committee Session I**  
Ballroom 3, Ballroom 4, Rose,  
Azalea, Lilac, Dahlia, Daffodil

4:00 P.M. **Refreshment Break**  
Sunflower Foyer

4:30 P.M. **Committee Session II**  
Ballroom 3, Ballroom 4, Rose,  
Azalea, Lilac, Dahlia, Daffodil

6:30 P.M. **Dinner**

8:00 P.M. **Special Presentation**  
University of Bridgeport  
President Richard L. Rubenstein  
Ballroom 2

### Wednesday, August 23

7:00 A.M. **Breakfast**  
Sunflower Room

8:30 A.M. **Committee Session III-A**  
Ballroom 3, Ballroom 4, Rose,  
Azalea

10:30 A.M. **Refreshment Break**  
Sunflower Foyer

11:00 A.M. **Committee Session IV-A**  
Ballroom 3, Ballroom 4, Rose,  
Azalea

1:00 P.M. **Luncheon**  
Sunflower Room

2:00 P.M. **Committee Session III-B**  
Lilac, Dahlia, Daffodil

4:00 P.M. **Refreshment Break**  
Sunflower Foyer

4:30 P.M. **Committee Session IV-B**  
Lilac, Dahlia, Daffodil

6:30 P.M. **Dinner**  
Sunflower Room

8:00 P.M. **Joint Plenary Session**  
*The Challenge of the*  
*Information Society*  
Marcelo Alonso  
Principal Research Scientist, Rtd.  
Florida Institute of Technology

#### Panel

Yoshihiro Kogane  
Faculty of Humanities  
Toyo Gakuen University  
Tokyo, JAPAN

Jerry Pournelle  
Author, Futurist  
Studio City, Calif.

Jameson Kurasha  
Department of Religious Studies,  
Classics and Philosophy  
University of Zimbabwe  
Harare, ZIMBABWE

Ballroom 1

# Agenda

## Thursday, August 24

- 7:00 A.M. Breakfast**  
Sunflower Room
- 8:30 A.M. Committee Session V**  
Ballroom 3, Ballroom 4, Rose, Azalea, Lilac, Dahlia, Daffodil
- 10:30 A.M. Refreshment Break**  
Sunflower Foyer
- 11:00 A.M. Session VI**  
Ballroom 3, Ballroom 4, Rose, Azalea, Lilac, Dahlia, Daffodil
- 1:00 P.M. Luncheon and Plenary**  
*The Unity of Man and Science*  
D.H.R. Barton  
Nobel Laureate in Chemistry  
Distinguished Professor of Chemistry  
Texas A & M University  
College Station, Texas USA  
Sunflower Room
- 2:30 P.M. Summary Session**  
Ballroom 3, Ballroom 4, Rose, Azalea, Lilac, Dahlia, Daffodil
- 4:00 P.M. Refreshment Break**  
Sunflower Foyer
- 4:30 P.M. Closing Plenary Session**  
Ballroom 1
- 6:30 P.M. Dinner**  
Sunflower Room
- 8:00 P.M. International Highway Project**  
Hikoji Takahashi  
Chief Director  
Japan-Korea Tunnel  
Research Institute  
Tokyo, JAPAN
- Hui An Zhao  
Co-Chairman  
Preparatory Committee  
International Highway Project  
Beijing, CHINA
- Ballroom 1

## Friday, August 25

- 7:00 A.M. Breakfast**  
Sunflower Room
- 8:30 A.M. Buses depart**  
Hotel Lobby
- 10:00 A.M. International Wedding Ceremony and Entertainment**  
Olympic Stadium
- 12:30 P.M. Buses return to hotel**  
Olympic Stadium
- 1:00 P.M. Luncheon**  
Sunflower Room
- ~~5:30~~  
~~6:00~~ **5:30 P.M. Buses load**  
Hotel Lobby
- ~~7:00~~  
~~6:30~~ **7:00 P.M. Farewell Banquet and Entertainment**  
Little Angels Performing Arts Center

## Saturday, August 26

- 7:00 A.M. Breakfast**
- 8:30 A.M. Special Seminar**
- 1:30 P.M. Tour of Historical Sights**
- 6:00 P.M. Dinner**

## Sunday, August 27

- 7:00 A.M. Breakfast**
- 8:30 A.M. Departure, 1-day Tour**
- 6:00 P.M. Dinner**

## Monday, August 28

- 7:00 A.M. Breakfast**
- All Day Departures for Airport**

### Scientific Objectivity and Human Values

Over the past three hundred years it has been increasingly recognized that scientific method and research is the best way to determine issues of empirical fact. The implications of this for the study of human values has not yet been fully appreciated. There is abundant evidence that changing perceptions about issues of empirical fact have had a very significant impact on ethical beliefs and it would be good for this to be documented and its implications explored.

The world's religious, and philosophical traditions all teach the virtue of seeking the truth, and of living in accordance with that truth. But the question arises whether scientific knowledge is the only path to such insight. Is human knowledge limited to what scientific objectivity can tell us or are there other ways of knowing? Indeed are human beings actually capable of total objectivity? This issue is highlighted by the acute anxieties many scientists feel when confronted with well-documented but unusual empirical evidence which cannot be readily fitted into existing scientific paradigms. This suggests that human intuition, judgement and sense of probability may play a more significant role in what is believed to be "objectively" the case than is often realized.

Many religious people feel that there must be an objective moral order which human reason is, or should be, capable of recognizing and accepting. This view has recently been strongly championed by Pope John Paul II's encyclical **Veritatis Splendor** which assumes that natural law and divine revelation unite to give insight into the intrinsic good or evil of particular actions independent of the circumstances in which persons find themselves. This view has been challenged by others who feel that ethical judgements must always be contingent on the situation and necessarily dependent on empirical discovery that is found to be of benefit to humanity.

Such discussions might be thought to echo the question posed in Greek philosophy: "Is a deed good because God wills it, or does God will it because it is good?" To pose the question in such a way does however beg some questions for it implies that morality is unchanging, whereas sociological research shows that moral values and laws enforcing morality change significantly as human circumstances change. Scientific knowledge certainly plays a role in changing moral attitudes though find detached objectivity in such matters hard to achieve on moral issues where feelings run strong.

Within the Anglican religious tradition there has been, since the time of Bishop Butler in the 18th Century, a tradition that ethical judgement must always be in accord with empirical reality and change as human circumstances change. This tradition had its greatest influence in the 1960's when reports from the Church of England's Board for Social Responsibility led to a large number of changes in British law on moral issues. Now, however, that tradition is less influential in Church circles. It is also less influential in philosophical circles where, ever since Kant, there has been a continuous tradition of questioning the legitimacy of seeking to move from knowledge of what *is*, to beliefs about what *ought* to be.

Chinese philosophy, however, has always sought to bring harmony between fact and value and to identify ethical judgements with what is discovered to be natural and beneficial to the individual and society. This philosophy in part depends on seeing the goal of learning as being not simply the acquisition of more and more knowledge, but more importantly as the application of knowledge to the human situation.

Islamic thought is convinced that there can be no ultimate clash between revelation and empirical knowledge. But the Islamization of knowledge does face a challenge in its quest to integrate (Revealed) normative knowledge and (Acquired) empirical knowledge. And this has significant implications for present-day Muslim education.

Unification Thought is committed to the view that in the final analysis there can be no clash between the knowledge gained through science and the absolute values it sees as enshrined in the world's religions.

The unity of fact and value may perhaps be illuminated by exploring the claim today that objective scientific knowledge may turn out to be an ally of theistic belief. This view is most vividly expressed in the claim of physicist Paul Davies that "Science is a surer path to God than religion."

It is hoped that by gathering together philosophers from differing traditions and countries together with social scientists, educators, and theologians, we may help each other to explore and articulate the several ways in which we seek to unite our moral convictions with our beliefs about the nature of reality.

## Committee 1-Ballroom 3

---



**Honorary Chair**  
**Ninian Smart**  
J.F. Rowny Professor of  
Comparative Religions  
University of California,  
Santa Barbara, California  
USA



**Organizing Chair**  
**Paul Badham**  
Dean of Faculty of Theology  
University of Wales  
Lampeter, Dyfed  
UNITED KINGDOM

### Session I

Tuesday, August 22, 2:00 - 4:00 pm

#### 1. Scientific Knowledge and Human Knowledge



**Maria Golaszewska**  
Institute of Philosophy  
Jagiellonian University  
Krakow, POLAND

**Discussant**  
Gene James  
Professor of Philosophy  
University of Memphis  
Memphis, Tennessee USA

#### 2. Changing Levels of Scientific Control over Life and Death and their Impact on Morality and Law



**Christie Davies**  
Professor of Sociology  
University of Reading  
Reading ENGLAND

**Discussant**  
Ghulam Saqeb  
Director, Islamic Educational  
Research and Development  
Islamic Textbooks International  
London, ENGLAND

### Session II

Tuesday, August 22, 4:30 - 6:30 pm

#### 1. Modern Scientific World View and Value Subjectivism



**Gene G. James**  
Professor of Philosophy  
University of Memphis  
Memphis, Tennessee, USA

**Discussants**  
Janis Vejs  
Philosophy & Sociology Institute  
Latvian Academy of Social  
Sciences  
Riga, LATVIA

Mohammed Hazim Shah  
Philosophy of Science Dept.  
University of Malaya  
MALAYSIA

#### 2. The Spirit of Science in the Background of Humanism



**Dachun Liu**  
Head, Department of Philosophy  
People's University of China  
Beijing, CHINA

**Discussant**  
Xinzhong Yao  
Lecturer in Chinese Religion and  
Ethics  
University of Wales  
Lampeter, WALES

## Committee 1-Ballroom 3

### Session III-A

Wednesday, August 23, 8:30 - 10:30 am

#### 1. Fact, Value and the Categorical Imperative



**Janis Vejs**  
Institute of Philosophy and  
Sociology  
Latvian Academy of Social  
Sciences  
Riga, LATVIA

**Discussant**  
Dachun Liu  
Head, Department of  
Philosophy  
People's University of China  
Beijing, CHINA

#### 2. Humanism, Scientism and Human Future: A Comparison of the Philosophy of Learning in Wang, Yang-ming and Francis Bacon



**Xinzhong Yao**  
Lecturer in Chinese Religions  
and Ethics  
University of Wales  
Lampeter, WALES

**Discussant**  
Carl Becker  
Integrated Human Sciences  
Kyoto, University  
Kyoto, JAPAN

### Session IV-A

Wednesday, August 23 11:00 - 1:00 pm

#### 1. Veritatis Splendor : The Quest for an Objective Moral Order



**Michael Coughlan**  
Assistant Principal  
Trinity and All Saints/  
University of Leeds  
Leeds, ENGLAND

**Discussant**  
Maria Golaszewska  
Institute of Philosophy  
Jagiellonian University  
Krakow, POLAND

#### 2. Empiricism and Christian Ethics



**Paul Badham**  
Dean of Faculty of Theology  
University of Wales  
Lampeter, UNITED KINGDOM

**Discussant**  
Christie Davies  
Professor of Sociology  
University of Reading  
Reading, ENGLAND

### Session V

Thursday, August 24, 8:30 - 10:30 am

#### 1. The Effects of Human Values on Scientific Objectivity



**Carl Becker**  
Professor, Integrated Human  
Sciences  
Kyoto University  
Kyoto, JAPAN

**Discussant**  
Paul Badham  
Dean of Faculty of Theology  
University of Wales  
Lampeter, WALES

#### 2. Scientific Objectivity and Theistic Belief



**Cafer Yaran**  
Lecturer in the Department of  
Philosophy and Religious  
Studies  
Ondokuz Mayis University  
Samsun, TURKEY

**Discussant**  
Michael Coughlan  
Assistant Principal  
Trinity and All Saints/  
University of Leeds  
Leeds, ENGLAND

## Committee 1-Ballroom 3

---

### Session VI

Thursday, August 24, 11:00 - 1:00 pm

#### 1. The Muslim Quest for Integration of Revealed and Acquired Knowledge



**Ghulem Saqeb**  
Professor of Education  
formerly at  
University of London  
Institute of Education  
and  
King Abdulaziz University  
Jeddah, SAUDI ARABIA

##### **Discussants**

Cafer Yaran  
Lecturer in the Department of  
Philosophy and Religious  
Studies  
Ondokuz Mayıs University  
Samsun, TURKEY

Khalid Alavi  
Director  
Sheikh Zayed Islamic Centre  
University of the Punjab  
Lahore, INDIA

#### 2. Unificationism and Social Thought: A Complex Systems Perspective



**Colin Turfus**  
Assistant Professor  
Department of Mathematics  
Sun Moon University  
Chung-nam, KOREA

##### **Discussants**

Ninian Smart  
Professor of Comparative  
Religions  
Department of Religious Studies  
University of California  
Santa Barbara, California  
USA

Yong-suk Kim  
Dean  
Natural Science Department  
Sun Moon University  
Chung-nam, KOREA

### Genetic Knowledge, Human Values and Human Responsibility

Recent developments in the science of Genetics and certain accompanying technologies such as genetic screening techniques and gene therapy present great promise for the prevention and possible cure of "genetic-based" diseases and thus for the relief of much human suffering. However, genetic science is still at the frontier in gaining knowledge about gene mechanisms and manifestations and there are many uncertainties associated with any application of genetic technologies in the human context. There is, in fact, mounting evidence that any deterministic linear and unique causality model is inadequate to the complexity and flexibility of human genetic mechanisms. The general lack of understanding by the public of genetic uncertainties and the tendency to great over-expectation concerning the promise of genetic technologies makes the ethical and public policy issues surrounding the use of genetic knowledge of crucial importance for general discussion from a wide range of perspectives.

This committee will address the many value, scientific and public policy issues surrounding the use of genetic

knowledge and will do so from a wide variety of perspectives, cultural and ethnic as well as scientific, medical, legal, religious and philosophical. Important questions will be raised about the definitions of "health" and "disease"; "personhood" and "family." Ethical and legal issues concerning individual right and responsibility versus communal good and responsibility; concerning discrimination, stigmatization and the right of privacy will be discussed. A number of panel members will also address an ethic and ethos of responsibility including the notion of responsible, preventive medicine; genetic carrier responsibility, responsibility for family and for future generations. In addressing these issues the concept of Absolute (Universal) values will be a central concern.



**Organizing Chair**  
**Jacquelyn Kegley**  
Outstanding Professor of  
Philosophy  
California State University  
Bakersfield, California USA

#### **Session I The Present Status of Genetic Knowledge—What We Know and What We Don't Know**

Tuesday, August 22, 2:00 - 4:00 pm

##### **1. The Human Genome: Facts, Enigmas and Complexities**



**Guido Pincheira**  
Professor of Genetics  
University of Chile  
Santiago, CHILE

##### **2. Limitations of Linkage Studies and Multigenic Origins of Disease**

**Richard C. Strohman**  
Professor Emeritus  
Department of Cell and Molecular Biology  
University of California  
Berkeley, California, USA

**Discussants**  
Guido Pincheira  
Professor of Genetics  
University of Chile  
Santiago, CHILE

## Committee 2-Ballroom 4

### Session II The Concepts of "Genetic Health" and "Genetic Disease"—Do They Make Sense?

Tuesday, August 22, 4:30 - 6:30 pm

#### 1. Genetic Information and Genetic Essentialism: Will We Betray Science, the Individual and the Community?



**Jacquelyn Ann Kegley**  
Professor of Philosophy  
California State University  
Bakersfield, California USA

##### Discussant

**Xinhe Hu**  
Vice-Chairperson  
Department of Philosophy  
of Science and Technology  
Chinese Academy  
of Social Sciences  
Beijing, CHINA

#### 2. Treatment of Genetic Disease: Who is the Patient?



**Darren Shickle**  
Lecturer in Public Health  
Medicine  
University of Wales  
Cardiff, UNITED KINGDOM

##### Discussant

**Jacquelyn Ann Kegley**  
Professor of Philosophy  
California State University  
Bakersfield, California USA

### Session III-A The Present State of Genetic Knowledge and Its Implications for Health Care

Wednesday, August 23, 8:30 - 10:30 am

#### 1. The Present State of Genetic Knowledge and Its Implications for Genetic Screening



**Verle E. Headings**  
Professor of Pediatrics,  
Genetics and Human Genetics  
Howard University  
Washington, D.C., USA

##### Discussant

**Darren Shickle**  
Lecturer in Public Health  
Medicine  
University of Wales  
Cardiff, UNITED KINGDOM

#### 2. Genetic Knowledge and Human Value: A Clinician's View



**Rita Kielstein**  
Professor of Internal  
Medicine/Nephrology  
Center for Internal Medicine  
Otto von Guericke University,  
Magdeburg, GERMANY

##### Discussant

**Verle Headings**  
Professor of Pediatrics,  
Genetics and Human Genetics  
Howard University  
Washington, D.C., USA

### Session IV-A Treatment of Genetic Disease—Public Health Issues

Wednesday, August 23, 11:00 - 1:00 pm

#### 1. Amniocentesis and Gender Discrimination in India



**Kusum Kumar**  
Associate Research Professor  
Indian Law Institute  
New Delhi, INDIA

##### Discussant

**Robert Blank**  
Professor of Political Science  
University of Canterbury  
Christchurch, NEW ZEALAND

## Committee 2-Ballroom 4

### Session IV-A continued)

#### 2. The Chinese Perspective on the Use of Genetic Knowledge



**Xinhe Hu**  
Vice-Chairperson  
Department of Philosophy of  
Science and Technology  
Institute of Philosophy  
Chinese Academy of Social  
Sciences  
Beijing, CHINA

**Discussant**  
Gamal Serour  
Professor of Obstetrics  
and Gynecology  
Al-Azhar University  
Cairo, EGYPT

### Session V Genetic Knowledge Viewed from Ethnic, Cultural and Religious Perspectives

Thursday, August 24, 8:30 - 10:30 am

#### 1. Genetic Screening, Sickle Cell Anemia and the African and African-American Perspective: The Ethics of Screening and Counseling



**Segun Gbadegesin**  
Professor and Chair  
Department of Philosophy  
Howard University  
Washington, D.C. USA

**Discussant**  
Jacquelyn Ann Phlegar  
Masry and Vititoe  
Attorneys at Law  
Moorpark, California USA

#### 2. Islamic Perspectives on Genetic Information Use and Genetic Technology



**Gamal I. Serour**  
Professor of Obstetrics  
and Gynecology  
Al-Azhar University and  
Director, International Islamic  
Center for Population  
Cairo, EGYPT

**Discussant**  
Segun Gbadegesin  
Professor and Chair  
Department of Philosophy  
Howard University  
Washington, D.C. USA

### Session VI Public Policy for Genetic Knowledge and Its Use

Thursday, August 24, 11:00 - 1:00 pm

#### 1. Public Policy Issues: Genetic Knowledge and Its Use



**Robert Blank**  
Professor  
Department of Political Science  
University of Canterbury  
Christchurch, NEW ZEALAND

**Discussant**  
Theodore Phlegar  
Masry and Vititoe  
Attorneys at Law  
Moorpark, California USA

#### 2. Legal Implications of Genetic Screening and Counseling



**Theodore Phlegar and  
Jacquelyn Phlegar**  
Masry and Vititoe  
Attorneys at Law  
Moorpark, California, USA



**Discussant**  
Kusum Kumar  
Associate Research Professor  
Indian Law Institute  
New Delhi, INDIA

### Values and the Social Order: Order by Rules and Rules by Order

The committee is a continuation—with a different focus—of the work of the committee with the same working title at the 19th ICUS. A social system involves a collection of agents, who organize themselves or are organized, into a certain organizational structure. Such a structure roughly corresponds to what Hayek calls an ‘order’. The friends of the Free Society will judge a social order according to whether it tends to promote private liberty (Samuel Johnson, but also such diverse thinkers as Burke, Jefferson, Madison, Hayek, and so forth). Before we can evaluate social orders we have to describe them in a way that is relevant for the evaluation. Particularly important are the distinction *Voluntary (non-coercive) vs. Coercive orders (roughly, market vs. state)* and the distinction *Spontaneous vs. Constructed orders*. Since the value position chosen gives priority to freedom, Voluntary Order is *eo ipso* evaluated positively and Coercive Order negatively. Insofar as the distinction Spontaneous Constructed is based merely on the genesis, it is value-neutral. On the other hand, constructed order suggests a coercive element, which at least *prima facie* is morally suspect. Hence we can judge only from case to case. Qualifying as a spontaneous order is of course no guarantee that the order is non-coercive.

The archetype of a Coercive Order is the State. The origins of the State will be examined (Gordon Tullock), and the role of voluntary orders in the emergence of states and state-like structures in antiquity will be investigated (Peter Bernholz). *The market is logically and hence historically prior to any state-like structure* (Jasay). The modern welfare democracy (the “Churning Society”) is a good approximation to a Coercive-Spontaneous order. In recent history coercive suborders (state-financed) have tended to crowd out voluntary orders (in education, health care, etc.) (Anthony Flew). However, thanks to increasingly mobile sources of wealth-creation and to technological innovations, the market and the market-generated institutions will be growing in relative strength vis-a-vis the state (Victoria Curzon-Price). The state’s coercive power will shrink proportionally as we will live more and more in a world of competition. The title of Arthur

Seldon’s latest book *The State is Rolling Back* may, after all, not be over-optimistic. Spontaneous orderings at the level of local arrangements (regional and functional federalism) may also prove helpful (Peter Aranson).

The Committee will explore the thesis that property breeds order—that the market is prior (logically and hence historically) to any state-like structure (Jasay). Classical liberals have virtually ignored this phenomenon. If markets are productive outside as well as inside the law, what is the exchange rate at the margin between living standards and legality? If the political process is not necessarily moral, are individuals who are induced to break the law immoral? What if, in a concrete historical situation, both common and statute law frustrate experience and defy custom? The Committee will investigate the theory of the unofficial economy (Arthur Seldon). The evolution of morality will be investigated (Bruce Benson) and also the role and development of common law (Louis de Alessi). Classical liberals used to discuss good and bad law, and more or less law, but, since the state usually misses its target, the question in the real world with a highly imperfect political process is the risk of too much or too little law (Arthur Seldon). With contemporary Western democracies a new type of “law” emerges: “public” law (including constitutional and administrative law) not merely as law but as a “higher” law, a gradual erosion of private law ensues (Louis de Alessi). The distinction between law and legislation is blurred (H.-H. Hoppe). This is but one example of the trend alluded to in the above outline. The Committee will first deal with the theoretical and historical issues and then turn to case studies.



**Organizing Chair**  
**Gerard Radnitzky**  
Professor of Philosophy of  
Science, Emeritus  
University of Trier  
Trier, GERMANY

## Committee 3—Rose Room

### Session I Voluntary vs. Coercive Orders: Theory and History

Tuesday, August 22 2:00 - 4:00 pm

#### 1. The Cart Before the Horse: On Emergent and Constructed Orders, and Their Wherewithal



**Anthony de Jasay**  
Author, Economist and  
Political Philosopher  
Cany, FRANCE

**Discussant**  
Angelo Petroni  
Professor of Philosophy  
University of Calabria  
Calabria, ITALY and  
Director, "Centro Einaudi"  
Torino, ITALY

#### 2. The Emergence of States



**Gordon Tullock**  
Professor of Economics  
University of Arizona  
Tucson, Arizona USA

**Discussant**  
Hans-Hermann Hoppe  
Professor of Economics  
University of Nevada,  
Las Vegas  
Las Vegas, Nevada USA

#### 3. International Competition Among States: Minimal Coercion, Market Regime and Inno- vation: The Case of Antiquity



**Peter Bernholz**  
Professor  
Institute of the Social Sciences  
University of Basel  
Basel, SWITZERLAND

**Discussants**  
Antony Flew  
Emeritus Professor of Philosophy  
University of Reading  
Reading, ENGLAND

Gordon Tullock  
Department of Economics  
University of Arizona  
Tucson, Arizona USA

### Session II Cultural Evolution and Self- Determination

Tuesday, August 22, 4:30 - 6:30 pm

#### 1. Values, Preferences and Evolution



**Angelo M. Petroni**  
Professor of Philosophy  
University of Calabria  
Calabria, ITALY and  
Director, "Centro Einaudi"  
Torino, ITALY

**Discussant**  
Antony Flew  
Emeritus Professor of Philosophy  
University of Reading  
Reading, ENGLAND

#### 2. Towards a Theory of Autogovernment

**Alberto Benegas Lynch, Jr.**  
Professor of Economics and Dean  
University of Buenos Aires and  
Director, Escuela Superior de  
Economía y Administración  
de Empresas  
Buenos Aires, ARGENTINA

**Discussant**  
David W. Versailles  
Research Fellow  
University of Aix Marseille III  
Marseille, FRANCE

## Committee 3-Rose Room

### Session III-A Evolution of Morality and of Legal Institutions

Wednesday, August 23, 8:30 - 10:30 am

#### 1. Institutions and the Spontaneous Evolution of Morality



**Bruce L. Benson**  
Distinguished Research Professor  
Department of Economics  
Florida State University  
Tallahassee, Florida USA

**Discussant**  
Louis DeAlessi  
Professor of Economics  
University of Miami  
Coral Gables, Florida USA

#### 2. Value, Efficiency and Rules: The Limits of Economics



**Louis DeAlessi**  
Professor of Economics  
University of Miami  
Coral Gables, Florida USA

**Discussant**  
Bruce L. Benson  
Distinguished Research Professor  
Department of Economics  
Florida State University  
Tallahassee, Florida USA

### Session IV-A Forms of Government and Their Consequences

Wednesday, August 23, 11:00 - 1:00 pm

#### 1. The Political Economy of Monarchy and Democracy and the Idea of a Natural Order



**Hans-Hermann Hoppe**  
Professor of Economics  
University of Nevada,,  
Las Vegas  
Las Vegas, Nevada USA

**Discussants**  
Gordon Tullock  
Department of Economics  
University of Arizona  
Tucson, Arizona USA

Alberto Benegas Lynch, Jr.  
Professor of Economics and Dean  
University of Buenos Aires  
and Director, Escuela Superior de  
Economía y Administración de  
Empresas  
Buenos Aires, ARGENTINA

Angelo Petroni  
Professor of Philosophy  
University of Calabria  
Calabria, ITALY and  
Director, "Centro Einaudi"  
Torino, ITALY

#### 2. State Welfare and Individual De-moralization



**Antony Flew**  
Emeritus Professor of Philosophy  
University of Reading  
Reading, ENGLAND

**Discussant**  
Nils Karlson  
President  
The City University  
Stockholm, SWEDEN

## Committee 3—Rose Room

### Session V Escapes from Coercive Orders to Voluntary Orders

Thursday, August 24, 8:30 - 10:30 pm

#### 1. The Market Inside and Outside the Law: Naturally Imperfect vs. Politically Distorted Markets

**Arthur Seldon**  
Advisor  
Institute of Economic Affairs  
London, ENGLAND

#### 2. International Commerce as an Instance of Non-Coerced Social Order



**Victoria Curzon-Price**  
Director, European Institute  
Geneva University  
Geneva, SWITZERLAND

**Discussant**  
Wolfgang E. Kasper  
Professor of Economics  
University of New South Wales  
Campbell, AUSTRALIA

### Session VI Regional and Functional Federalism Facilitates Freedom

Thursday, August 24, 11:00 - 1:00 pm

#### 1. Competitive Federalism for the Era of Globalization

**Wolfgang Kasper**  
Professor of Economics  
University of New South Wales  
Campbell, AUSTRALIA

**Discussant**  
Alberto Benegas Lynch, Jr.  
Professor of Economics and Dean  
University of Buenos Aires  
and Director, Escuela Superior de  
Economía y Administración de  
Empresas  
Buenos Aires, ARGENTINA

#### 2. Voluntary and Coercive Orders in the Health Care System



**Wilfried von Studnitz**  
Former Professor at the Medical  
Faculty  
University of Gothenburg  
Gothenburg, SWEDEN, and  
Director of the Medical  
Diagnostic Institute  
Munich, GERMANY

**Discussant**  
Hans-Hermann Hoppe  
Professor of Economics  
University of Nevada, Las Vegas  
Las Vegas, Nevada USA

### Science, Nature and the Sacred

The main purpose of this committee will be to reveal and recover the sacred nature of scientific activity, and by implication of all intellectual work. When the intellect is not oriented towards and in the service of Divine wisdom, it is bound to become a force for fragmentation, self-service and evil. Science has been for some of the greatest scientists a spiritual path, a way to connect with and serve the Sacred. Rightly understood and oriented, it can be so again. The best of the scientists have always approached science as a sacred activity—an activity that could yield “secrets of the Old One” (Einstein). In his own words, Kepler was—and, by extension, every scientist potentially is—“a priest of God in the temple of Nature”. Said Einstein,

It is, of course, universally agreed that science has to establish connections between the facts of experience, of such a kind that we can predict further occurrences from those already experienced. Behind the tireless efforts of an investigator there lurks a stronger, more mysterious drive: it is existence and reality that one wishes to comprehend.... Certain it is that a conviction, akin to religious feeling, of the rationality or the intelligibility of the world lies behind all scientific work of a higher order.

It is important, however, to note that Einstein does not use the phrase “religious feeling” in any sectarian or churchly sense; he means a feeling of awe, mystery, subtlety and vastness—precisely the feeling one has in the presence of the Sacred. In another context he called it a “cosmic religious feeling” which he regarded as the “strongest and noblest motive for scientific research.” This feeling is

one of rapturous amazement at the harmony of natural law, which reveals an intelligence of such superiority that, compared with it, all the systematic thinking and acting of human beings is an utterly insignificant reflection.... The most beautiful thing we can experience is the mysterious. It is the source of all true art and science.... To know that what is impenetrable to us really exists, manifesting itself as the highest wisdom and the most radiant beauty which our dull faculties can comprehend only in their most primitive forms—this knowledge, this feeling, is at the center of true religiousness. In this sense and in this sense only, I belong in the ranks of devoutly religious men.

How is it then that science is viewed by many people these days, some of them thoughtful and of good will,

as a force opposed to spirituality and as chiefly responsible for impoverishment and desacralization of Nature? What seems to have been the highest motivation and aspiration of great scientists—understanding the Divine wisdom through a study of Nature and serving of humanity through technological applications of science—seems now more associated with control and exploitation of nature in the service of a military-industrial complex, underpinned by fear and greed. What is the reality behind this perception? Have the motivations of the scientists in fact changed? Or are there historical and social pressures on the scientists—thus on science, as a general activity—to serve ends which may not be in accord with their highest aspirations? Are some of these changes parallel to the differences between the aspirations of the great saints and the concerns of the established churches?

As Western religions have more and more emphasized faith as against reason in the last three centuries, scientists have been pushed in the apparently opposite camp of knowledge, experience and insight. Also, in the face of the long drawn-out warfare in Europe among the various sects of the Christian faith, many people—among them some very spiritually-oriented scientists—wished to separate their activities from sectarian religion altogether. It has erroneously appeared to many that a separation from sectarian religion is the same as a separation from the Sacred.

Because of the impact of large scale institutionalization of science, especially in this century when the contribution of basic science and technology to the war effort has been more and more appreciated, science and technology get deeply intertwined in the minds of the policy makers and the general public. The very close connection of science with technology and the emphasis on the utilitarian aspects of knowledge is bound to have deleterious effect on the purer aspirations of the scientists, especially when the power of mastery over nature is sundered from the spiritual impulse of transformation of our inner nature for the purpose of serving the Divine. When we can control much of nature without submitting ourselves to spiritual disciplines mitigating against ambition, greed and hubris, exploitation of others—nature, other cultures, other species—becomes unchecked by our own higher, but uncultivated, impulses of compassion and love. It is easy to forget what Einstein said, echoing the insight of all the great spiritual sages of the world, “The true value of a human being is determined primarily by the measure and the sense in which he has attained liberation from the self.”

## Committee 4—Azalea Room

---

The very success of science in the past four centuries in understanding the mysteries of the universe, and its relationship with power structures through its coupling with technology, has in some circles led to a sense of hubris about the scientific approach to nature. Whereas great scientists have seldom held that scientific approach to Nature is the only way to understand the whole of Reality, some scientists and philosophers of science have concluded that "non-science in non-sense." Not only does such an attitude serve badly the open-ended nature of scientific inquiry itself, it also tends to impose on Nature a particular and limited view. At any stage of development of science certain assumptions about Nature are necessary in order to make the observations manageable and communicable to others. But that does not mean that externally measurable and quantifiable aspects of Nature are all there is to Nature—not to speak about the rest of Reality. As was said earlier, "The most beautiful thing we can experience is the mysterious" (Einstein). To

insist on the fixity of only one particular view of Nature, as is often done in the name of science—as if science is, contrary to the major lessons of history of science itself, a finished or a dead activity which cannot undergo radical changes in its assumptions and procedures—is to impoverish Nature as well as humanity. Many people have concluded that science has brought about disenchantment and death of Nature. But science has been a wonderful path to the mysteries of Nature, and it is likely to keep bringing some scientists to the gates of Mystery.

A recovery of the spiritual values inherent in the practice of science, even though overshadowed by many internal and external forces, and in harmony with the aspirations of the great scientists would help heal our modern world in which science plays such a crucial and vital role, both in the West as well as in the East.



**Organizing Chairperson**  
**Ravi Ravindra**  
Professor of Religion and of  
Physics  
Dalhousie University  
Halifax, Nova Scotia  
CANADA



**Associate Chairperson**  
**Priscilla Murray**  
Faculty of Education  
St. Mary's University  
Halifax, Nova Scotia  
CANADA

---

### Session I Science and the Sacred

**Session Chair: Priscilla Murray**

Tuesday, August 22, 2:00 - 4:00 pm

#### 1. Science and the Sacred



**Ravi Ravindra**  
Professor of Religion and of  
Physics  
Dalhousie University  
Halifax, Nova Scotia  
CANADA

#### 2. East-West Perspectives on Methodological Approaches to Science and the Sacred



**James A. Baughman**  
Secretary-General  
ICUS  
New York, New York USA  
and Professor of Physics  
Mercy College  
Dobbs Ferry, New York USA

## Committee 4—Azalea Room

**Session II Perspectives from History**  
**Session Chair: George Sudarshan**  
Tuesday, August 22, 4:30 - 6:30 pm

**1. Unity and Interdependence in Science and Religion: Alternatives to Despair and Deconstruction**



**James Fleming**  
Science and Technology  
Studies  
Colby College  
Waterville, Maine USA

**2. Kepler and the Sacredness of Natural Science**



**Job Kozhamthadam**  
Reader  
Jnana Deepa Vidyapeeth  
De Nobili College  
Pune, INDIA

**Session III-A Views from the Physical Sciences**  
**Session Chair: Ravi Ravindra**  
Wednesday, August 23, 8:30 - 10:30 am

**1. Witnessing Awareness: Nature of Creativity**



**George Sudarshan**  
Professor of Physics  
University of Texas  
Austin, Texas USA

**2. Toward a Science of the Heart: David Bohm's Physics and Beyond**

**William N. Keepin**  
Director  
Positive Futures Project  
Santa Fe, New Mexico USA

**Session Discussant**

**Sung Bae Jin**  
Head, Unification Thought Institute  
Sun Moon University  
Chung-nam, KOREA

**Session IV-A From the Psychology of Science**  
**Session Chair: P. Krishna**  
Wednesday, August 23, 11:00 - 1:00 pm

**1. Brain Science and the Emergence of Values**



**Olga Quadens**  
Belgian National Science  
Foundation  
Belgian Institute for Space  
Aeronomy  
Brussels, BELGIUM

**2. Humility as a Scientific Principle**



**Dmitri Spivak**  
Senior Research Fellow  
Human Brain Institute  
Russian Academy of Sciences  
St. Petersburg, RUSSIA

**Session Discussant**

**Carlos Pulida**  
Iberoamericana University  
Lomas de Sante Fe  
MEXICO

## Committee 4—Azalea Room

---

### Session V Studies of Consciousness

Session Chair: Olga Quadens

Thursday, August 24, 8:30 - 10:30 am

#### 1. The Depths of Human Understanding: Science in Search of Meaning



**Alfredo Lagmay**  
Professor Emeritus  
Department of Psychology  
University of the Philippines  
Quezon City, PHILIPPINES

#### 2. The Sacred, Consciousness and Values



**Ana Maria Gonzalez-Garza**  
Director  
Education and Human Development Department  
Iberoamericana University  
Lomas de Santa Fe, MEXICO

### Session VI Other Significant Perspectives

Session Chair: Alfredo Lagmay

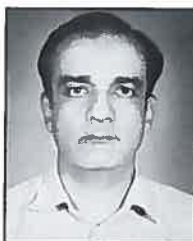
Thursday, August 24, 11:00 - 1:00 pm

#### 1. She Looks at His Science: Feminist Perspectives on Science, Nature and the Sacred



**Priscilla Murray**  
Faculty of Education  
St. Mary's University  
Halifax, N.S. CANADA

#### 2. Science and Religion: Two Aspects of a Single Reality



**Padmanabahn Krishna**  
Rector  
Rajghat Education Centre  
Krishnamurti Foundation India  
Varanasi, INDIA

#### Session Discussant

**M.V.R.S. Murthy**  
Research Student  
Department of Philosophy  
Osmania University  
Hyderabad, INDIA

### Re-Visioning the Aging Society: A Global Perspective

Population aging denotes a rise in the average age of the population linked to an increased proportion of elderly people. It is a demographic transition arising under conditions of modernization involving decline in both death rates and birth rates. Population aging is a distinctive and historically unprecedented phenomenon of the 20th century, and it poses a far-reaching challenge to all sectors of society: family, religion, economy, the educational system, health care, and government. From a global perspective, the challenge is most evident in advanced industrialized societies of the “North” (North America, Western Europe, and Japan), while less developed countries of the “South” typically have younger populations. Population aging, therefore, has global and international dimensions, as well as implications for medical technology, inter-generational relationships, and economic development. An aging society, in the final analysis, represents a triumph of longevity and is a cause for celebration. But it also demands a new vision of the human future for, as the Psalmist says, “Where there is no vision, the people perish.” The problem is how to bring together resources from science and cultural traditions to “re-vision” what an aging society may mean for the 21st century.

In the past generation gerontology has made significant advances in the biological sciences, the behavioral sciences, and in contributions from the humanities and arts. On the positive side, gerontology is a multidisciplinary enterprise; but, on the negative side, the field has too often focused attention at the level of individual aging or clinical problems of old age. There

is a pressing need today to integrate empirical findings from a **societal**, a **futuristic** and a **global** perspective. The committee will focus on these three dimensions as a touchstone for new directions in science and scholarship in the field of aging.

The proposed committee offers an interdisciplinary approach to an emerging global problem and responds to the ICUS theme of “Science and Values.” Whether in geriatric medicine or in pension policy, today we face difficult ethical choices in the allocation of resources: life-prolongation and euthanasia, taking care of young and old, and employment opportunities over the lifespan are only a few of the issues on the horizon. Neither technology nor public policy by themselves can resolve these troubling questions. Only by better integrating empirical findings from many fields and by considering old age as part of total lifespan development can we hope to respond to the challenge of an aging society.

In a limited symposium format it is impossible to synthesize all the major trends in gerontology while at the same time addressing emerging questions of ethics and policy. The proposed symposium will make the enterprise manageable by focusing on **societal**, **futuristic**, and **global** dimensions population aging. That is, we will look beyond individual aging to address questions at the societal level; we will make use of history to project future scenarios; and we will highlight cross-national and comparative issues wherever possible.



#### Organizing Chair

**Harry R. Moody**

Acting Director

Brookdale Center on Aging

Hunter College

New York, New York USA

## Committee 5—Lilac Room

### Section 1: Population Aging: A Surprise-free Forecast

#### Session I

Tuesday, August 22, 2:00 - 4:00 pm

##### 1. Scenarios for an Aging Society: Choosing our Future Selves



**Harry R. Moody**  
Acting Director  
Brookdale Center on Aging  
Hunter College  
New York, New York USA

##### 2. Solidarity with the Elderly and the Allocation of Resources



**Ruud H.J. ter Meulen**  
Professor of Philosophy  
Department of Health Ethics and  
Philosophy  
University of Limburg  
Maastrich  
THE NETHERLANDS

#### Session II

Tuesday, August 22, 4:30 - 6:30 pm

##### 1. Geriatric Ethics: What We Know, What We Hope

**Nancy Wilson**  
Baylor College of Medicine  
Huffington Center on Aging  
Houston, Texas USA

### 2. Community-based Services: The Challenge to Aging People



**Gordon Lishman**  
Operations Director  
Age Concern England  
London, ENGLAND

### Section 2: The Strong Face of Age: A Paradigm Shift

#### Session III-B

Wednesday, August 23, 2:00 - 4:00 pm

##### 1. Intergenerational Relationships: Family Memory and the Public World



**Kevin Brabazon**  
President  
New York State Intergenerational  
Network  
New York, New York USA

##### 2. The Longevity Factor: Implications for Human Potential in the Second Half of Life

**Lydia Bronte**  
Research Fellow  
The Phelps-Stokes Institute  
New York, New York USA

## Committee 5–Lilac Room

### Session IV-B

Wednesday, August 23, 4:30 - 6:30 pm

#### 1. Reconstructing the Pathways of Later Life



**W. Andrew Achenbaum**  
Professor of History and  
Deputy Director  
Institute of Gerontology  
University of Michigan  
Ann Arbor, Michigan USA

### Section 3: Practical Utopias

#### 2. Toward Appropriate Technology for an Aging Society



**Eric E. Sabelman**  
Consulting Associate Professor  
Department of Functional  
Restoration  
Stanford University Medical  
School  
Palo Alto, California USA

### Session V

Thursday, August 24, 8:30 - 10:30 am

#### 1. Life-long Health: Beyond the Medical Model



**Robert M. Schmidt**  
Professor and Director  
Center for Preventive Medicine  
and Health Watch International  
California Pacific Medical  
Center  
San Francisco State University  
San Francisco, California USA

#### 2. Holistic Care and Health Promotion: Implications for Old Age



**William L. Bergman**  
Medical Director  
Hahnemann Health Associates  
New York, New York USA

### Session VI

Thursday, August 24, 11:00 - 1:00 pm

#### 1. Everyday Mysticism: Spiritual Development in Later Life



**Robert C. Atchley**  
Director  
Scripps Gerontology Center  
Miami University  
Oxford, Ohio USA

#### 2. Physical Environment and the Elderly: Public Policy Issues



**Terrence Lee**  
School of Psychology  
University of St. Andrews  
Fife, SCOTLAND

#### Discussants

Lucille Nahemow  
Dept of Family Studies  
University of Connecticut  
Storrs, Connecticut USA

Choong-Suh Park  
Prof. and Head of Dept.  
Neurology Department  
Yeungnam University  
Taegu, KOREA

### In Pursuit of Beauty: Biological Foundations of Aesthetics

The traditionally modernist (and post-modernist) view of art and beauty is that since they belong within the sphere of *Geisteswissenschaft*—spiritual or mental knowledge—they cannot be studied within the realm of *Naturwissenschaft*—natural or scientific knowledge. The Platonic, Cartesian and Kantian division of the world into mental and physical still held true for C.P. Snow's "two cultures;" artists and scientists agreed on the separation, artists maintaining that their work was too lofty to be sullied by the materialistic, mechanistic and deterministic physical world, and scientists maintaining that the arts were a trivial fantasy useful only for passing leisure time.

However, this modernist (and post-modernist) picture has recently been undergoing a profound change. In a wide range of disciplines—neuroscience, psychophysics, psychology, cultural and physical anthropology, literary theory and criticism, oral tradition studies, visual perception studies, mythology, infant and child development studies, and the evolutionary study of ritual among others—a new approach to aesthetics is being explored. Chaos and complexity theory have demonstrated that most of the characteristics attributed by nineteenth-century philosophy of science to the physical universe—linearity, theoretical predictability, mechanistic causality, and so on—are true only of isolated and exceptional physical systems, and that much of the universe participates in complex nonlinear dynamical systems in which every part depends upon the behavior of the whole, the whole can be sensitively dependent on the behavior of the parts, and new and unpredictable forms of organization can emerge through spontaneous symmetry-breaking. These nonlinear features are especially characteristic of biological

systems, and are so *par excellence* of the complex feedback processes of the nervous systems of higher social animals such as ourselves.

This new scientific paradigm provides a justification for renewing the great classical and renaissance project of the scientific study of aesthetics. A daring new group of interdisciplinary researchers in several fields have begun to ask some fundamental questions: why do human beings across the whole range of human cultures find certain objects, sounds, movements, stories beautiful? Why are the basic genres and forms of the arts culturally universal? What structures and functions of the human brain and sensorium underlie aesthetic experience and competence? Why do scientists report a strong aesthetic element in their research? Do more primitive forms of aesthetic experience and competence exist in nature? What technological, ecological, social or ritual developments might there be, that could provide the adaptive pressure by which our remarkable human aesthetic abilities evolved?

This committee will investigate these questions, bringing together traditional classical knowledge and practice in a variety of human cultures with the most recent research in the human and social sciences and the humanities. The members have been chosen for a wide variety of expertise, including the neuroscience of cortical hemispheric specialization, cultural anthropology, the sociobiology of art, literary theory, mother-infant communication, evolutionary epidemiology, the neurobiology of visual pattern preference, chaos and complexity theory, and classical aesthetics.



**Organizing Chairperson  
Frederick Turner**

Founders Professor of Arts and Humanities  
University of Texas at Dallas  
Richardson, Texas, USA

## Committee 6–Dahlia Room

### Session I Anthropology of Aesthetics Tuesday, August 22, 1:30 - 4:30 pm

#### 1. Committee Introduction



**Frederick Turner**  
Founders Professor of Arts and  
Humanities  
University of Texas at Dallas  
Richardson, Texas, USA  
and



**Bryan Wijeratne**  
Research Associate  
Institute of Education  
University of Cambridge  
Cambridge, ENGLAND

#### 2. Universals in Ritual and Human Nature



**Jan Brögger**  
Professor of Social  
Anthropology  
University of Trondheim  
Dragvoll, NORWAY

#### 3. Antecedents of Musical Meaning in the Mother-Infant Dyad



**Ellen Dissanayake**  
Visiting Fellow  
Institute of Advanced Studies  
in the Humanities  
University of Edinburgh  
Edinburgh, SCOTLAND

### Session II Biological Adaptations and Norms in the Arts

Thursday, August 22, 4:45 - 6:45 pm

#### 1. Visual Art as Ancestral Lectures: Towards a Definition of Art and Theory of Its Social Function



**Kathryn Coe**  
Project Director, Compañeros En  
La Salud  
Hispanic Research Center  
Arizona State University  
Tempe, Arizona USA

#### 2. Do Cognitive Predispositions Predict or Determine Literary Value Judgments? Narrativity, Plot and Aesthetics



**Nancy Easterlin**  
Department of English  
University of New Orleans  
New Orleans, Louisiana USA

### Session III-B Evolutionary Significance of Tragedy and Monster Tales

Wednesday, August 23, 2:00 - 4:00 pm

#### 1. Tragedy and Chaos



**Alexander Argyros**  
Professor of Arts and  
Humanities  
University of Texas at Dallas  
Richardson, Texas USA

## Committee 6–Dahlia Room

### (Session III-B continued)

#### 2. An Antipode to Beauty: The Misbegotten in Western Narrative



**Brett Cooke**  
Associate Professor of Russian  
Department of Modern and  
Classical Languages  
Texas A & M University  
College Station, Texas USA

#### Session IV-B The Left and Right Sides of the Brain

Wednesday, August 23, 4:30 - 6:30 pm

##### 1. Can 'Teaching' the Right Brain Enhance Artistic Ability?

**Lauren J. Harris**  
Professor of Psychology  
Michigan State University  
East Lansing, Michigan USA

##### 2. Cerebral Assymetry and Aesthetic Emotion



**Jerre Levy**  
Professor of Biopsychology  
University of Chicago  
Chicago, Illinois USA

#### Session V The Aesthetics of Complexity

Thursday, August 24, 8:30 - 10:30 am

##### 1. An Eco-poetics of Beauty and Meaning



**Frederick Turner**  
Founders Professor of Arts and  
Humanities  
University of Texas at Dallas  
Richardson, Texas USA

##### 2. In Search of Texture



**Koen DePryck**  
Institute of Knowledge  
Management  
University of Ghent  
Dilbeek, BELGIUM

#### Session VI Spiritual Implications of Bioaesthetics

Thursday, August 24, 11:00 - 1:00 pm

##### 1. Biological Foundations of Aesthetics: An Indian Perspective



**Kapila Vatsyayan**  
Academic Director  
Indira Gandhi National Centre  
for the Arts  
New Delhi, INDIA

##### 2. To Be Announced

**Roger Crosthwaite**  
School of Metaphysical Sciences and  
Essential Psychology  
London, ENGLAND

#### Discussants

**Gordon Graham**  
Dept. of Moral Philosophy  
Director of Music  
St. Andrews University  
Fife, SCOTLAND

**Paul Wohlmuth**  
Director  
Institute for Law and  
Systems Research  
University of San Diego  
School of Law  
San Diego, California  
USA

### Towards the Harmony of Cultures

The diversity of the cultures we see in the world today is both interesting and stimulating. Through the interchange of culture, people have benefitted and progressed. But on the other hand, differences in culture can alienate groups and cause conflict, even war. Examples could be cited in Rwanda, Bosnia, India, etc. Do academics have suggestions on ways to overcome the differences and create harmony where there now is conflict? The aim is not to promote a mono-culture, but an understanding between, and appreciation of, different cultures.

Participants and paper writers will be selected from a wide national, cultural distribution and a variety of academic disciplines. If promoting 'harmony' is our goal, then those commenting and developing these strategies must themselves approach the problem from widely different perspectives. The test case is to see how we might agree, or promote 'harmony', among our own differing contexts.

We need to seek to try to understand why differences in cultures can lead to conflict and even violence, when it would seem that these differences would not necessarily end in strife but simply to a recognition of difference. Are the causes of violence, for instance, not really related to cultural, religious differences but more deep seated and then only fasten on to cultural differ-

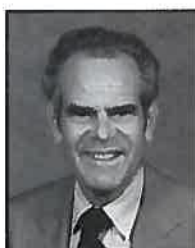
ences as a surface? If so, how can 'culture' be set aside so that all the real sources of conflict be addressed?

The United States participants will be a minority with as many other countries/cultures represented as possible. Thus, if the U.S. does have as wide an inclusion of the world's cultures and religions as any nation on the globe, what positive and negative comparative lessons might be learned from the U.S. in relation to other countries? Probably the clash between ethnic, religious groups within the U.S. is on the increase and represents a rising problem. Yet some peace and harmony has been achieved between differing groups in the nation's past. Is our situation in the U.S. and the situation of all other countries too, so changed that harmony is less possible now? If so, why and what can be done?

In summary, are we, both in the U.S. and world-wide, in an increasingly different situation that makes harmony also increasingly difficult rather than easier, given rapid communication and travel? What sources in today's world actually increase conflict and what should be the advantages in modern cultures that should promote a greater chance for harmony and a resolution rather than an increase of conflict?



**Honorary Chairperson**  
**Sang Hun Lee**  
President  
Unification Thought Institute  
Seoul, KOREA



**Organizing Chairperson**  
**Frederick Sontag**  
Professor of Philosophy  
Pomona College  
Claremont, California, USA

---

#### Session I

Tuesday, August 22, 2:00 - 4:00 pm

##### 1. The Unity of Cultures and Absolute Values: A Unificationist Approach



**Andrew Wilson**  
Director  
Encyclopedia Project  
International Religious  
Foundation  
New York, New York USA

##### 2. The Encounter of Religions and the Harmony of Cultures

**Juha Pentikäinen**  
Professor and Chair of the Department of the Study of Religion  
University of Helsinki  
Helsinki, FINLAND

## Committee 7-Daffodil Room

### Session I (continued)

#### Session Discussant

Hyon Bok Lee  
Professor of Phonetics and Linguistics  
Seoul National University  
Seoul, KOREA

### Session II

Tuesday, August 22, 4:30 - 6:30 pm

#### 1. Charismatic-Messianic Capacities to Transcend the Given World of Modernity: The New Cultural-Political Problems in Post-Cold War World



**Helmut G. Fritzsche**  
Professor of Systematic  
Theology (Retired)  
Rostock, GERMANY

#### 2. Towards Harmony of Cultures



**Arabinda Basu**  
Professor  
Sri Aurobindo International  
Center of Education  
Pondicherry, INDIA

#### Session Discussant

Hugh Spurgin  
Vice-President  
Unification Church of America  
Washington, D.C. USA

### Session III-B

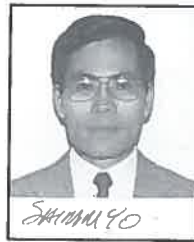
Wednesday, August 23, 2:00 - 4:00 pm

#### 1. The Haunting and Healing Power of History



**Hans Schwarz**  
Professor of Systematic Theology  
University of Regensburg  
Regensburg, GERMANY

#### 2. Philosophical Groundwork for the Harmony of Cultures



**Theodore T. Shimmyo**  
President  
Unification Theological  
Seminary  
Barrytown, New York USA

#### Session Discussant

Hisayoshi Watanabe  
Faculty of Integrated Human Studies  
Kyoto University  
Kyoto, JAPAN

### Session IV-B

Wednesday, August 23, 4:30 - 6:30 pm

#### 1. Unification Blessed Marriage: An Educational Paradigm Promoting a Harmony of Cultures (or... What About the Kids of the Next Generation?)



**David Carlson**  
Assistant Professor of World  
Religions  
Unification Theological  
Seminary  
Barrytown, New York USA

#### 2. Universalism, Nationalism and the Prospects for a Harmonious World Order



**Alexander Shtromas**  
Professor of Political Science  
Hillsdale College  
Hillsdale, Michigan USA

#### Session Discussant

Sarah Lewis  
Department of Theology and Religious Studies  
University of Wales, Lampeter  
Lampeter, Dyfed, UNITED KINGDOM

## Committee 7–Daffodil Room

---

### Session V

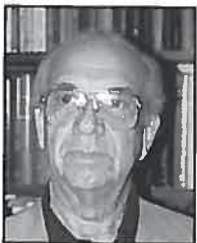
Thursday, August 24, 8:30 - 10:30 am

#### 1. Nuclear Disarmament Versus Nuclear War



**Michael J. Hignatsberger**  
Professor for Reactor Physics  
Institute for Experimental  
Physics  
University of Vienna  
Vienna, AUSTRIA

#### 2. The Information Revolution and World Harmony



**Marcelo Alonso**  
Principal Research Scientist  
(Retired)  
Florida Institute of Technology  
Melbourne, Florida USA

#### Session Discussant

Dietrich Seidel  
Assistant Professor of Theology  
Unification Theological Seminary  
Barrytown, New York USA

### Session VI

Thursday, August 24, 11:00 - 1:00 pm

#### 1. Group Culture and Individual Culture



**Henry H. Bauer**  
Professor of Chemistry and  
Science Studies  
Virginia Polytechnic Institute  
and State University  
Blacksburg, Virginia USA

#### 2. Cultural Prejudice and Cultural Conflict - From the Perspective of Communication



**Sanghwe Lee**  
Professor  
Department of Mass  
Communications  
Yonsei University  
Seoul, KOREA

#### Session Discussant

Jennifer Tanabe  
Academic Dean  
Unification Theological Seminary  
Barrytown, New York

### Summary Session

Thursday, August 24, 2:30 - 4:00 pm

#### 1. Summary Remarks



**Sang Hun Lee**  
President  
Unification Thought Institute  
Seoul, KOREA

# ICUS Statement of Purpose

---

## An Interdisciplinary Academic Forum

The International Conference on the Unity of the Sciences (ICUS) is an interdisciplinary academic forum dedicated to examining the important issues confronting our contemporary world. ICUS is sponsored by the International Cultural Foundation, Inc. (ICF), which is a non-profit organization set up to promote academic, scientific, religious and cultural exchange among the peoples of the world. ICF was founded in 1968 by the Reverend Sun Myung Moon.

Starting in 1972 with 20 participants, ICUS has continually expanded its scope, while also deepening its relationship with the worldwide academic community. During its tenure, the conference has come to be recognized as a forum for scholars and scientists committed to addressing issues of fundamental concern to humanity. ICUS now has a global network of cooperating scholars. In the words of Dr. Alexander King, President of the Club of Rome, "ICUS is the only world occasion where scholars from diverse disciplines can come together and discuss mutual interactions in their work as a multidisciplinary attack on global problems."

Apart from its meeting, ICUS also has an impressive and expanding publication program, ICUS Books, which includes volumes that come from conference committees as well as other single-authored manuscripts. Moreover, an ICUS journal, dedicated to publishing articles that reflect ICUS' concern with interdisciplinary studies and values, is fast becoming a significant and unique contribution to the academic enterprise.

## The Challenge

In our common effort to build a better future for all peoples, there is little question but that we face significant and even discouraging challenges. Many scholars and scientists, of course, devote themselves to exploring and finding solutions to the most pressing global concerns. Breakthroughs in science have contributed greatly to our knowledge of the world and to our understanding of and ability to deal with disease, famine, overpopulation, under-development and environmental pollution. Yet despite advances in science, humanity is presently confronted with grave dangers, some of which result from the often unintended but harmful side effects of technological applications of scientific knowledge.

At the same time, the problems which humanity now faces are not merely of a material or technical nature. As we know, it is oftentimes the more cultural and ethical factors which serve as the decisive forces in creating success or failure for the world's peoples. These cultural and ethical factors, however, are not generally understood as being easily integrated with a scientific worldview.

Science, which has probed the depths of the natural world, rarely assigns itself the task of exploring fundamental questions having to do with the meaning and purpose of human existence in the universe. These areas of exploration have often been taken up by philosophers, artists, theologians and mystics. Such explorers, like scientists, also seek to understand and eliminate unnecessary suffering in our world. They do this by identifying and teaching values which must serve as the foundation for individual and social existence, and which are productive of greater human fulfillment.

Neither the sciences nor religions and philosophies have provided adequate solutions to humanity's contemporary material and spiritual problems. However, if science is to fully address itself to the human situation, it must develop a greater appreciation for values and integrate this appreciation into the search for universal knowledge and well-being. Otherwise, the increase of scientific knowledge could very well lead to destruction. As Albert Einstein stated in an address given at Princeton Theological Seminary in 1939,

Science can only be created by those who are thoroughly imbued with the aspiration toward truth and understanding. This source of feeling, however, springs from the sphere of religion.... To this there also belongs the faith in the possibility that the regulations valid for the world existence are rational. I cannot conceive of a genuine scientist without that profound faith. The situation may be expressed by an image: science without religion is lame; religion without science is blind. (Albert Einstein, *Ideas and Opinions*, New York: Dell, 1954, pp. 54-55.)

Intellectual endeavors will solve human problems effectively only if we can appreciate standards of value which serve to guide the theoretical quest and practical application of scientific knowledge.

The global challenge to scholars, as understood in the ICUS perspective, is multidimensional. On the one hand, there is the need to understand and contribute to the possibilities for a fuller and more meaningful human life for all, by providing tools for comprehending and averting life-threatening situations. At the same time, ICUS also sees the global challenge as one that requires a transformation of the very practices by which the academic community acquires knowledge and seeks to address these challenges. This transformation involves not only the effort to integrate science and values, but also the commitment to a cooperative, interdisciplinary approach to inquiry.

## Facing the Challenge

ICUS was founded in order to squarely face the challenge discussed above. This founding spirit includes the firm

# ICUS Statement of Purpose

---

conviction that the world's scientists and scholars have a great potential to substantially contribute to the progress and well-being of humanity. ICUS was also established in order to foster the participation of the academic community in an international, interdisciplinary dialogue which considers the possibility and promise of an integrated, holistic and non-exclusive worldview founded on the premise of absolute, universal values.

In stating this underlying purpose, ICUS recognizes that the premise of absolute values may not be accepted by all, or even a majority, of participants. Nevertheless, it is possible to identify certain ennobling values that have inspired people over the ages, such as the pursuit of truth, beauty, and goodness—ideals that benefit all of humanity. The clarification of these shared values and their implications is worthy of serious study, whether or not these values are presumed a priori to be absolute. If scholars are to be able to chart a promising course for humanity's future, scientific knowledge must be related to values.

ICUS provides scholars with a rare opportunity to discuss timely issues in the company of a distinguished, international group of colleagues. As ICUS committees address problems of global concern, there is a concerted effort to extend the inquiry beyond conventional disciplinary limits. When, for example, topics such as development or education are considered, a variety of perspectives are included, such as technical, theoretical, philosophical and ethical orientations. In this way a more cooperative and comprehensive analysis can be made. Indeed, much of the distinctiveness and importance of ICUS resides in the fact that it is an international forum which examines topics in an interdisciplinary way and with paramount attention given to the factor of values.

ICUS participants are encouraged to use the resources at their disposal to discuss and contribute to the achievement of an improved understanding of our changing world. In this respect, science is understood as having a significant role to play, both as observer and participant, in contemporary processes of world transformation.

## A Distinctive Approach to Scientific Inquiry

From the observations discussed above, it follows that there are two fundamental criteria which underlie the approach which ICUS committees take in considering particular topics such as the origin and nature of the universe, biological evolution, biomedical ethics, economic development, environmental studies, education, or the comparative study of worldviews. First of all, ICUS is characterized by an interdisciplinary and unified approach to inquiry. This "Unity of Knowledge" criterion helps ICUS either to avoid the pitfalls

or to move beyond the over-specialization and fragmentation which may characterize mono-disciplinary studies. Second, with its "Science and Values" criterion, ICUS underscores the centrality of values as they operate both in the practice of science and in the subject matter of science. ICUS thereby emphasizes the need for an integration of scientific practices with a value perspective.

Committees with a "Unity of Knowledge" focus consider specific topics with a comprehensive analysis, relying on the input from many different disciplines. At the same time, a committee might take upon itself the task of exploring the very desirability and possibility of obtaining a "Unity of Knowledge" perspective: that is, scientific methodology itself may be examined. Committees that have a "Science and Values" focus reflect on the philosophical, religious, cultural or ethical issues that are relevant either to some particular form of scientific inquiry or to some area of scientific application, such as health care or the environment.

In the context of these characteristics, each ICUS meeting is challenged to address an overall conference theme. Past conference themes have included, "The Responsibility of the Academic Community in the Search for Absolute Values," "Modern Science and Moral Values," and "Absolute Values and the New Cultural Revolution." These have encouraged both the examination of the profound changes—changes related to advancing technology or modernization, as well as cultural flux—in our world and the effort to responsibly address global problems in a way that leads to the material and spiritual betterment of all people.

## The Participation of Scholars

ICUS is dedicated to a continuing study, in an atmosphere of complete academic freedom, of the underlying themes of the "Unity of Knowledge" and "Science and Values." Participants in ICUS come from a variety of nationalities, ethnic backgrounds, religions and cultural traditions. Thus, while participants' interests and expertise overlap to a degree with the vision expressed by the Founder, this overlap is generally only partial. The sponsors of ICUS do not expect participants to accept more of the Founder's vision than they in good conscience can. While many ICUS participants may be active in various other causes and activities, ICUS is completely independent of all other organizations, programs or political movements.

In summary, ICUS' purpose is to investigate with full academic freedom the enduring themes of the "Unity of Knowledge" and "Science and Values," and to study as scholars the scientific as well as the ethical and social implications of the specific themes of the conference.

## A Short History of ICUS

---

The International Conference on the Unity of the Sciences (ICUS) arises from the commitment of the Reverend Sun Myung Moon to create an integrated worldview which can serve as the basis for a peaceful, harmonious future. Only such a worldview can provide order to human knowledge and a resolution of conflicting values premises.

Hence, the two enduring themes of ICUS—"Unity of Knowledge" and "Science and Values"—have been raised as a challenge to stimulate the research and creativity of the world's scientists and scholars.

Starting in 1972 with 20 participants, ICUS year by year expanded its scope as it deepened its relationship with the worldwide academic community. This grow-

ing phase culminated with the historic Tenth ICUS, which convened 808 participants from over 100 countries in Seoul, Korea in 1981. By this time ICUS had gained recognition from the world academic community as being truly unique as an interdisciplinary, international gathering of scholars and scientists addressing issues of fundamental concern to humanity.

Now a worldwide network of cooperating scholars has been established and, together with ICUS, several other ICF programs are helping to sustain this network. Thus ICUS is presently moving toward smaller conferences. More focused attention is being placed on publishing committee manuscripts that contribute to the two fundamental ICUS themes, and enhance the cross-disciplinary dialogue.

## Conference Chronology

---



**Edward Haskell**  
*Chairman, Council for Unified  
Research and Education*  
**ICUS I (1972)**  
*Moral Orientation of the  
Sciences*  
20 participants from 8 nations



**Lord Adrian**  
*Professor of Physiology  
Nobel Laureate*  
**ICUS III (1974)**  
*Science and Absolute Values*  
128 participants from 28 nations



**Nobusige Sawada**  
*President, Japanese Association  
of Philosophy of Science*  
**ICUS II (1973)**  
*Modern Science and Moral  
Values*  
60 participants from 17 nations



**Robert S. Mulliken**  
*Distinguished Research Professor  
of Chemical Physics  
Nobel Laureate*  
**ICUS IV (1975)**  
*The Centrality of Science and  
Absolute Values*  
340 participants from 57 nations

## A Short History of ICUS



**Sir John Eccles**  
*Distinguished Professor of Physiology and Biophysics*  
*Nobel Laureate*  
**ICUS V (1976)**  
*The Search for Absolute Values: Harmony Among the Sciences*  
 360 participants from 53 nations  
**ICUS VI (1977)**  
*The Search for Absolute Values in a Changing World*  
 400 participants from 50 nations



**Kenneth Mellanby**  
*Director Emeritus, Monk's Wood Experimental Station*  
**ICUS XIII (1984)**  
*Absolute Values and the New Cultural Revolution*  
 225 participants from 40 nations  
**ICUS XIV (1985)**  
*Absolute Values and the New Cultural Revolution*  
 240 participants from 40 nations  
**ICUS XV (1986)**  
*Absolute Values and the New Cultural Revolution*  
 240 participants from 45 nations



**Eugene P. Wigner**  
*Professor of Physics Emeritus*  
*Nobel Laureate*  
**ICUS VII (1978)**  
*The Re-evaluation of Existing Values and the Search for Absolute Values*  
 450 participants from 60 nations  
**ICUS VIII (1979)**  
*The Responsibility of the Academic Community in the Search for Absolute Values*  
 485 participants from 67 nations  
**ICUS XII (1983)**  
*Absolute Values and the New Cultural Revolution*  
 300 participants from 80 nations



**Alvin M. Weinberg**  
*Distinguished Fellow*  
*Institute for Energy Analysis*  
**ICUS XVI (1987)**  
*Absolute Values and the Reassessment of the Contemporary World*  
 225 participants from 47 nations  
**ICUS XVII (1988)**  
*Absolute Values and the Reassessment of the Contemporary World*  
 260 participants from 47 nations  
**ICUS XVIII (1991)**  
*Absolute Values and the Reassessment of the Contemporary World*  
 210 participants from 40 nations



**Morton A. Kaplan**  
*Professor of Political Science*  
**ICUS IX (1980)**  
*Absolute Values and the Search for the Peace of Mankind*  
 600 participants from 80 nations  
**ICUS X (1981)**  
*The Search for Absolute Values and the Creation of the New World*  
 808 participants from 100 nations  
**ICUS XI (1982)**  
*The Search for Absolute Values and the Creation of the New World*  
 525 participants from 100 nations  
**ICUS XII (1983)**  
*Absolute Values and the New Cultural Revolution*  
 300 participants from 80 nations



**Tor Ragnar Gerholm**  
*Professor of Physics Emeritus*  
*University of Stockholm*  
**ICUS XIX (1992)**  
*Absolute Values and the New World Order*  
 200 participants from 40 nations  
**ICUS XX**  
*Absolute Values and the Unity of the Sciences: The Origin and Human Responsibility*  
 150 participants from 35 nations



The complicated problems of the world cannot be fully understood simply within the narrow perspectives of individual fields of knowledge. Their solution is beyond the capability of any single specialized society of scholars. This is because the problems of the world are essentially the problems of the human being. A human being has both a physical body with material desires and material senses and a spiritual self with spiritual desires and spiritual senses. The world is nothing but an extension of the human being with these two-fold aspects; in other words, the interrelationship of human beings with their two-fold aspects determines the order within societies and among nations. This is the reason why multidisciplinary research for solving the world's problems has to significantly consider such factors as religion, culture, art, and so on....

In order for ICUS to reassess today's world, there should be a unifying standard and its central point. This central point should relate with the two-fold desires of the physical body and the spiritual self of the human being. I recognize that, in the Middle Ages, God-centered thoughts and religious dogmatism blocked scientific exploration and limited the physical fulfillment of human beings. However, it has been a big mistake for humanistic thinkers since the Age of Enlightenment to hold not only that religious belief is

inferior to human reason, but also that humans' spiritual demands are in conflict with human reason. The emphasis which the Enlightenment or humanism put on rationality has been the great driving force for the sciences as they pursued the discovery of rational laws in nature. With reason only, however, we become separated from the ultimate purpose of the human being, who has a two-fold nature. Without this ultimate purpose, the human being cannot stand independently and even discover the right direction. While ignoring spirituality and being satisfied with reason and intellectual accomplishment, people have not been concerned about solving the urgent problems connected with their own ultimate purpose. As a result, they have come to be enthralled under materialism and so have lost their dignity.

Truth is one and is a principle ruling both nature and the human world. This principle in nature is the root and source of all things of the universe. This principle in the human being is the absolute values of love which guides us to complete our personalities through the harmony of our spirituality and physicality and to realize truth, goodness and beauty.

*From the ICUS Founder's Address, ICUS XVI, Atlanta, Georgia, November 26-29, 1987.*

# **The International Cultural Foundation**

---

The International Cultural Foundation (ICF) sponsors the ICUS meeting. ICF is a non-profit foundation founded in 1968 by the Reverend Sun Myung Moon with the purpose of promoting academic, scientific, religious and cultural exchange among the countries of the world. Based on a deep desire to create a peaceful world, ICF aims to foster the emergence of a rich, new world culture embodying the enduring common values of all cultures, yet retaining as well the unique and essential traditions of each people.

The scope and diversity of ICF is evidenced by the many programs supporting positive, value-based dialogue, research, and publishing by scholars and scientists of all disciplines and nationalities. In addition to ICUS, ICF sponsors the Professors World Peace Academy, Paragon House Publishers and other projects.

The underlying pattern and direction of all the ICF activities comes from the board of directors in response to the many suggestions received from scholars and scientists working with ICF.

## **ICF Leadership**

### **Founder**

---

**Sun Myung Moon**

### **Board of Directors**

---

**Chung Hwan Kwak, Chairman**

**Bo Hi Pak**

**Neil Albert Salonen**

**Hugh D. Spurgin**

**Shunichiro Yoshida**

**Gordon L. Anderson**

### **Ex-Officio Members**

---

**Young Whi Kim**

**Kae Hwan Kim**

**Won Pil Kim**

**Se Won Yoon**

**Osami Kuboki**

**Martin Porter**

**Paul Werner**

**Reiner Vincenz**

**Dennis Orme**

**Henri Blanchard**



**Eugene Wigner receives 1st Founder's Award**

## **The ICF Founder's Award**

On the foundation of fourteen years of support for scholarly activity, the International Cultural Foundation created a major new academic award: the ICF Founder's Award.

This award recognizes the outstanding achievements of great scholars in their fields of professional expertise as well as their contributions in the service of humanity and furthering causes of world peace. Both areas are considered in selecting the award recipient.

The award was initially given in 1982 and carries a substantial cash prize. It has been presented by the Founder of ICF, the Reverend Sun Myung Moon, on the occasion of the ICUS.



**Founder's Award recipient F.A. von Hayek**

## ICUS Planning Board



*Front row, left to right:* Camilo Dagum, Guido Pincheira, Se Won Yoon, Richard L. Rubenstein, Vincenzo Cappelletti, Alexander King, Kenneth Mellanby, Neil A. Salonen, Alvin M. Weinberg, Michael J. Higatsberger, Klaus Schleicher, Marcelo Alonso, Lloyd Motz.

*Back row, left to right:* Masaya Okada, Karl-Heinz Schulz, John Byrum, Mija Han Baughman, Joan Groom, Lloyd Eby, Ravi Ravindra, James A. Baughman, Lewis Ray, Brian Wijeratne, Gordon L. Anderson, Laura W. Lykes, Gregory Breland, Louise Perlowitz. (Not pictured: Norge Jerome, Jacquelyn Kegley)

### ICUS Planning Board

#### Conference Organizing Committee

Researches ways to make the conference function more efficiently as well as contribute more substantially to the ICUS themes of "Unity of Knowledge" and "Science and Values," through committee work, plenary lectures and task forces.

#### ICUS Publications Committee

Develops effective means to disseminate—through books, journals and monographs—the ideas and overall ethos of ICUS as presented in conference discussions and independently-written papers.

#### Research and Development Committee

Finds ways to enhance the ICUS contribution to global scholarship through research of contemporary issues of concern, encourages participation of new scholars, seeks out additional funding sources and develops long-range goals and projects.

**Michael J. Higatsberger**

*Committee Moderator*

**Alvin Weinberg**

**Norge Jerome**

**Ravi Ravindra**

**Gregory Breland**

*Executive Director, ICUS*

*Committee Coordinator*

**Lloyd Motz**

*Committee Moderator*

**Claude Villee**

**Marcelo Alonso**

**Jacquelyn Kegley**

**Se Won Yoon**

**Richard L. Rubenstein**

*Committee Moderator*

**Camilo Dagum**

**Guido Pincheira**

**Klaus Schleicher**

**Bryan Wijeratne**

*Research Associate, ICUS*

**James A. Baughman**

*Secretary-General, ICUS*

*Committee Coordinator*

IJUS is a quarterly interdisciplinary journal which began in the spring of 1988 and is published by the International Conference on the Unity of the Sciences (ICUS). It is dedicated to the comprehension, analysis and synthesis of the interrelations among the different branches of knowledge in its various manifestations. IJUS provides a forum for the publication of research and scholarly work that underscores the relationship between knowledge and values and seeks a more unified understanding of humanity and the universe.

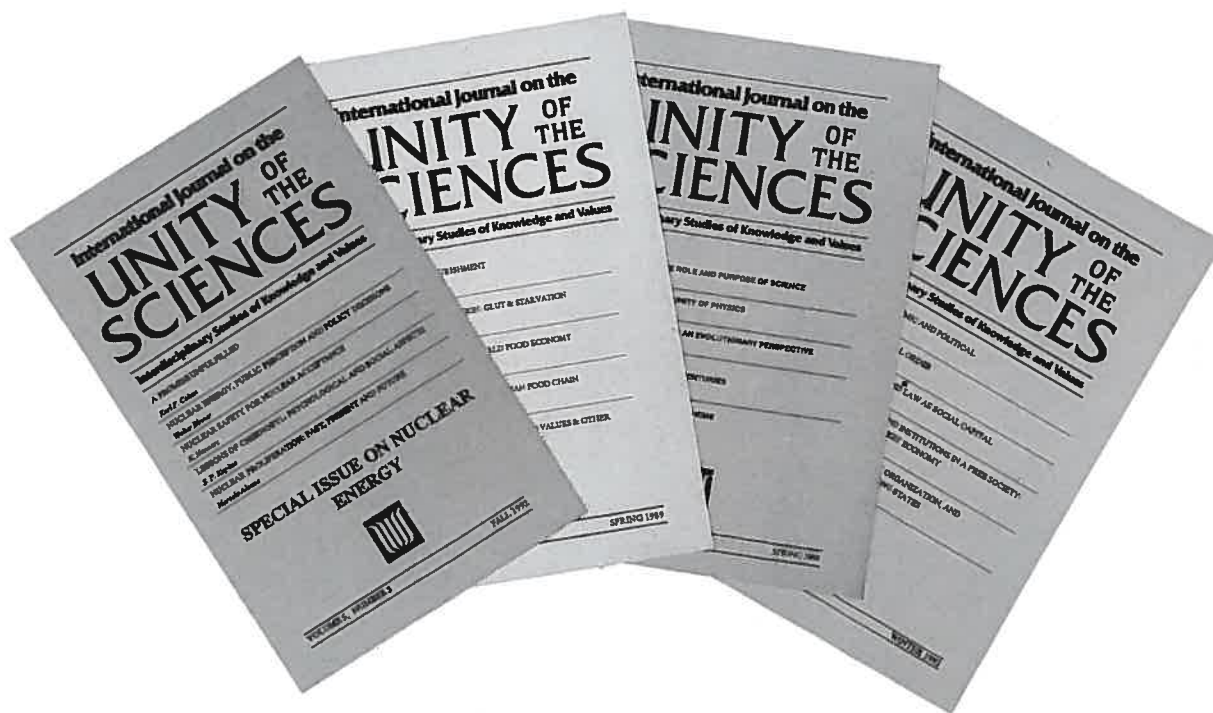
Individual issues focus on particular timely topics dealing with important issues confronting the world, discussed from an interdisciplinary perspective. Articles related to such disciplines as the Physical, Life or Social Sciences, Philosophy, Religion, Economics, Arts and Humanities address relevant issues in the context of the main themes of the journal, which are primarily the unity of knowledge and the relation between knowledge and values.

A journal of value-oriented interdisciplinary studies, IJUS goes beyond the scope of ICUS participants and papers presented at the ICUS meetings. Contributions in any way related to the purpose stated above and

dedicated to interdisciplinary studies are welcome. These may be in the form of commentaries, book reviews and editorials.

Each issue consists of:

- 1) An **Editorial Page** prepared by the editor, or another contributor, commenting on particular problems of current interest, or providing an overview of the content of the issue.
- 2) Scholarly **Articles** dealing with topics that correspond to the themes of IJUS. All papers are submitted for peer review prior to acceptance.
- 3) **Letters to the Editor**, referring to contents published in previous issues.
- 4) **News and Comments** on current events, information about past or future meetings and projects and critiques of papers.
- 5) **Book Reviews**, a list of **Book Received** and **Book Ads**.



### Eugene Wigner

All of the ICUS Family remember Eugene Wigner as a regular participant in ICUS, and as the chair person of ICUS VII, VIII and XII. But only those who worked in Wigner's scientific and technological fields are aware of how his intellect dominated so much of modern physics and nuclear engineering.

Wigner's lasting contribution to physics was his systematic introduction of the idea of symmetry into theoretical physics. In this he can be rightly described as Einstein's successor. The great paper on *Unitary Representations of the Inhomogeneous Lorenz Group* unified all of 20th century physics; and the extension of his ideas to gauge invariance dominates elementary particle physics. In addition, Wigner made seminal contributions to Solid State Physics and to Nuclear Physics. Whatever he touched, he had an uncanny ability to discern the most fundamental issues. *Fortune* magazine in 1950 described him as the "quiet genius who invented most of modern physics."

Eugene P. Wigner, more than any other single person, was the founder of Reactor Engineering. It was he who created, with his tiny group at the wartime Metallurgical Laboratory, the fundamental design for the Hanford Plutonium Producing Reactor (U.S. Patent 2,910,418). In addition, he invented the first water-cooled research reactor, the MTR (U.S. Patent 2,831,806), the forerunner of the NAUTILUS and the PWR.

Wigner also was a dominant figure in the early days of Reactor Theory. Some of his algorithms for calculating the critical conditions of chain reactors are still in use. In recognition of his central role, the Nuclear Reactor Physics Division of the American Nuclear Society has designated its annual award of excellence in Reactor Physics, The Eugene P. Wigner Reactor Physics Award.

Wigner was unique in possessing both a total command of reactor physics and an aptitude and liking for detailed engineering. I still marvel how the same person who conceived the Breit-Wigner theory of neutron absorption (based on a powerful mastery of quantum mechanics) would also pore for hours over DuPont's blueprints of the Hanford Reactors. And when Wigner found an error in the DuPont design (as in the number of control rods) he had no hesitation in insisting that the error be corrected.

All of us at the Metallurgical Laboratory stood in awe of Wigner's sheer intellectual power; his ability to



Eugene Wigner and the Reverend and Mrs. Moon upon reception of the Founder's Award in 1982.

calculate any calculable physical process—whether the strength of an I beam, or the displacement of graphite atoms under neutron bombardment (the Wigner Disease) or the thickness of the Hanford shield. All of this, and more, he would do seemingly effortlessly. As one of his assistants during those days, I always had the feeling that anything I calculated, Wigner himself had already calculated. But Wigner was proverbially gracious; he would always bend over backward in assigning credit to his collaborators, even though the ideas were usually his. When he and I wrote *The Physical Theory of Neutron Chain Reactors* he insisted on the authors being listed alphabetically (Weinberg and Wigner) even though he was very much the senior author.

But beyond his intellectual power, Wigner possessed an extraordinary sense of responsibility. When fission was discovered in 1938, Wigner and his friends, Szilard and Teller, took it upon themselves to enlist Albert Einstein's help in placing the matter before President Roosevelt. When Wigner was convinced that a helium-cooled plutonium producer could not be built in time, he single-handedly, by his persistent logic, converted the Metallurgical Laboratory and the DuPont Company to water-cooling. When, in 1964, he became convinced that America must take civil defense seriously, he had no hesitation setting aside his beloved theoretical physics to direct the Oak Ridge Civil Defense Project.

Eugene Wigner's excellence and his sense of responsibility were extraordinary. We lesser mortals who follow him do honor to his memory when we dedicate ourselves to achieving the standards of excellence and responsibility set by Eugene Wigner.

—Alvin M. Weinberg

### Kenneth Mellanby

On meeting Kenneth Mellanby, one is immediately struck by his presence, his humanity, his good humor and his serenity, indeed, his utter unflappability. These qualities are perhaps the best seen when you observe him chairing a planning committee where each member of the committee has his or her own special project to push. Out of this seeming chaos, Professor Mellanby manages to find a consensus. Much of the success of the three ICUS meetings he chaired, ICUS XIII, XIV and XV, must be attributed to Professor Mellanby's careful planning and his ability to have these plans carried out effectively. I worked with him on a number of projects relating to several ICUS meetings and have come to an appreciation of his remarkably varied talents and areas of expertise.

His career has mirrored his varied interests and his contributions to society as biologist, scientist, administrator, author, editor and consultant in ecological problems. After receiving his Ph.D. from the University of London, he took a position on the staff of the London School of Hygiene and Tropical Medicine during the 1930's and then went to East Africa as a Research Fellow studying insect-borne diseases. Just before the outbreak of World War II he returned to England and founded the Sorby Research Institute in Sheffield, which was funded by the Royal Society. Here experiments on human volunteers led to the development of a successful treatment for scabies, a disabling disease in war time. He was decorated for this work, which still forms a part of basic medical treatment. In other experimental work in which Professor Mellanby participated as a volunteer, there were studies of war time diets, emergency shipwreck rations, and the common cold. As a member of the Medical Corps of the Royal Army he traveled all over the world doing research on typhus and saw the first experiments in Southern Italy where DDT was used to eradicate insect-borne diseases such as malaria. After the War, he returned briefly to the University of London as Reader and then was appointed Founder and first Principal of the University College of Ibadan in Nigeria, now the University of Ibadan. Under his tutelage and guidance the institution went through its growing pains and now has become recognized as a leading university in Africa. For this work he received his Commander of the Order of the British Empire. He returned to England as head of the Department of Entomology at the Rothamstead Experimental Station until 1961, when he was appointed Director of the Monks Wood Experimental Station. Under his direction, this embryonic institution reached full maturity



Kenneth Mellanby receives an award from Chung Hwan Kwak (r) and Neil Salonen (l) for his work as chairman in 1986.

and is now recognized as the leading ecological center in Britain, if not in the world. He was a member of the Association for the Study of Animal Behavior and its President from 1957 to 1960 and a Fellow of the Institute of Biology and its President from 1972 to 1973. He was the organizer and first editor of the *Journal of Environmental Pollution* and author of a classic book, *Pesticides and Pollution*.

He was very active as a consultant in environmental problems, giving advice to governments and industry, not only in Britain, but in Peru, Korea, Mauritius and elsewhere. He was especially respected for his independence of mind, for never being unwilling to support unpopular or unfashionable cause if he thought they were right. For example, he opposed the mindless efforts to eliminate DDT before a suitable replacement was found, stressing that those responsible for this were condemning millions of people to death. In addition, he supported the use of nuclear power as being far less damaging to man and the environment than other forms of generating energy. As an ecologist, he tried to temper the violence of extremists while working for solutions that would benefit all of mankind. Before serving as Chairman of the ICUS meetings mentioned above, Professor Mellanby participated actively in many ICUS meetings as Vice-Chairman, Committee Chairman, and as author and commentator of topics considered by a number of different committees. In all of these, he has displayed his extremely wide range of interests and expertise as a member of the ICUS family. All of us owe a great deal of gratitude to Professor Mellanby for his commitment and dedication to ICUS.

—Claude A. Villee, Jr.

## Related Activities

### *Professors World Peace Academy (PWPA)*

#### **Interdisciplinary and International**

The Professors World Peace Academy is an educational organization of scholars from diverse cultural, disciplinary and political backgrounds. Through its interdisciplinary and international approach, scholars can engage in open discussion of realistic solutions to the problems of war and violence.

PWPA is a world-wide network of academics with chapters in 100 countries. Each chapter is an association of scholars tied to a common purpose seeking out the most important issues for peace in its own nation as well as those essential for world peace. PWPA envisions a world in which war is no longer viewed as an acceptable way to solve international problems.

#### **History of PWPA**

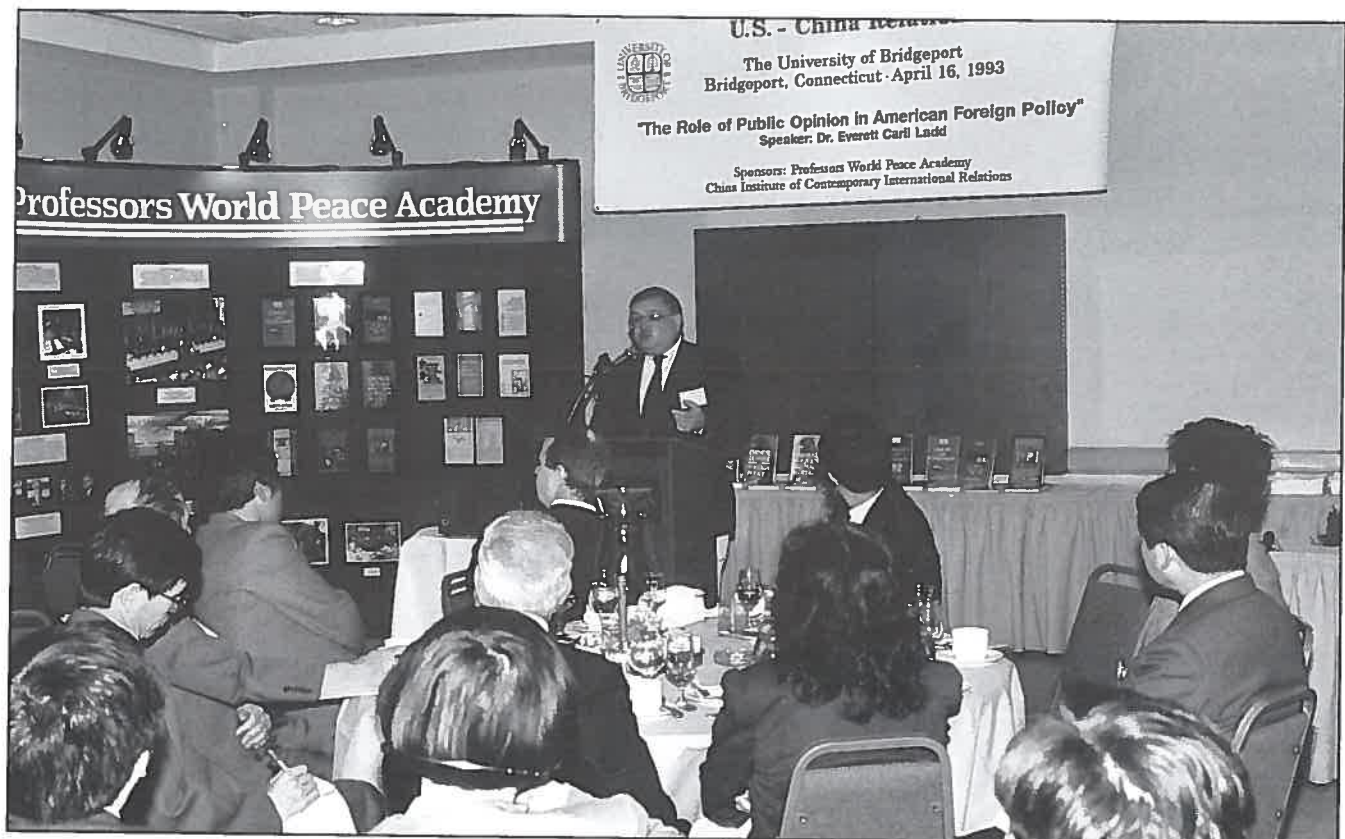
PWPA was founded by the Reverend Sun Myung Moon in Seoul, Korea in 1973. Korean-Japanese friendship was a main goal of the first conferences. It

sponsored the first International Conference on World Peace (ICWP) on the theme "World Peace and Asia" in 1974.

Through the 1970s the organization expanded significantly around the world with the help of ICUS. Then, on December 18, 1983 PWPA-International was founded at the First International Congress of PWPA Presidents in Seoul. Through its office, PWPA-International supports and coordinates the work of the PWPA chapters worldwide.

PWPA-International has assisted the development of the PWPA chapters with start-up funds for conferences and publications. It sponsors International Congresses for the chapter presidents and leading scholars on major global issues.

The PWPA is also developing a World University network and in April 1992 signed an agreement with the University of Bridgeport which serves as an initial step in forming the global system.



## Related Activities

### The PWPA Program

To achieve their goals, the PWPA chapters carry out a number of activities including:

- conduct research into issues related to war and peace and collect and store data and materials
- sponsor conferences and hold lectures and seminars for the academic community
- publish the respected quarterly *International Journal on World Peace*. The Journal carries articles on such subjects peace studies, development social theory, international law, immigration and hunger. It also publishes criticism, book reviews and editorial opinion
- publish books related to peace, as well as conference proceedings, newsletters, and brochures
- sponsor a wide range of interdisciplinary academic projects that support the purposes of PWPA

- award prizes and other distinctions to members of the academic community for significant contributions to peace
- help to arrange exchange programs of foreign and domestic scholars concerned with peace
- sponsor academic and student exchange through the World University network

### Publications

In 1984, PWPA launched *The International Journal on World Peace*. It also began an international publishing program which consists of conference proceedings, monographs and books published with Paragon House.

PWPA chapters in fifteen countries have their own publication programs. The chapters in Korea and Japan especially have produced a substantial number of journals and publications over the last twenty-two years. PWPA presidents also serve as advisors to the monthly *World & I* magazine.



## Related Activities

### Encyclopedia Project

The discussions and research devoted to the elucidation of absolute values and principles of unity among diverse academic disciplines should bear fruit as educational materials for the general public. Already the *World & I*, established in 1986, has drawn on the work of many scholars associated with ICUS and PWPA. But the ultimate educational vehicle, defining the very shape of knowledge, is the encyclopedia. A sister organization to the International Cultural Foundation (ICF), the International Religious Foundation (IRF), has begun research towards the creation of a new encyclopedia which can be a foundation for the emerging world civilization of the 21st century.

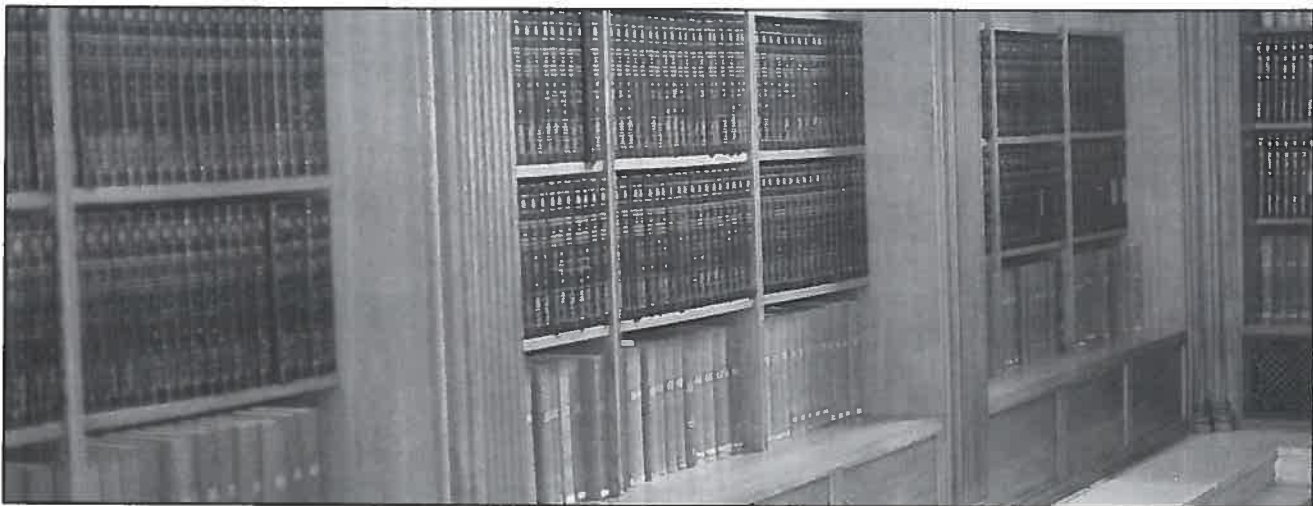
Why a new encyclopedia? The French Encyclopedists Diderot and d'Allembert overthrew the medieval Christian perspective of dogmatic knowledge by rejecting all that was subjective or metaphysical in favor of tangible objects. This approach, characteristic of the Enlightenment, was well suited to the development of science freed from the shackles of dogmatism, and for asserting the equal rights of individuals freed from the claims of traditional authority. The *Encyclopedie* was instrumental in popularizing the Enlightenment worldview to a large audience. This was a massive paradigm shift which has been foundational in the formation of the modern (secular) world.

Today's encyclopedias remain in the tradition of the *Encyclopedie*. The present standard of Encyclopedias in the English language, the *Encyclopedia Britannica* is dominated by a materialist and social-scientific perspective. Scientific "facts" are imputed to have universal validity. But the *Britannica* pays scant regard

to values and implicitly denies the reality of universal ideas—God, truth, beauty, love—understood in themselves, transcendent of any particular culture, philosophy or religion. It is strangely uncomfortable about investigating the inner man and the subjective side of life. The causes that lie beneath the surface world of artifacts and events are largely ignored. Furthermore, despite efforts to be inclusive, there is an implicit sense of Western superiority, as the West is the fount of scientific and materialist culture.

As the materialistic civilizations of East and West have run their course, there is need for a new encyclopedia which can once again transform the shape of knowledge, this time moving beyond the Enlightenment legacy of Diderot and d'Allembert. The new shape of knowledge should give primacy to the inner man, the life of the mind, and harmony between science and spirit. It should value all constructive human activities, irrespective of religion, race or culture, as they contribute to the realization of the highest human ideals.

Research on a new encyclopedia is at the formative stage. The first task is to articulate a value perspective which is open to all the sciences, social sciences, arts, and philosophies. Through consultations with scholars in every field, we hope to arrive at a multicultural synthesis which will be open to the diversity of human knowledge and at the same time give a sense of its unity. Hopefully, these consultations will result in comprehensive guidelines for the editing of the encyclopedia and develop a network of editors in all different fields. On this foundation, we expect production to begin within a few years.



## Related Activities

### Paragon House Publishers

Paragon House is a progressive, competitive mid-size publisher of serious, intellectually-oriented non-fiction for the general trade and college markets. Founded in 1984 as a division of the International Cultural Foundation, Inc. (ICF), a non-profit, educational and charitable organization, Paragon House is an editorially autonomous, commercial publishing venture driven by this purpose: to excel in publishing books that promote informed discussion of important issues advanced through quality scholarship, literary achievement, and intellectual independence.

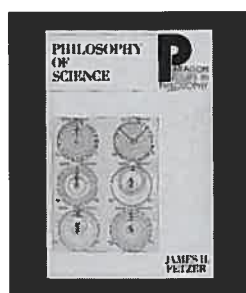
Specializing in both original and reprint nonfiction and reference books in cloth and paper formats, Paragon

House publishes approximately thirty new titles annually. With a strong, successful backlist, the company has over 600 active titles currently in print.

With a focus on the topical and thought-provoking, Paragon House publishes books in the areas of political science, science, international relations, philosophy and religion, literary and historical biography, military history, and women's studies. Grounded in scholarship, the books are written by established and cutting-edge thinkers in a variety of disciplines. Notable among academic offerings is the *Paragon Issues in Philosophy* series, featuring works by James Fetzer and Eve Browning Cole.

### Recently Published

#### Philosophy of Science

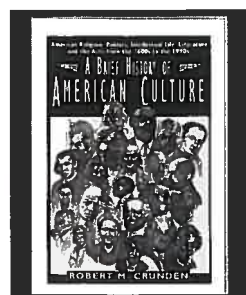


*James Fetzer*

In this volume Fetzer supplies a foundation for the inquiry into the nature of science, the history of science, and the relationship between the two.

*Paragon Issues in Philosophy*

#### A Brief History of American Culture American Religion, Politics, Intellectual Life, Literature and the Arts from the 1600s to the 1990s



*Robert Crunden*

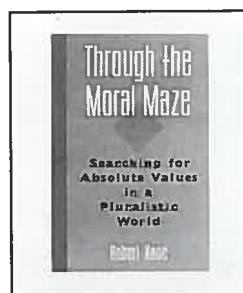
"Leavening common information with uncommon insights and skillfully managing its mission, Crunden's work should provoke fine conversations on what Americans might want to say next."

—*Kirkus Reviews*

"A readable, insightful overview of the underlying patterns that give shape to U.S. cultural history."

—*Booklist*

#### Through the Moral Maze: Searching for Absolute Values in a Pluralistic World



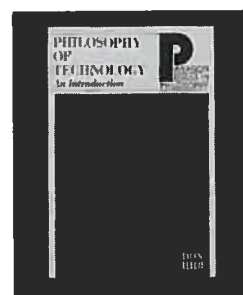
*Robert Kane*

"With impressive erudition and lucid logic, Kane shows that rational intelligent people can aspire to objectivity not just in ethics but in diverse areas of value conflict, including politics, art, education, and religion. Remarkable for its daring, *Through the Moral Maze*

offers hope for resolution in moral debates too often marred by skepticism and intolerance."

—*George Graham, University of Alabama, Birmingham*

#### Philosophy of Technology: An Introduction



*Don Ihde*

Philosophy of Technology is a clear introduction to one of philosophy's newest issues: the impact of technology on science and people.

"Ihde's introduction should prove useful as a text in a variety of science, technology, and society-type courses"

—*Science, Technology & Society*

*Paragon Issues in Philosophy*

## Related Activities

### *World & I*

The *World & I* is an encyclopedic magazine that covers topics from various fields of human endeavor and experience, and from many countries and cultures.

Each issue, which has over 400 pages, deals with a broad range of subjects presented in eight editorial sections.

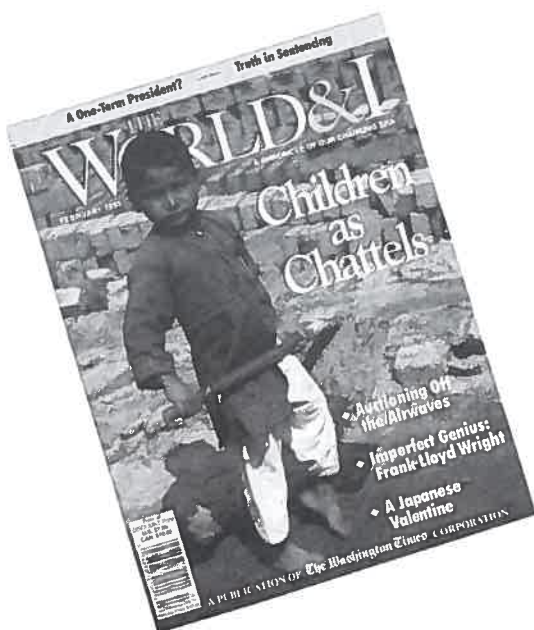
The *World & I* combines the best of scholarship and the best of journalism. It prints analytical and insightful articles that are presented in an interesting and enjoyable format. Its goal is to make information comprehensive and meaningful to literate and thoughtful people and to become an invaluable reference book for important topics of our day, as well as a chronicle of our times.

It also has the goal to contribute to understanding across national, ethnic and cultural boundaries in a world that is becoming so interdependent that access to the latest information, analysis and thinking has become an absolute necessity.

The *World & I* is designed to provide adults and intellectually engaged students with a cumulative and encyclopedic account of contemporary life in the many nations and cultures of the world.

It provides:

- Enduring knowledge prepared by leading professors and distinguished practitioners
- Reference materials for high school and college students
- Diverse viewpoints on contentious issues
- Topics of conversation for every member of the family



# ICF Leadership and Conference Staff

---

## ICF Leadership



**Chung Hwan Kwak**  
Chairman,  
ICF Board of Directors



**Neil Albert Salonen**  
President, ICF



**Gordon L. Anderson**  
Secretary-General, ICF

## Conference Staff



**James A. Baughman**  
Secretary-General, ICUS



**Gregory Breland**  
Executive Director, ICUS



**Larry Orman**  
Treasurer



**Mary Jane Anderson**  
Registration/Tours  
*Ballroom Foyer*



**John E. Byrum**  
General Affairs  
*2nd Floor Office*



**Marguerite Felig**  
Air Travel  
*Sunflower Foyer*

**Conference Headquarters**  
Georgette Sobel  
*Acacia Room*

**Executive Office**  
Karin Wijeratne

**Photography**  
Ken Owens

**VIP Hospitality**  
Kenneth Gray  
Mija Han Baughman  
Irena Aksenova  
Ping Chen  
Keiko Breland

**Host Country Relations**  
Karl-Heinz Schulz

**Exhibits/Paragon House**  
Michael Giampaoli

**Video**  
Lloyd Eby  
Doris Gray

# ICF Representatives

## ARGENTINA

Thomas Field  
Rincan 342 1081 Capital Federal  
Buenos Aires

## AUSTRALIA

John Coles  
318 Burwood Road  
Burwood 2134  
New South Wales

## AUSTRIA

Maria Pammer  
Graf Seilern-Casse 22 1120  
Vienna

## BAHAMAS

Franklin Thompson  
No. 9 Dorchester  
Street P O Box N 9610  
Nassau

## BAHRAIN

Mohammed Ali Al-Khozai  
Directorate of Publications  
Ministry of Information  
P.O. Box 26613

## BANGLADESH

Katsumi Date  
PO Box 5069  
Dhaka-1205

## BARBADOS

P.K. Menon  
University of the West Indies  
Cave Hill Campus  
P.O.Box 64  
Bridgetown

## BOLIVIA

Haruhiko Iwasawa  
P.O. Box Casilla 4666  
La Paz

## BOTSWANA

Patrick Modise  
P.O. Box 20164  
Gaborone

## BRAZIL

Jose Francisco Squizzato Rua  
Galvao Bueno, 470 s/104  
cep. 01506-Liberdade  
Sao Paulo

## BULGARIA

Michaela Sergeeva  
Danishora Blc. 36, Entr.A,  
Apt.12  
Sofia 1233

## BURKINA FASO

Kenichi Ito  
01 B.P. 1255  
Ouagadougou 01  
Burkina Faso

## CAMEROON

Jean Augustin Ghomsi  
BP 11824  
Yaounde

## CANADA

Alan Wilding  
2500 Lawrence East  
Suite 201 Scarborough  
Ontario M1P 2R7

## CHILE

Kenjiro Aoki  
212 Marchant Pereira  
Providencia, Santiago

## CHINA (Taipei)

Hwang Ta-Chun  
Suite A, 4th Floor, 273, Sec. 3  
Roosevelt Road, Taipei

## COLOMBIA

Shigeyuki Nakai  
P.O. Box 17772  
Bogota

## COSTA RICA

Paul Stupple  
P.O. Box 7756  
1000-San Jose

## CYPRUS

Thomas Cromwell  
P.O. Box 30182  
10033 Athens

## CZECHOSLOVAKIA

Luba Ziaková  
Na Truhlarce 8  
180 00 Praha 8

## DENMARK

Thorkil Christensen  
Gl. Kongevej 27, 1 sal th.,  
DK-1610 Kobenhavn V

## DOMINICAN REPUBLIC

Cesar Regalado  
Apartado de Correos #1868  
Santo-Domingo

## ECUADOR

Getulio Santos  
P.O. Box 7284  
C.C. San José  
Quito

## EGYPT

Walter Gottesman  
28 Hassan Assem St., Apt. 17  
Zamalek, Cairo

## EL SALVADOR

Jiro Hor  
Apartado Postal 1084  
San Salvador

## FINLAND

Alan Smith Secretary-General  
P.O. Box 109  
SF-00171 Helsinki 17

## FRANCE

Didier Rias  
9-11 rue de Chatillon  
75014 Paris

## GABON

Hiroyuki Tosaka  
B.P. 1780  
Libreville

## GAMBIA

Michael Shea  
Private Mail Bag #16 G.P.O.  
Banjul

## GERMANY

Heinrich Weber  
Haus Koburg  
Diepensiepen 10  
D-4020 Mettmann Neandertal

## GHANA

Legon James Stinard  
P.O.Box 11626  
Accra - North

## GREECE

Marios Georgiokas  
P.O. Box 30182  
10033 Athens

## GUATEMALA

Fritz Schneider  
Apartado Postal 706  
Guatemala City

## GUINEA

Abdoulaye Diakite  
P. O. Box 1147  
Université de Conakry  
Conakry

## GUYANA

Sheila A. Chapman  
Lot 9 Croal Street  
Georgetown

## HAITI

Kazuto Nishijima  
P.O. Box 1503  
Port-Au-Prince

## HONDURAS

Junichi Hayashi  
Apartado Postal 1037  
Tegucigalpa

## HONG KONG

Jeremy Jordan  
9/F 293 Prince Edward Road  
Kowloon

## HUNGARY

Elisabeth Cook  
Szinyei Merse u. 26/IV/1  
1063 Budapest

## ICELAND

Halvard Iversen  
P.O. Box 7064  
127 Reykjavik

## INDIA

David McLackland  
C-52 South Extension II  
New Delhi 110 049

## INDONESIA

Margit Leising-Felzmann  
P.O. Box 2275  
Jakarta 10001

## ISRAEL

Masahiro Uruga  
P.O. Box 3965  
Jerusalem 91039

## ITALY

Antonio Ciacciarelli  
Via Bertini 12  
20154 Milano

## IVORY COAST

(Cote d'Ivoire)  
Robert Williamson  
08 B.P. 2041  
Abidjan 08

## JAMAICA

Lloyd Barnett  
15 Duke Street  
Kingston

## JAPAN

Akifumi Otani  
38 Townhouse 3-3 Sanban-cho  
Chiyoda-ku, Tokyo 102

## JORDAN

Toshihiro Tanaka  
P.O. Box 926010  
Amman

## KENYA

Kenneth Gray  
P.O. Box 46973  
Nairobi

## KOREA

Jin Suk Yang  
63-1, 3-Ka, Hangang-Ro  
Yongsan-Ku, Seoul 140-130

## LEBANON

Adel Jamati  
c/o MET, 4 Bahcat Ali Street  
Zamack, Cairo  
Egypt

■ Professors World Peace Academy national offices represent ICF in each country

# ICF Representatives

## LIBERIA

Gerald Coleman  
P.O.Box 2663  
Monrovia

## MALAYSIA

Chew Kien Boo  
56B Jalan SS 2/61  
47300 Petaling Jaya  
Selangor

## MALTA

Mary Ann Corlett  
P.O. Box 127  
Valletta

## MEXICO

Chris Olsen  
Apartado 7-1131  
D.F. Mexico 06700

## MOROCCO

Kunio Iwaoji  
Atun Mediterraneo Maroc,  
BP 166 Martil 37400  
Tetouan

## NAMIBIA

Brigitte Wakabayashi  
P.O. Box 11267  
Windhoek

## NEPAL

Rainer Schmiedel  
P.O. Box 1491  
Katmandu

## NETHERLANDS

Willem Koetsier  
Gooioord 137  
1103 CJ Amsterdam Z-O

## NEW ZEALAND

Hyung Keun Kim  
GPO Box 4533  
Auckland

## NICARAGUA

Michael Irwin  
P.O. Box 624  
Managua

## NIGERIA

Angeline Takeuchi  
P.O. Box 1185  
Surulere, Lagos

## NORWAY

Alf Monnesland  
P.O. Box 3045  
Elisenberg  
0207 Oslo 2

## PAKISTAN

Masashi Ishikawa  
House 5A, Street 60 F-7/4  
Islamabad

## PANAMA

Lucy Smith  
Aptdo. 6-2348  
Estafeta El Dorado  
Panama City

## PARAGUAY

Toru Nishiwaki  
14 de Mayo 2796  
c/16 Projectadas  
Asuncion

## PERU

Victor Lim  
Apartado Postal 14-0187  
Lima 14

## PHILIPPINES

Ulrich Volkel  
R&G Tirol Bldg. Rm. 307  
831 EDSA Cor. Sct. Albano  
Quezon City

## POLAND

Anna Czerwinska  
ul. Goralska 6/18 m. 24  
01-112 Warszawa

## PORTUGAL

Liberto Silva  
Rua da Artilharia Um  
39-40 Esq.  
Lisbon 2

## ROMANIA

Gottfried Hauthaler  
Calea Mosilor nr 209  
Bl.17, sc.2, et.3, ap.43  
Bucuresti, sector 2

## RUSSIA

Irena Aksanova  
Radisheva str. 5/16-10  
Tver 170000

## SENEGAL

Patricia Fleischman  
BP 6213  
Dakar

## SIERRA LEONE

Kiyoharu Nagatomo  
P.M.B. 336  
Freetown

## SOMALIA

Kenneth Gray  
P.O. Box 46973  
Nairobi, Kenya

## SOUTH AFRICA

John Brady  
P.O. Box 3505  
Johannesburg 2000

## SPAIN

Armando Lozano  
Edificio Espana  
Grupo 6, 18, 2 Gran Via, 88  
28013 Madrid

## SRI LANKA

David Rennie  
P.O. Box 2  
Nugegoda

## SUDAN

Ryoichi Oba  
P.O. Box 8029  
El-Amarat, Khartoum

## SURINAM

Hellen Haman  
c/o Dr. Sophie Redmondstraat  
P.O. Box 2259  
Paramaribo

## SWAZILAND

Anton Scherbl  
P.O. Box 958  
Mbabane

## SWEDEN

Jan-Peter Ostberg  
P.O. 5063  
S-102 42 Stockholm

## SWITZERLAND

Yves Robert Nidegger  
C.P. 286  
Boulevard Georges Favon 20  
1211 Geneve 11

## THAILAND

Eugenia Kagawa  
15 Sukhumvit S01 58  
P.O. Box 11-913  
Bangkok 10110

## TOGO

Isamu Matsuya  
B.P. 30041  
Lome

## TUNISIA

Abdullah Fara  
4A Immeuble Snit  
El Menzah 5B  
Tunis

## TURKEY

Yoshihiso Yamazaki  
P.K.-19 Bahariye Kadikoy  
Istanbul

## UNITED STATES OF AMERICA

Gordon L. Anderson  
#47  
2700 West University Avenue  
St. Paul, MN 55114

## UGANDA

Raymond Otika  
P.O. Box 7233  
Kampala

## UKRAINE

Alexandre N. Gontcharenko  
Academy of Sciences  
5 Leontovich St.  
252030 Kiev

## UNITED KINGDOM

Bryan Wijeratne  
44 Lancaster Gate  
London, W2 3NA

## URUGUAY

Steven Boyd  
19 de Abril 3460  
Montevideo

## VENEZUELA

Shoji Mitsuishi  
Apartado 50436  
Caracas 1050A

## YEMEN

Fritz Pieenburg  
P.O. Box 10076  
Sana'a

## YUGOSLAVIA

Rudolf Maier  
c/o Ljubisav M. Rakic  
Research Dept., Clinical Ctr.  
University of Belgrade  
School of Medicine  
2 Pasterova Street  
11000 Belgrade

## ZAIRE

Kayembe Kalamba  
B.P. 13202  
Kinshasa 1

## ZAMBIA

Robert Williamson  
P.O. Box 34369  
Lusaka

## ZIMBABWE

Toshiaki Sasada  
P.O. Box 5100  
Harare

## ICUS Publications

From the beginning, ICUS meetings have generated a large body of quality scholarship on significant issues. The existence and availability of this material has given rise to a substantial publishing program, now known as ICUS Publications. The center of the ICUS publishing program is ICUS Books. In keeping with the ICUS tradition, ICUS Books aims to advance human understanding by publishing manuscripts that approach scientific topics with a special regard for the broad ICUS themes of Science and Values and the Unity of Knowledge.

For ICUS I (1972) through ICUS XI (1982), ICUS Books consisted of volumes of the proceedings of the various ICUS meetings. Beginning with ICUS XII (1983), a Commemorative volume has been published from each ICUS, along with edited multi-authored volumes on particular themes. These edited theme volumes have often been the selected fruits of a particular committee from a particular ICUS. Because of this, the edited volumes tend to be inter-disciplinary

### ICUS Books

#### **Global 2000 Revisited: Man's Impact on Spaceship Earth**

*Edited by Hugh W. Ellsaesser*



Since the publication of Rachel Carson's popular book, *The Silent Spring* in 1962, the West has been assailed by prophesies of environmental calamity. The news media are widely prone to broadcasting the most dismal prospects for our future. *Global 2000 Revisited* reviews the popular 1970s study and asks the controversial questions: Are popular

notions on the environment based on sound science?; Has the National Academy of Science favored media hysteria at the expense of objectivity? This volume takes a hard look at current viewpoints on the state of the environment.

ISBN: 0-89226-100-5 (Hardbound)

ISBN: 0-89226-101-3 (Paperback)

432 pages, illustrations, index, Hardbound \$34.95,  
Paperback \$17.95

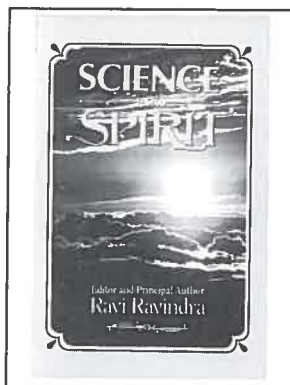
approaches to timely issues, addressing the overall subject of the particular volume from several scientific, philosophical, historical, cultural or religious perspectives.

In addition to conference proceedings, commemorative volumes and multi-authored edited volumes, ICUS Books also publishes single authored volumes. These single authored books are either enlargements of papers presented at ICUS, or solicited manuscripts on subjects or themes relating to the concerns of ICUS. ICUS Books actively seeks book projects and proposals that support or amplify the aims of ICUS and ICUS Books.

ICUS Publications has three goals for the future: to lessen the time of publication of ICUS books, to increase their quality, diversity, and appeal, and to expand and strengthen the marketing and distribution of all ICUS publications.

#### **Science and Spirit**

*Edited by Ravi Ravindra*



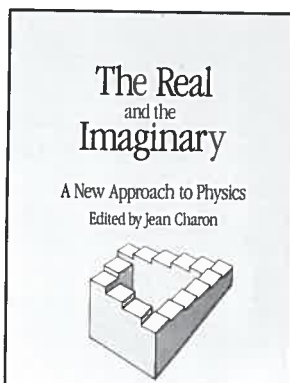
*Science and Spirit* uses a new age approach as it addresses many issues including the environmental emergency facing the planet today. Other topics include the discussion of developing a new, universal world view and the need for all societies to consider the importance of art, culture and religions in other societies. The possibility that the acceptance

of western science and technology by non-Western nations may philosophically Westernize and marginalize them into a planetary culture is explored and discussed as well. This volume presents many probing and insightful discussions, including the spiritual-moral illuminations held by the editor.

ISBN: 0-89226-082-3

433 pages, index, Paperback \$14.95

## **The Real and the Imaginary: A New Approach to Physics** *Edited by Jean Charon*

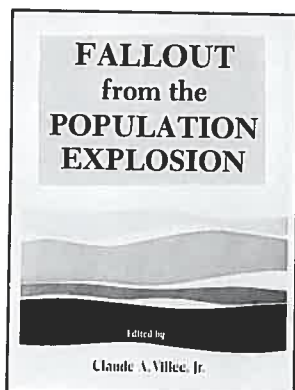


The interaction between mind and reality has been a central field of investigation from the time of the Ancient Greeks. What role does the imaginary have in such "hard" sciences as physics and biology? How does the imaginary interact with the "objectivity" of science? In this book, leading scholars take a focused look at these important topics.

Created from Committee VI of ICUS XIII.  
ISBN: 089226-027-0

206 pages, Hardbound \$24.95.

## **Fallout from the Population Explosion** *Edited by Claude A. Villee, Jr.*



Population control has been a political concern for several millennia. Both Plato and Aristotle discussed population size in their political theories. In the 1960's the catastrophe theory came into fashion: we were warned that if we didn't do something about the expanding human race then each of us might soon be confined to one square yard of earth.

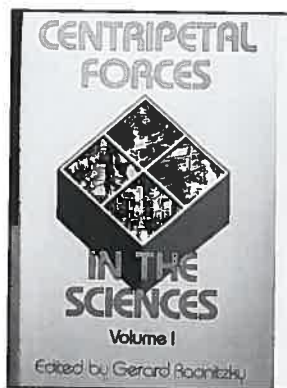
Since then the issue seems to have dropped from public consciousness. Claude Villee has brought together a number of papers on this topic from several ICUS conferences.

*Presents a balanced picture of the situations as it exists today and, importantly, interweaves population matters in with other social issues... I like especially the chapters on health care, ethical aspects, environment and conservation, and aging.*

—Professor Donald Bogue, Dept. of Sociology,  
University of Chicago  
ISBN: 0-89226-028-9

264 pages, Hardbound \$24.95.

## **Centripetal Forces in the Sciences, Volume 1** *Edited by Gerard Radnitzky*



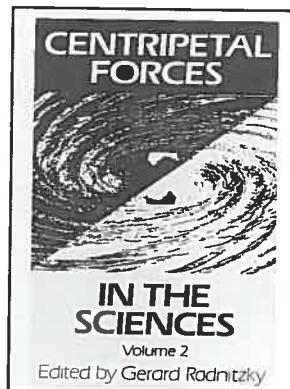
The primary aim of basic science is to improve our knowledge of the world and of man as a part of nature. But specialization in science is unavoidable. This leads to a compartmentalization of science and, at the level of the individual, to a limitation of competence and knowledge to an increasingly narrow field.

These books present a number of approaches to the unity of the sciences. Volume One consists of four sections. The first covers the idea of "Unity of Science" in intellectual history. The second presents the unifying potential of the evolutionary perspective. The third considers the economic approach, and the fourth discusses unity in the social sciences. Created from Committee I of ICUS XII.

ISBN: 0-89226-047-5

429 pages, index, Hardbound \$22.95.

## **Centripetal Forces in the Sciences, Volume 2** *Edited by Gerard Radnitzky.*



Volume Two contains four parts. Part one is concerned with problems of the unification of science and of reductionism in the light of methodology of research and of science policy. Part two discusses reduction and emergence in physics and chemistry. Part three presents reduction and explanation in biology, the social sciences and history, and part four is concerned

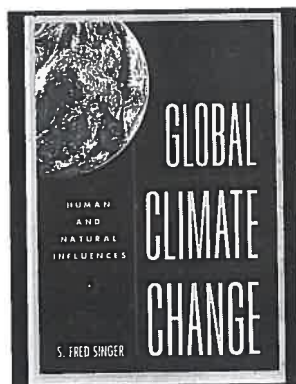
with the reductionism of the sociological turn in the philosophy of science. Created from Committee I of ICUS XIII.

ISBN: 0-89226-048-3

358 pages, illustrated, index, Hardbound \$29.95.

## Global Climate Change: Human and Natural Influences

*Edited by S. Fred Singer*



Many people have become increasingly concerned with mankind's future on this planet. This subject has profound philosophical and scientific aspects and is of international concern. This book focuses on three categories of problems: problems that arise as inadvertent by-products of human activities, problems that arise as undesirable long-range conse-

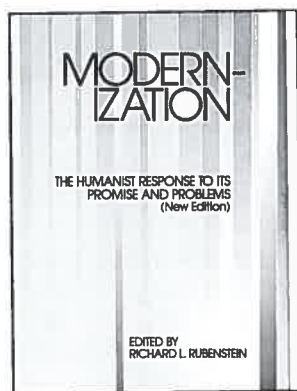
quences of purposeful modifications of the environment, and problems that arise from global environmental issues that can be called "natural" in that they are not controlled by man. Created from Committee VI of ICUS XII.

ISBN: 0-89226-071-8

424 pages, illustrated, Hardbound \$34.95, Paperback \$17.95.

## Modernization: The Humanist Response to Its Promise and Problems

*Edited by Richard Rubenstein.*



This collection of essays examines aspects of the modernization process and its religious, social, environmental, and political consequences. The authors are all humanists in the sense that they are fundamentally concerned with the quest for values by which men and women can sustain themselves, and they come from a wide variety of national, reli-

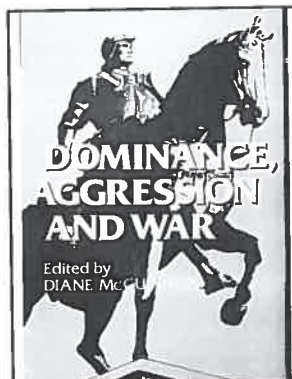
gious, cultural, and professional backgrounds. Created from Committee on Religion and Philosophy of ICUS VI and ICUS VII.

ISBN: 0-89226-031-9

360 pages, Paperback \$14.95.

## Dominance, Aggression and War

*Edited by Diane McGuinness*



The puzzle of human warfare is that, in contrast to rage, war is premeditated and prolonged. This book brings together the contributions of a number of anthropologists, biologists, sociologists and psychologists on the question of internal aggression. Topics covered include the biological basis of dominance and aggression, animal intelligence and

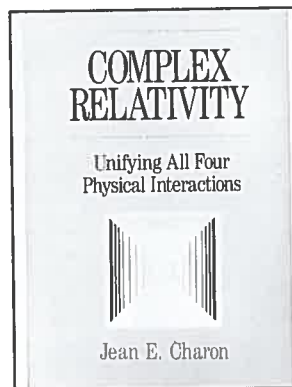
human instinct, nuclear weapons and the control of aggression, the social organization, rank and aggression among subspecies of chimpanzees, and human dominance systems. Created from Committee V of ICUS XII.

ISBN: 0-89226-035-1

328 pages, Hardbound \$24.95

## Complex Relativity

*By Jean Charon*



The physics of our century has made great strides toward a unified representation of the universe. Most of this progress is a direct consequence of physicists' constantly improving understanding of the complexity of space and time. In this important book, the French physicist Jean Charon proposes a unification scheme called Complex Relativity. This ap-

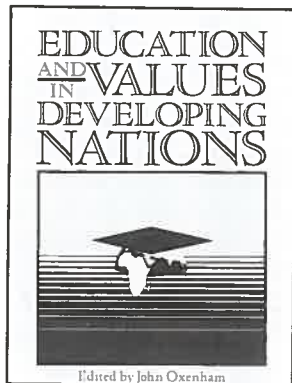
proach assumes that ALL momentum-energy (action) of the universe is located in the Imaginary part of the total universe. Like Supergravity and Superstring theories, Complex Relativity also asserts the existence of "invisible" dimensions.

ISBN: 0-89226-057-2

176 pages, illustrated, Hardbound \$27.95

## Education and Values in Developing Nations

*Edited by John Oxenham*



Modernization is a powerful concept for motivating and sharing social and economic policy, but the idea has been given a variety of interpretations and content, so the possible common elements of these interpretations and possible incompatibilities remains to be clarified. There is a wide agreement that certain values are necessary to create a climate in which

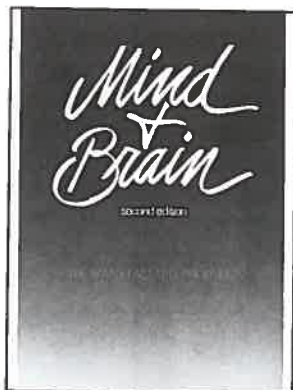
modernization can be pursued, and that these values necessary for modernization are to be fostered and encouraged through education. This book focuses on societal values underlying successful modernization, paying particular attention to the content, philosophy, and processes promoted by educational institutions in developing countries. Created from Committee IV of ICUS XIV.

ISBN: 0-89226-050-5

*170 pages, charts and index, Hardbound \$22.95*

## Mind and Brain: The Many-Faceted Problems

*Edited by Sir John Eccles*



Are mind and brain one and the same? How and where does mind or consciousness originate, and does it exist apart from the brain? Sir John Eccles, recipient of the Nobel Prize in 1963 for his work in nerve impulse transmission, has brought together in the volume a collection of important papers on these topics from numerous ICUS sessions.

*The great advantage and attraction of these essays is their inter-disciplinary character with a willingness to consider other dimensions of the subject. The book is of value for all who are concerned with the mind or the brain, whatever their discipline.*

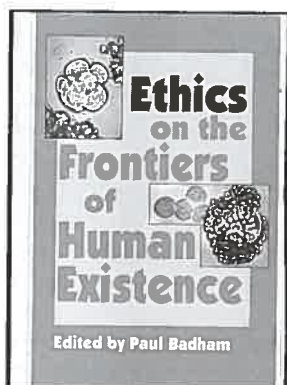
—International Social Sciences Review

ISBN: 0-89226-032-7

*424 pages, illustrated, Paperback \$14.95*

## Ethics on the Frontiers of Human Existence

*Edited by Paul Badham*



Science, through today's medical technology, has provided humankind the tools to overcome infertility and prolong human life; however, these new capabilities throw open a number of ethical issues. In vitro fertilization gives hope to childless couples, but what, if any, are the appropriate limits of care for the terminally ill? Fundamental questions

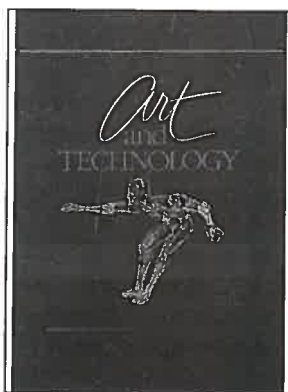
about the value and quality of human life are explored by eleven noted scholars. Their articles include: "Birth Control and the Value of Human Life," "The Right to Die," "Hard Choices: Ethical Questions Raised by the Birth of Handicapped Infants," and "Justified Warfare and the Relative Value of Human Life."

ISBN: 0-89226-125-0

*380 pages, illustrations, index, photos, Hardbound \$34.95, Paperback \$17.95*

## Art and Technology

*Edited by René Berger and Lloyd Eby*



The development and use of new technologies in the arts, especially the computer, has changed the situation of the arts. Old definitions and understandings of arts may no longer apply. This book presents a collection of articles on the art-technology interface as it affects such arts as cinema, city planning, music, television, the comics, computer art, vid-

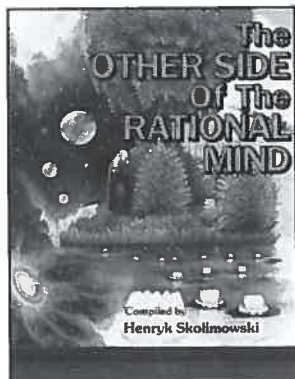
eo art, and art in extraterrestrial communities. Created from Committee III of ICUS XII.

ISBN: 0-89226-029-7

*468 pages, photos and illustrations, Hardbound, Special price \$19.95.*

## The Other Side of the Rational Mind

Compiled by Henryk Skolimowski



Scientists and scholars are often regarded as merely rationalists or logicians. But here, the more than thirty eminent contributors reveal the artistic, poetic aspects of their nature. To fully understand and appreciate the human condition we need to respect the emotional, the tender, the compassionate, the unutterable. That is what art in its varied forms attempts to

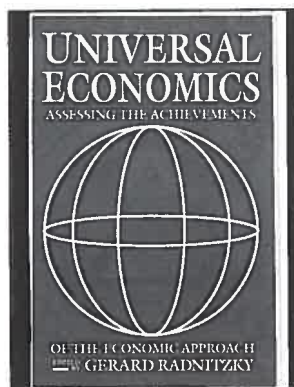
do. With both literary and artistic pieces, this lavishly illustrated volume provides a glimpse into the hearts of those more commonly known for their hard intellect—a brief encounter with “the other side of the rational mind.”

ISBN: 0-89226-064-5

128 pages, illustrated, Paperback \$14.95.

## Universal Economics

Edited by Gerard Radnitzky



The “economic approach” to analyzing human conduct has become an increasingly important influence on scholars and scientists in recent decades. A vast field of study has developed which has included explanations of history, international relations and a variety of social phenomena. This approach has gained impressive results in some

areas, but has drawn sharp criticism from some quarters and has even been labeled “imperialist” in nature. Led by world-renowned economist Gerard Radnitzky, the contributors assess the achievements of the economic approach and appraise the various criticisms leveled against it.

ISBN: 0-89226-102-1 (Hardbound)

ISBN: 0-89226-103-X (Paperback)

448 pages, illustrations, Hardbound \$34.95, Paperback \$19.95.

## Theoretical Empiricism

Edited by Herman Wold



Human knowledge is a loosely knit network of scientific models. *Theoretical Empiricism* examines the nature of scientific models and the process of model building. Prepared by scholars in mathematics, statistics, economics, psychology, and other fields, the articles in this volume explore the relevance of statistics in the development of models,

areas of controversy and consensus in the scientific community and issues relating to the unity of science. Herman Wold was a professor of statistics at the University of Uppsala in Sweden. Since 1961 he was a member of the Royal Swedish Academy of Sciences. ISBN: 0-89226-055-6

331 pages, index, Hardbound \$34.95

## Organization and Change in Complex Systems

Edited by Marcelo Alonso



A molecule, a human being, a nation, and a galaxy are all complex systems, each with its own interacting components. This interdisciplinary study examines the processes and changes that occur within complex systems. The emergence of systems in the universe since the Big Bang (such systems as nuclei, atoms, molecules, stars, and galaxies); the

origins of highly structured, self-replicating systems (living beings); economic and social structures among living beings; and the role of information and technology in creating new kinds of structures and complex systems are explored.

ISBN: 0-89226-059-9

416 pages, Index, Hardbound \$34.95

# ICUS Publications

## The ICUS Proceedings Series

### Modern Science and Moral Values

ICUS II, Tokyo, 1973

Hardbound only, \$29.95

### Science and Absolute Values

ICUS III, London, 1974

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95.

### The Centrality of Science and Absolute Values

ICUS IV, New York, 1975

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### The Search for Absolute Values:

Harmony Among the Sciences  
ICUS V, Washington, D.C., 1976.

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### The Search for Absolute Values in a Changing World

ICUS VI, San Francisco, 1977

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### The Re-Evaluation of Existing Values and the Search for Absolute Values

ICUS VII, Boston, 1978

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### The Responsibility of the Academic Community in the Search for Absolute Values

ICUS VIII, Los Angeles, 1979.

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### Absolute Values and the Search for the Peace of Mankind

ICUS IX, Miami Beach, 1980.

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### The Search for Absolute Values and the Creation of the New World

ICUS X, Seoul, Korea, 1981

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### Absolute Values and the Creation of the New World

ICUS XI, Philadelphia, 1982.

Two Volume Set Hard, \$39.95;  
Paperback, \$29.95

### Absolute Values and the Reassessment of the Contemporary World.

ICUS XVII, Los Angeles, 1988.

2 Vol. Set Paperback only, \$29.95

## Founder's Addresses Volume:

### Science and Absolute Values: Eleven Founder's Addresses by Sun Myung Moon

Hardbound, \$9.95  
Paperback, \$5.95

## The ICUS Commemorative Volume Series

### Absolute Values and the New Cultural Revolution, 1983

ICUS XII, Chicago

Hardbound, \$29.95  
Paperback, \$19.95

### Absolute Values and the New Cultural Revolution, 1984

ICUS XIII, Washington, D.C.

Hardbound only, \$29.95

### Absolute Values and the New Cultural Revolution, 1985

ICUS XIV, Houston

Hardbound only, \$29.95

### Absolute Values and the New Cultural Revolution, 1986

ICUS XV, Washington, D.C.

Hardbound only, \$29.95

### Absolute Values and the Reassessment of the Contemporary World, 1987

ICUS XVI, Atlanta.

Hardbound only, \$29.95

### Absolute Values and the Reassessment of the Contemporary World, 1991

ICUS XVIII, Seoul

Hardbound only, \$29.95

### Absolute Values and the New World Order, 1992

ICUS XIX, Seoul

Hardbound only, \$29.95





Phone \_\_\_\_\_

☐ Check or Money Order    ☐ Visa    ☐ Master Card    ☐ American Express

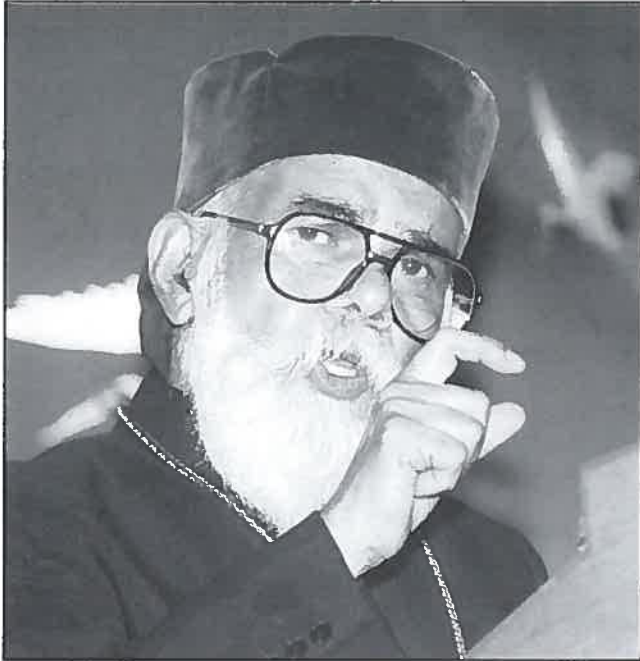
Signature \_\_\_\_\_

**Our Mailing Address:**

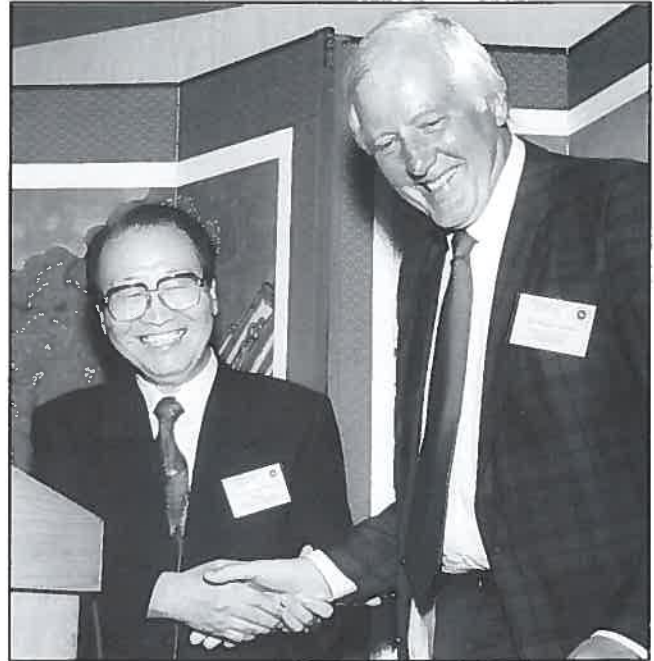
55

## Scenes from ICUS XIX (1992)

---



Paulos Mar Gregorios gives his Plenary Address, "The Coming Civilization Shift."



The Reverend Chung Hwan Kwak congratulates Dr. Gerholm, Conference Chair, at the Closing Plenary.

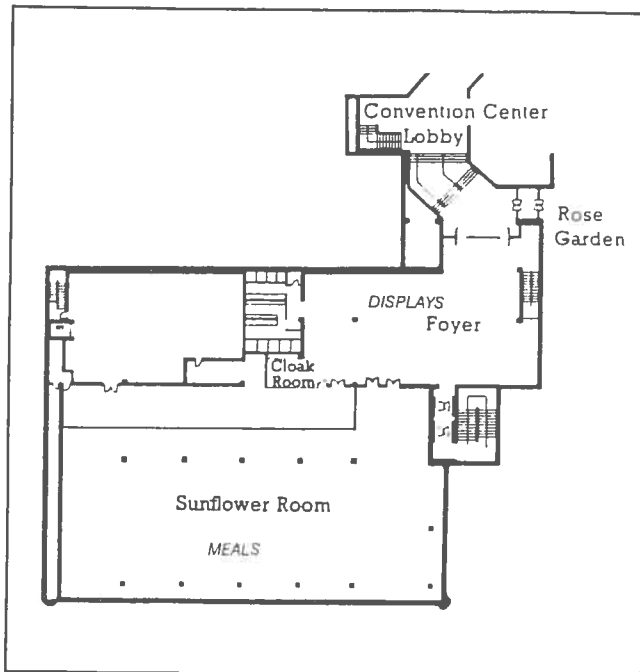


The Reverend Chung Hwan Kwak greets Paulos Mar Gregorios at the Opening Reception.

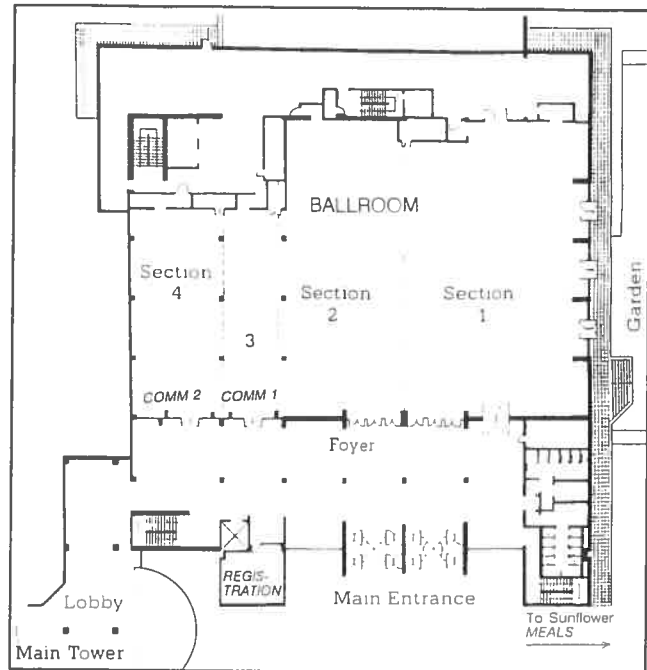


Head Table for the Farewell Banquet, hosted by The Reverend and Mrs. Moon.

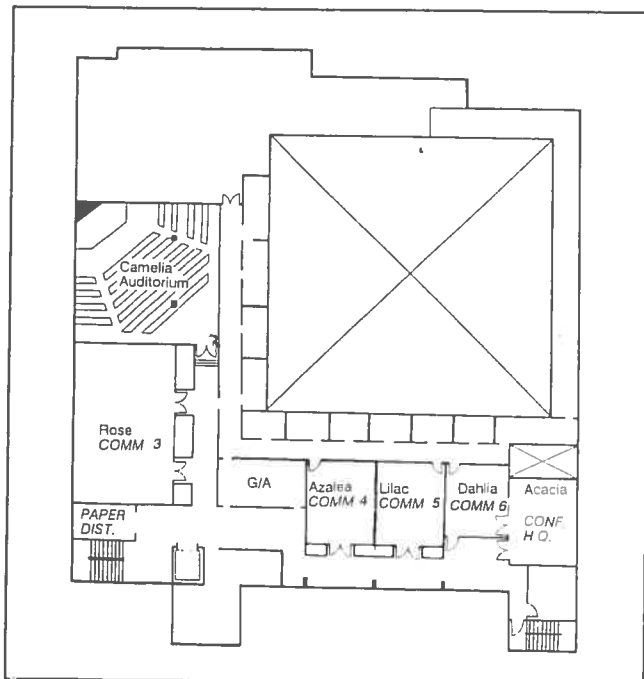
# Floor Plans of Hotel



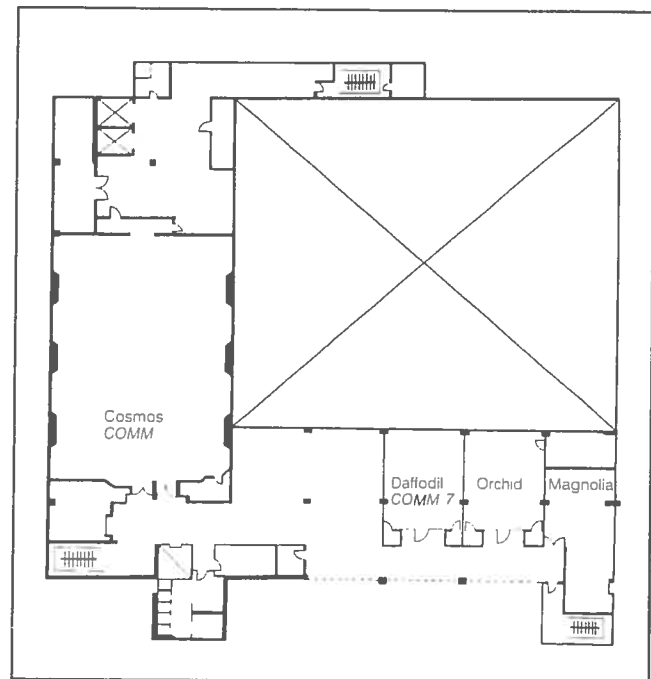
Sunflower Room and Foyer, Basement Level



Conference Center Ballrooms, Main Floor



Conference Center Meeting Rooms, 2nd Floor



Conference Center Meeting Rooms, 3rd Floor

