


The World of Learning 1986

The standard and authoritative guide to
educational, scientific and cultural institutions
all over the world



The World of Learning 1986

THIRTY-SIXTH EDITION

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FOREWORD

We have once again tried to ensure that we include the latest possible information concerning entries in *THE WORLD OF LEARNING*. Every year a folder containing the previous year's proof is sent to each entry; continuous research in the world press and educational journals, as well as contact with official sources all over the world, supplements this method of revision. New entries have been added throughout the book, including about 80 universities and other institutions of higher education. We welcome information and suggestions from users of the book, concerning either existing entries or possible new material.

We are always grateful to those individuals and organizations who help us to bring our information up to date with their prompt replies. We particularly emphasize the necessity for revised entries to be returned to us without delay, since important material may otherwise be held over until a later edition. Only by maintaining a strict timetable can the regular production of such a large work as *THE WORLD OF LEARNING* be assured.

In co-operation with IFLA we invite all institutions in the book to indicate by the sign † those of their periodical publications which are available for exchange. We ask readers who are interested in the exchange of publications to communicate directly with the institution concerned, and not with us.

We should like to point out that in the sections on Universities and Colleges our classification usually follows the practice of the country concerned. This in no way implies any official evaluation on our part. We suggest that readers who are interested in the matter of equivalences of institutions, degrees or diplomas, should correspond directly with the institution concerned, or with the national or international bodies set up for this purpose.

November 1985

ABBREVIATIONS

AAAS	American Association for the Advancement of Science	Colo	Colorado
Acad.	Academy; Academician	Cmdr	Commander
ACLS	American Council of Learned Societies	Comm.	Commission
ACT	Australian Capital Territory	Commr	Commissioner
Admin.	Administrative, Administration	Conf.	Conference
AFRC	Agricultural and Food Research Council	Conn.	Connecticut
AIA	American Institute of Architects	Corpn	Corporation
AICHe	American Institute of Chemical Engineers	Corresp.	Correspondent, Corresponding
Ala	Alabama	CP	Case postale; Caixa postal
ALECSO	Arab League Educational, Cultural and Scientific Organization	Cr	Contador
Alta	Alberta	CSIRO	Commonwealth Scientific and Industrial Research Association
AP	Andhra Pradesh	CSSF	Confédération des Sociétés Scientifiques Françaises
Ariz.	Arizona	CTFT	Centre Technique Forestier Tropical
Ark.	Arkansas	Cttee	Committee
ASCE	American Society of Civil Engineers	DC	District of Columbia
Asscn	Association	Del.	Delegate, delegation
Assoc.	Associate	Dela.	Delaware
Asst	Assistant	Dept	Department
ATC	Art Teacher's Certificate	DES	Department of Education and Science
Atty	Attorney	Dir	Director
AUPELF	Association des Universités Partiellement ou Entièrement de Langue Française	Dr	Doctor
Avv.	Avvocato (Advocate)	DSIR	Department of Scientific and Industrial Research
BA	Bachelor of Arts	E	East; Eastern
BC	British Columbia	ECOSOC	Economic and Social Council (UN)
BILD	Bureau International de Liaison et de Documentation	ECSC	European Coal and Steel Community
Bldg	Building	EEC	European Economic Community
Blvd	Boulevard	ENEA	Comitato Nazionale per la ricerca e lo sviluppo dell'Energia Nucleare e delle Energie Alternative
BMA	British Medical Association	ESCAP	Economic and Social Commission for Asia and the Pacific
Br.	Branch	ESRC	Economic and Social Research Council
BRGM	Bureau de Recherches Géologiques et Minières	Est.	Established
Bro.	Brother	ETH	Eidgenössische Technische Hochschule
BSc	Bachelor of Science	Exec.	Executive
c.	circa (approximately)	f.	founded
CAE	College of Advanced Education	FAO	Food and Agriculture Organization
Calif.	California	Fed.	Federation, Federal
CAR	Central African Republic	Ga	Georgia
CEA	Commissariat à l'Energie Atomique	Gen.	General
CERN	European Organization for Nuclear Research	GERDAT	Groupeement d'Etudes et de Recherches pour le Développement de l'Agronomie Tropicale
Chair.	Chairman	Gov.	Governor
CNAA	Council for National Academic Awards	Govt	Government
CNR	Consiglio Nazionale delle Ricerche		
CNRS	Centre National de la Recherche Scientifique		
Co	Company; County		

ABBREVIATIONS

HQ	Headquarters	IUNS	International Union of Nutritional Sciences
HE	His Eminence; His (Her) Excellency	IUPAB	International Union of Pure and Applied Biophysics
HM	His (Her) Majesty	IUPAC	International Union of Pure and Applied Chemistry
HND	Higher National Diploma	IUPAP	International Union of Pure and Applied Physics
Hon.	Honourable; Honorary	IUPHAR	International Union of Pharmacology
HRH	His (Her) Royal Highness	IUPS	International Union of Physiological Sciences
Ia	Iowa	IUTAM	International Union of Theoretical and Applied Mechanics
IAEA	International Atomic Energy Agency	Jl	Jalan (Indonesia, Malaysia)
IAU	International Astronomical Union	Kan.	Kansas
IBE	International Bureau of Education	Ky	Kentucky
ICAR	Indian Council of Agricultural Research	La	Louisiana
ICPHS	International Council for Philosophy and Humanistic Studies	m.	million
ICSU	International Council of Scientific Unions	MA	Master of Arts
Ida.	Idaho	MAFF	Ministry of Agriculture, Fisheries and Food
IEMVT	Institut d'Élevage et de Médecine Vétérinaire des Pays Tropicaux	Man.	Manager, Managing; Manitoba
IFAN	Institut Fondamental d'Afrique Noire	Mass	Massachusetts
IFLA	International Federation of Library Associations and Institutions	Md	Maryland
IGU	International Geographical Union	Me	Maine
IICA	Instituto Interamericano de Cooperación para la Agricultura	Mem(s)	Member(s)
Ill.	Illinois	Mgr	Monseigneur; Monsignor; Magister (Master's degree)
ILO	International Labour Organisation	Mich.	Michigan
IMU	International Mathematical Union	Min.	Minister; Ministry
Inc.	Incorporated	Minn.	Minnesota
Ind.	Indiana; Independent	Miss.	Mississippi
INFN	Istituto Nazionale di Fisica Nucleare	MIT	Massachusetts Institute of Technology
INRA	Institut National de la Recherche Agronomique	Mo.	Missouri
Instn	Institution	Mont.	Montana
Int.	International	MRC	Medical Research Council
IRAT	Institut de Recherches Agronomiques Tropicales et des Cultures Vivrières	MS	Master of Science
IRC	Institut de Recherches sur le Caoutchouc	MSc	Master of Science
IRCC	Institut de Recherches du Café, du Cacao et autres plantes stimulantes	N	North; Northern
IRCT	Institut de Recherches du Coton et des Textiles Exotiques	NASA	National Aeronautics and Space Administration
IRFA	Institut de Recherches sur les Fruits et Agrumes	Nat.	National
IRHO	Institut de Recherches pour les Huiles et Oléagineux	NB	New Brunswick
ISME	International Society for Music Education	NC	North Carolina
IUB	International Union of Biochemistry	ND	North Dakota
IUBS	International Union of Biological Sciences	NDD	National Diploma in Dairying
IUCr	International Union of Crystallography	NERC	Natural Environment Research Council
IUGG	International Union of Geodesy and Geophysics	Neb.	Nebraska
IUGS	International Union of Geological Sciences	Nev.	Nevada
IUHPS	International Union of the History and Philosophy of Science	NH	New Hampshire
IUIS	International Union of Immunological Societies	NJ	New Jersey
IUMS	International Union of Microbiological Societies	NM	New Mexico
		NS	Nova Scotia
		NSW	New South Wales
		NUI	National University of Ireland

ABBREVIATIONS

NY	New York	S Dak.	South Dakota
NZ	New Zealand	SDI	Selective Dissemination of Information
		Sec.	Secretary
O.	Ohio	SERC	Science and Engineering Research Council
OAS	Organization of American States	SIPRI	Stockholm International Peace Research Institute
OECD	Organisation for Economic Co-operation and Development	Soc.	Society
OFS	Orange Free State	SRR	Socialist Republic of Romania
Okla	Oklahoma	SSR	Soviet Socialist Republic
On.	Onorevole (Italian)		
ONERA	Office National d'Etudes et de Recherches Aérospatiales	Tenn.	Tennessee
Ont.	Ontario	Tex.	Texas
Ore.	Oregon		
OU	Open University	UGC	University Grants Committee
		UK	United Kingdom
Pa	Pennsylvania	UN	United Nations
PCSIR	Pakistan Council of Scientific and Industrial Research	UNDP	United Nations Development Programme
PEI	Prince Edward Island	UNESCO	United Nations Educational, Scientific and Cultural Organization
PEN	Poets, Playwrights, Essayists, Editors and Novelists (Club)	UNICEF	United Nations International Children's Emergency Fund
PhD	Doctor of Philosophy	Univ.	University
PMB	Private Mail Bag	UNU	United Nations University
POB	Post Office Box	UNWRA	United Nations Relief and Works Agency
PQ	Province of Quebec	UP	Uttar Pradesh (United Provinces)
Pres.	President	URSI	Union Radio-Scientifique Internationale
Prof.	Professor	USA	United States of America
Publ(s)	Publication(s)	USIS	United States Information Service
		USSR	Union of Soviet Socialist Republics
q.v.	quod vide (which see)		
Rep.	Representative; Represented	Va	Virginia
retd	retired	Vols	Volumes
Rev.	Reverend	Vt	Vermont
RI	Rhode Island		
RIBA	Royal Institute of British Architects	W	West; Western
RSFSR	Russian Soviet Federative Socialist Republic	WA	Western Australia
Rt Hon.	Right Honourable	Wash.	Washington (State)
Rt Rev.	Right Reverend	WHO	World Health Organization
		Wis.	Wisconsin
S	South; Southern	W Va	West Virginia
SA	South Africa(n); South Australia	Wyo.	Wyoming
SC	South Carolina	†	indicates a periodical title available for exchange

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INTERNATIONAL SECTION

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INTERNATIONAL

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)

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Telephone: 577-16-10

Telex: 270002, 204461

UNESCO was established in 1946 'for the purpose of advancing, through the educational, scientific and cultural relations of the peoples of the world, the objectives of international peace and the common welfare of mankind'.

Functions

UNESCO's activities, which take three main forms as outlined below, are funded through a regular budget provided by member states and also through other sources, particularly the UNDP.

International Intellectual Co-operation

UNESCO assists the interchange of experience, knowledge and ideas through a world network of specialists. Apart from the work of its professional staff, UNESCO co-operates regularly with the national associations and international federations of scientists, artists, writers and educators, some of which it helped to establish.

UNESCO convenes conferences and meetings, and co-ordinates international scientific efforts; it helps to standardize procedures of documentation and provides clearing house services; it offers fellowships; and it publishes a wide range of specialized works, including source books and works of reference.

UNESCO promotes various international agreements, including the International Copyright Convention and the World Cultural and National Heritage Convention, which member states are invited to accept.

Operational Assistance

UNESCO has established missions which advise governments, particularly in the developing member countries, in the planning of projects; and it appoints experts to assist in carrying them out. The projects are concerned with the teaching of functional literacy to workers in development undertakings; teacher training; establishing of libraries and documentation centres; provision of training for journalists, radio, television and film workers; improvement of scientific and technical education; training of planners in cultural development; and the international exchange of persons and information.

Promotion of Peace

UNESCO organizes various research efforts on racial problems, and is particularly concerned with prevention of discrimination in education, and improving access for women to education. It also promotes studies and

research on conflicts and peace, violence and obstacles to disarmament, and the role of international law and organizations in building peace. It is stressed that human rights, peace and disarmament cannot be dealt with separately, as the observance of human rights is a prerequisite to peace and vice versa.

Member States

(August 1985)

Afghanistan
Albania
Algeria
Angola
Antigua and Barbuda
Argentina
Australia
Austria
Bahamas
Bahrain
Bangladesh
Barbados
Belgium
Belize
Benin
Bhutan
Bolivia
Botswana
Brazil
Bulgaria
Burkina Faso
Burma
Burundi
Byelorussian SSR
Cameroon
Canada
Cape Verde
Central African Republic
Chad
Chile
China, People's Republic
Colombia
Comoros
Congo People's Republic
Costa Rica
Cuba
Cyprus
Czechoslovakia
Denmark
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Ethiopia
Fiji
Finland
France
Gabon
Gambia
German Democratic Republic
Germany, Federal Republic

Ghana
Greece
Grenada
Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Honduras
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Ivory Coast
Jamaica
Japan
Jordan
Kampuchea
Kenya
Korea, Democratic People's Republic
Korea, Republic
Kuwait
Laos
Lebanon
Lesotho
Liberia
Libya
Luxembourg
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Mauritania
Mauritius
Mexico
Monaco
Mongolian People's Republic
Morocco
Mozambique
Namibia
Nepal
Netherlands
New Zealand
Nicaragua
Niger
Nigeria
Norway
Oman
Pakistan
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Portugal
Qatar
Romania
Rwanda

INTERNATIONAL

St Christopher and Nevis
St Lucia
St Vincent and the Grenadines
Samoa
San Marino
São Tomé and Príncipe
Saudi Arabia
Senegal
Seychelles
Sierra Leone
Singapore
Somalia
Spain
Sri Lanka
Sudan
Suriname
Swaziland
Sweden
Switzerland
Syrian Arab Republic
Tanzania
Thailand
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkey
Uganda
Ukrainian SSR
USSR
United Arab Emirates
United Kingdom
Uruguay
Venezuela
Viet-Nam
Yemen Arab Republic
Yemen, People's Democratic Republic
Yugoslavia
Zaire
Zambia
Zimbabwe

Organization

GENERAL CONFERENCE

The supreme governing body of the Organization. Meets in ordinary session once in two years and is composed of representatives of the member states. 23rd session: 1985.

President: SAÏD M. TELL (Jordan).

EXECUTIVE BOARD

Consists of 45 members. Prepares the programme to be submitted to the Conference and supervises its execution. Meets twice or sometimes three times a year.

SECRETARIAT

Director-General: AMADOU MAHTAR M'BOW (Senegal).

Director of the Executive Office: CHIKH BEKRI (Algeria).

The Director-General has an international staff of some 3,300 civil servants. Of the professional staff (specialists in various disciplines and administrators), about two-thirds are away from headquarters on technical assistance missions to member states.

Assistant Directors-General:

Studies and Programming: J. KNAPP (France).

Education: SIOMA TANGUIANE (USSR).

Natural Sciences and their Application to Development: ABDUL-RAZZAK KADDOURA (Syria).

Social Sciences and their Applications: RODOLFO STAVENHAGEN (Mexico).

Culture and Communication: MAKAMINAN MAKAGIANSAR (Indonesia).

Co-operation for Development and External Relations: DRAGOLJUB NAJMAN (Yugoslavia).
Programme Support: HENRI LOPES (Congo).

CO-OPERATING BODIES

In accordance with UNESCO's constitution, national commissions have been set up in most member states. These help to integrate work within the member states and the work of UNESCO.

UNESCO LIAISON OFFICES

Office for Liaison with United Nations: Room 2401, UN Bldg, 42nd St at First Ave, New York, NY 10017, USA.

UNESCO Liaison Office in Geneva: Bureau Bocage 4, Palais des Nations, CH-1211 Geneva, Switzerland.

UNESCO Liaison Office in Washington: 918 16th St, NW, Suite 201, Washington, DC 20006, USA.

UNESCO Liaison Office for Ethiopia and with the Economic Commission for Africa (ECA) and the Organization of African Unity (OAU): POB 1177, Addis Ababa, Ethiopia.

UNESCO Liaison Office for the Safeguarding of Venice: Palazzo Reale, Piazza San Marco 63, 30124 Venice, Italy.

UNESCO EDUCATION OFFICES

Regional Office for Education in Latin America and the Caribbean: POB 3187, Santiago, Chile.

Regional Office for Education in Asia (including the Asian Centre for Educational Innovation for Development): POB 1425, Bangkok 11, Thailand.

Regional Office for Education in Africa: BP 3311, Dakar, Senegal.

Regional Office for Education in the Arab States: c/o UNESCO, 7 place de Fontenoy, 75700 Paris, France.

Regional Office for Education in the South Pacific: Apia, Western Samoa.

Arab States Regional Centre for Functional Literacy in Rural Areas (ASFEC): Sirs-El-Layan, Menoufia, Egypt.

European Centre for Higher Education (CEPES): 39 rue Stirbei, Voda, Bucharest, Romania.

International Bureau of Education (see below).

UNESCO Regional Centre for Higher Education in Latin America and the Caribbean (CRESALC): Altos de Sebucan, Avda Los Chorros/Cruce, Calle Acueducto, Edificio Asovincar, El Sebucan, Apdo 62090, Caracas 106, Venezuela.

International Institute for Adult Literacy Methods (IIALM): POB 1555, Teheran, Iran.

International Institute for Educational Planning (IIEP) (see below).

UNESCO SCIENCE AND TECHNOLOGY OFFICES

Regional Office for Science and Technology for Africa: POB 30592, Nairobi, Kenya.

Regional Office for Science and Technology for Latin America and the Caribbean: 1320 Bulevar Artigas, Apdo de Correos 859, Montevideo, Uruguay.

Regional Office for Science and Technology for the Arab States: c/o UNESCO Secre-

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tariat, 7 place de Fontenoy, 75700 Paris, France.

Regional Office for Science and Technology for South and Central Asia: UNESCO House, 17 Jor Bagh, New Delhi 110003, India.

Regional Office for Science and Technology for South-East Asia: UN Bldg (2nd Floor), Jl. Thamrin 14, Tromol Pos 273/JKT, Jakarta, Indonesia.

UNESCO CULTURE AND COMMUNICATION OFFICES

Regional Office for Culture in Latin America and the Caribbean: Calzada 551, esq. a D, Vedado, Apdo 4158, Havana, Cuba.

Regional Office for Book Development in Asia and the Pacific: POB 8950, Karachi, Pakistan.

Regional Centre for Book Development in Africa South of the Sahara (CREPLA): POB 1646, Yaoundé, Cameroon.

Sub-Regional Adviser for Communication in Latin America: Edificio Francisco de Orellana, Oficina 701, Avda Orellana 1791 y 10 de Agosto, Quito, Ecuador.

Sub-Regional Adviser for Communication in the Caribbean: Kingston, Jamaica.

Activities

About 200 issues of periodicals and 100 new publications are produced annually, and about 80 meetings and conferences and 30 seminars are held; close relations are maintained with some 400 non-governmental organizations, some carrying out projects for UNESCO programmes.

EDUCATION

UNESCO has an overall policy of regarding education as a lifelong process. As an example, one implication is the increasing priority given to pre-primary training. This approach has been the guideline for many of the projects recently planned. 'Education for All', 'The Formulation and Application of Educational Policies' and 'Education, Training and Society' are three of the major programmes for 1984-85.

Each year expert missions are sent to member states on request to advise on all matters concerning education. They also help with programmes for training abroad, and UNESCO provides study fellowships; in these forms of assistance priority is given to the rural regions of developing member countries. UNESCO is collaborating with the National Literacy Plan in Honduras, and the National Literacy Programme in Suriname.

NATURAL SCIENCES AND TECHNOLOGY

While the main emphasis in UNESCO's work in science and technology is on harnessing these to development, and above all on meeting the needs of developing countries, the Organization is also active in promoting and fostering collaborative international projects among the highly industrialized countries. UNESCO's activities can be divided into three levels: international, regional and sub-regional, and national.

At the international level, UNESCO has over the years set up various forms of inter-

governmental co-operation concerned with the environmental sciences and research on natural resources. Examples of these are the Man and Biosphere Programme (MAB) which at present has 1,000 projects under way, using an interdisciplinary approach to solving practical problems of environmental resource management in such areas as arid lands, humid tropical zones, mountain ecosystems, urban systems, etc.; the International Geological Correlation Programme (IGCP), run jointly with the International Union of Geological Sciences (*q.v.*); the International Hydrological Programme (IHP) dealing with the scientific aspects of water resources assessment and management; the Intergovernmental Oceanographic Commission (*q.v.*) which promotes scientific investigation into the nature and resources of the oceans through the concerted action of its member states; the International Lithosphere Programme was set up in 1981 by ICSU, IUGG and IUGS, to succeed the International Geodynamics Programme. Another programme, UNISIST, ensures worldwide co-operation in the field of scientific and technological information. In the basic sciences, UNESCO helps promote international and regional co-operation in close collaboration with the world scientific communities, with which it maintains close co-operative links particularly through its support to ICSU and member unions. Major disciplinary programmes are promoted in the fields of physics (including support to the International Centre for Theoretical Physics), the chemical sciences, life sciences, including applied microbiology, mathematics, informatics and new sources of energy. An International Research and Training Centre on Erosion and Sedimentation is being set up in China.

At the regional and sub-regional level, UNESCO develops co-operative scientific and technological research programmes through organization and support of scientific meeting and contracts with research institutions, and the establishment or strengthening of co-operative networks. Periodically, regional ministerial conferences are organized on science and technology policy and on the application of science and technology to development. More specialized regional and sub-regional meetings are also organized.

At the national level, UNESCO assists member states, upon request, in the field of policy-making and planning in the field of science and technology generally, and by organizing training and research programmes in basic sciences, engineering sciences and environmental sciences, particularly work relevant to development, such as projects concerning the use of small-scale energy sources for rural and dispersed population.

SOCIAL AND HUMAN SCIENCES

The social sciences programme is expanding so as to ensure the development of the social sciences throughout the world by strengthening national and regional institutions, the conceptual development of the social sciences, training, the exchange and diffusion of information, and co-operation with international non-governmental organizations. Furthermore, the activities are aimed at promoting, at the methodological level, the applicability of the social sciences, in particular by process of socio-economic analysis.

The activities concerning Human Rights and Peace include two major programmes: the elimination of prejudice, intolerance, racism and apartheid; and a programme for peace, international understanding, human rights and the rights of peoples.

Activities related to women in societies correspond to the three objectives set for the UN Decade for Women, namely: promotion of equality, their participation in development and their contribution to peace. Youth programmes are also under way in co-operation with member states and international non-governmental organizations.

CULTURE

A programme begun in 1973 seeks to speed the change in the role of culture, from the activity of an élite in society to a necessity claimed by all. This involves the training of specialists in cultural development, arts administration and the organization of cultural events. In 1984 UNESCO supported the commemoration of the 800th anniversary of the birth of Sheikh Musli Al-Din Saadi Shirazi, the Iranian thinker, poet and writer; and the commemoration of the 50th anniversary of the death of Augusto César Sandino, the Nicaraguan leader and liberator.

The Secretariat runs studies on the situation of the artist in society, various problems of artistic creation and various new possibilities in creative work which have been made by new technology. To widen the appreciation of painting, UNESCO publishes catalogues of colour reproductions and organizes travelling exhibitions of reproductions of famous paintings.

In another programme, translations of important literary works of the world are produced.

An established programme investigates cultures of Asia, Latin America, Europe, Africa and the Arab world. A group of experts is working on an eight-volume *General History of Africa*, the fourth of which was published in 1984. There is also a ten-year programme to promote the study of African languages and oral traditions and to encourage the teaching of these subjects throughout the world.

There are studies on problems involved in international exchanges of works of art, the preservation of historic quarters of cities, and protection of works of art from theft; UNESCO is also concerned with the return of cultural property to its country of origin.

UNESCO supports efforts to preserve architectural monuments. There is a plan to save the archaeological site of Tyre, and to transfer to safety a group of temples that are threatened by rising water levels at Philae in Egypt; there are international campaigns to save the Parthenon, Greece, Moenjodaro, Pakistan, and several buildings in Venice, Italy. In 1984 an appeal was launched to save the ancient cities of San'a (Arab Republic of Yemen) and Shibam (People's Democratic Republic of Yemen).

As part of a programme aiming to stimulate the production and reading of books, an international committee of publishers, authors, librarians and booksellers has been set up.

COMMUNICATION

UNESCO's programme aims at fostering a free flow and a wider and better balanced

exchange of information among individuals, communities and countries, and focuses on the role of the mass media in furthering international understanding and peace. The international movement of persons and circulation of materials are promoted through measures for the reduction of obstacles of a legislative, administrative or economic nature.

Assistance is provided to member states in the formulation of national communication policies, and a series of regional inter-governmental conferences on this subject is organized regularly. UNESCO also promotes research in the field of communication, and for this purpose has been instrumental in setting up an International Network of Documentation Centres on Communication Research and Policies.

UNESCO co-operates with member states, particularly in the developing countries, in strengthening and expanding their communication systems, and for this purpose executes a number of programmes both in individual countries and at the regional and sub-regional levels, to provide advisory services and help advance professional training in communication skills.

In 1980 a 'New World Information and Communication Order' (NWICO) was approved, and the Intergovernmental Programme for the Development of Communication was established. 'Communication in the Service of Man' is a major programme for 1984-85.

BUREAU OF STUDIES AND PROGRAMMING

INFORMATION SYSTEMS AND SERVICES

UNESCO's General Information Programme is an intergovernmental programme concerned with the development and promotion of information systems and services in the fields of scientific and technological information, documentation, libraries and archives at the national, regional and international levels. Its activities, including those directed to the development of UNISIST, fall into the following categories: promotion of the formulation of information policies and plans; promotion and dissemination of methods, norms and standards for information handling; contribution to the development of information infrastructure; contribution to the development of specialized information systems; promotion of the training and education of information specialists and users.

Since the Intergovernmental Conference on Scientific and Technological Information for Development (UNISIST II) and the United Nations Conference on Science and Technology for Development (UNCSTD), held in 1979, the General Information Programme has decided to attach particular importance to socio-economic information and to the special needs of developing countries. Its programme will increasingly favour a user-oriented approach, and specifically, those users taking part in the development process; the programme will endeavour to facilitate the member states' choice, use, and adaptation of advanced information and communication technology.

A new intergovernmental informatics programme has been proposed to help countries, particularly in the Third World, to benefit from recent advances in computer science.

Finance

UNESCO REGULAR BUDGET
1984-85—US \$)

General Policy and Direction	
General Conference	5,098,000
Executive Board	620,900
Directorate	29,600
Services of the Directorate	13,168,000
Participation in the joint machinery of the UN system	863,800
Programme Operations and Services	
Major Programmes:	
Reflection on World Problems and Future-oriented Studies	2,729,200
Education for All	31,130,700
Communication in the Service of Man	16,156,600
Formulation and Application of Educational Policies	35,546,300
Education, Training and Society	17,106,000
The Sciences and their Application to Development	30,482,700
Information Systems and Access to Knowledge	12,194,100
Principles, Methods and Strategies of Action for Development	11,052,200
Science, Technology and Society	7,586,200
The Human Environment and Terrestrial and Marine Resources	31,176,700
Culture and the Future	25,554,300
The Elimination of Prejudice, Intolerance, Racism and Apartheid	1,629,800
Peace, International Understanding, Human Rights and the Rights of Peoples	5,540,300
General Programme Activities	27,185,100
Programme support	54,291,600
General administrative services	30,916,000
Common services	30,747,800
Appropriation reserve	29,387,000
Capital expenditure	4,845,000
Provision for currency fluctuation	46,145,000
	384,893,000
Less amount to be absorbed in the execution of the programme within the limits of the approved total budget	10,483,000
TOTAL	374,410,000

PUBLICATIONS

(in English, French and Spanish unless otherwise indicated)

UNESCO Courier: monthly illustrated journal devoted to the general interests of UNESCO; published in 27 languages.

UNESCO News: monthly, giving official information, records of meetings, reports, and articles on UNESCO's programme, etc.; English, French, Arabic and Spanish.

Copyright Bulletin: quarterly review of special studies and documentation on the legislation in different countries, and on

UNESCO's work on behalf of the harmonization of the various copyright laws; English, French, Spanish, Russian.

Museum: quarterly international review of museographical techniques intended for museum specialists; English and French.

Impact of Science on Society: quarterly reports on science as a major force for social change; English, French, Spanish, Russian, Arabic, Chinese.

International Social Science Journal: quarterly journal.

Nature and Resources: quarterly review on environment and conservation; official bulletin of the Man and Biosphere Programme, the International Hydrological Programme and the International Geological Correlation Programme; English, French, Spanish, Russian.

Prospects: quarterly review on educational planning; English, French, Spanish, Russian, Arabic.

Cultures: quarterly, exploring the concept and definition of the world culture, its development and the influence of cross-cultural contacts. Also examines varieties of cultural creativity, the emergence and role of cultural institutions and the problems involved in studying culture; English, French, Spanish, Russian, Arabic.

International Marine Science Newsletter: quarterly, issued on behalf of the Intergovernmental Oceanographic Commission and UN Specialized Agencies with interests in the marine field.

INTERNATIONAL INSTITUTE
FOR EDUCATIONAL
PLANNING (IIEP)

7-9 rue Eugène Delacroix, 75116 Paris, France

Telephone: 504-28-22
Telex: 620074

Established by UNESCO in 1963 to serve as a world centre for advanced training and research in educational planning. Its purpose is to help all member states of UNESCO in their social and economic development efforts, by enlarging the fund of knowledge about educational planning and the supply of competent experts in this field.

Legally and administratively a part of UNESCO, the Institute enjoys intellectual autonomy, and its policies and programme are controlled by its own Governing Board, under special statutes voted by the General Conference of UNESCO.

Chairman of Governing Board: Prof. MALCOLM S. ADISESHIAH.

Director: SYLVAIN LOURIE.

A catalogue of publications, listing over 400 titles, is available on request.

Budget 1985: US \$2,500,000.

INTERNATIONAL BUREAU OF
EDUCATION (IBE)

CP 199, 1211 Geneva 20, Switzerland

Telephone: 98-14-55
Telex: 22644

Founded in 1925, the IBE became an inter-governmental organization in July 1929 and

was incorporated into UNESCO in January 1969.

COUNCIL

The Council of the IBE is composed of representatives of 24 member states designated by the General Conference of UNESCO.

Director: Dr SETH J. SPAULDING.

FUNCTIONS

International Conference on Education. 40th session: improvement of secondary education — objectives, content, structures and methods, taking into account the optimum contribution that such education should make both to the full development of the individual and to his or her preparation for social, cultural and economic life.

International Education Library: 92,000 vols; some 1,200 journals received regularly; 220,000 research reports on microfiche.

International Educational Reporting Service (IERS): provides information on educational innovations.

International Exhibition of Education.

BUDGET

Financed from the budget of UNESCO 1984-85: US \$4,390,000.

PUBLICATIONS

International Yearbook of Education, Vol. XXXVII 1985.

Studies and Surveys in Comparative Education, series.

Educational Sciences, series.

Experiments and Innovations in Education, series.

Ibedata, reference series (terminologies and directories).

International Bureau of Education Bulletin.

Educational Innovation and Information (newsletter).

UNITED NATIONS
UNIVERSITY

Toho Seimei Building, 15-1, Shibuya 2-chome, Shibuya-ku, Tokyo 150, Japan

Telephone: (81) (3) 499-2811
Telex: 25442

The University is sponsored jointly by UN and UNESCO. It is an autonomous institution within the UN framework, guaranteed academic freedom by a charter approved by the General Assembly in 1973. Work began in September 1975, financed from an Endowment Fund and operational funds to which many countries have contributed. The University is not traditional in the sense of having students or awarding degrees, but works through networks of collaborating institutions and individuals. Initially, the University's activities were concentrated in the areas of hunger, human and social development, and use and management of natural resources. The University now has 37 Associated Institutions and collaborates with many other institutions of higher learning, through which it carries out its work in more than 60 countries. In 1984 the UNU established in Helsinki the World Institute for Development Economics Research (*q.v.*, below), which is the first in

the new worldwide network of research and training centres to be set up by the University. In 1983 106 UNU Fellowships were awarded.

At present the University works in the areas of Peace, Security, Conflict Resolution, and Global Transformation; Global Economy; Hunger, Poverty, Resources and the Environment; Human and Social Development and Co-existence of Peoples, Cultures and Social Systems; Science and Technology and their Social and Ethical Implications. There are 3 Divisions to plan and co-ordinate research, postgraduate training and knowledge-dissemination activities: Development Studies (country-specific research); Regional and Global Studies (international and cross-cultural dimensions); Global Learning (dissemination and use of knowledge).

Rector: SOEDJATMOKO.

Vice-Rectors: ALEXANDER A. KWAPONG (Institutional Planning and Resource Development), EDWARD PLOMAN (Global Learning), NEVIN S. SCRIMSHAW (Development Studies), KINHIDE MUSHAKOJI (Regional and Global Studies).

Chairman of Council: Prof. VICTOR L. URQUIDI.

UNIVERSITY FOR PEACE

Apdo postal 199, 1.250 Escazú, Costa Rica

Telephone: 49-10-72

Telex: 2331

Founded 1980 by the UN but financially independent; will conduct academic

research on all aspects of peace, including disarmament, conflict resolution and mediation, the relation between peace and development, and the effects on peace of migration and refugees; various int. and governmental institutions are collaborating with the university; first students were admitted in 1985.

Rector: Lic. RODRIGO CARAZO

Executive Secretary: Dr FRANCISCO BARAHONA

Librarian: OLGA MARÍA RODRÍGUEZ

Number of teachers: 6

Number of students: 25

Publication: *Carta Informativa* (in Spanish and English).

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS

International Council of Scientific Unions/Conseil international des unions scientifiques: 51 blvd de Montmorency, 75016 Paris, France; tel. 525-03-29; telex ICSU 630553 F; the ICSU was founded in 1931, succeeding the International Research Council founded in 1919, to co-ordinate international efforts in the different branches of science and its applications; to initiate the formation of international associations or unions deemed to be useful to the progress of science; to enter into relations with the governments of the countries adhering to the Council in order to promote investigations falling within the competence of the Council. Adhering organizations represent 71 countries and 20 international unions. In December 1946 an agreement was signed between UNESCO and the ICSU recognizing the latter as the co-ordinating and representative body of international scientific unions; Pres. Sir JOHN KENDREW; Vice-Pres. Prof. W. A. ROSENBLITH; Sec.-Gen. L. ERNSTER; Treas. Prof. K. THURAU; Exec. Sec. F. W. G. BAKER; publs *ICSU Year Book*†, *ICSU Newsletter*†.

UNION REPRESENTATIVES

IAU	Prof. R. WEST
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URSI	Prof. W. E. GORDON
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IUPAP	Prof. D. A. BROMLEY
IGU	Prof. P. SCOTT
IUBS	Prof. P. FASELLA
IUHPS	Prof. R. HILPINEN
IUCr	Dr J. KARLE
IUTAM	Prof. J. HULT
IMU	Prof. O. LEHTO
IUB	Prof. J. ALLENDE
IUPS	Prof. J. SCHERRER
IUGS	Prof. E. SEIBOLD
IUPAB	Prof. W. WUTHRICH
IUNS	Ms D. HOLLINGSWORTH
IUPHAR	Prof. P. G. WASER
IUIS	Prof. B. CINADER
IUMS	Prof. P. GERHARDT
IUPsyS	Prof. F. KLIX

NATIONAL REPRESENTATIVES

Prof. J. BENARD	(France)
Sir ARNOLD BURGEN	(UK)
Prof. T. CAO	(China)
Prof. J. C. I. DOOGUE	(Ireland)

Prof. M. DA FROTA (Brazil)

MOREIRA

Dr. A. P. MITRA

Prof. D. ODHAMBO

Prof. A. PAOLETTI

Prof. M. SELA

Prof. G. SMETS

Dr O. G. TANDBERG

Dr R. VILLEGAS

Prof. I. WATANABE

(India)

(Kenya)

(Italy)

(Israel)

(Belgium)

(Sweden)

(Venezuela)

(Japan)

UNIONS FEDERATED TO THE ICSU

International Astronomical Union/Union astronomique internationale: 61 ave de l'Observatoire, 75014 Paris, France; f. 1919 to facilitate co-operation between the astronomers of various countries and to further the study of astronomy in all its branches; 49 affiliated countries, 5,200 individual mems; Pres. Prof. R. HANBURY BROWN (Australia); Gen. Sec. Dr R. M. WEST (Denmark); publs *Transactions of the International Astronomical Union* and *Symposia organized by the International Astronomical Union*.

International Geographical Union (IGU)/Union géographique internationale: f. 1923 to encourage the study of problems relating to geography, to promote and co-ordinate research requiring international co-operation, and to organize international congresses and commissions; 90 mem. countries; Pres. Prof. PETER SCOTT (Australia); Sec.-Treas. Prof. LESZEK A. KOSIŃSKI, Dept of Geography, University of Alberta, Edmonton, Alta T6G 2H4, Canada.

International Mathematical Union: Dept of Mathematics, University of Helsinki, Hallituskatu 15, SF-00100 Helsinki, Finland; tel. (358) 0-1912883; telex 124690 UNIH SF; f. 1950 by a convention of delegates of national cttees representing 22 countries which met in New York, to promote international co-operation in mathematics; to support and assist the International Congress of Mathematicians and other international scientific meetings or conferences; to encourage and support other international mathematical activities considered likely to contribute to the development of mathematical science—pure, applied, or educational; 52 mem. countries; 2 commissions: Int. Comm. on Mathematical Instruction, Comm. for Development and

Exchange; Pres. Prof. J. MOSER; Vice-Pres. Prof. L. FADDEEV, J.-P. SERRE; Sec.-Gen. Prof. O. LEHTO.

International Union of Biochemistry/Union internationale de biochimie: c/o Dept of Biochemistry, Duke University, School of Medicine, POB 3711, Durham, NC 27710, USA; tel. (919) 684-5326; telex 802829 Duktelcom Durm; f. 1955 (a) to encourage the continuance of a series of International Congresses of Biochemistry, (b) to promote international co-ordination of research, discussion and publication, (c) to organize a permanent co-operation between the societies representing biochemistry in the adherent countries, and (d) to contribute to the advancement of biochemistry in all its international aspects; 51 adhering bodies, five assoc. adhering bodies; Pres. Prof. H. G. WOOD (USA); Sec.-Gen. ROBERT L. HILL (USA); Treas. Prof. K. YAGI (Japan).

International Union of Biological Sciences/Union internationale des sciences biologiques: 51 blvd de Montmorency, 75016 Paris, France; tel. 525-00-09; telex 630553; f. 1919 for the promotion of international co-operation in biology; 47 countries are represented; Pres. Prof. P. FASELLA (Italy); Sec.-Gen. Prof. E. S. AYENSU (Ghana/USA); Treas. Prof. C. LÉVI (France); Exec. Sec. Dr T. YOUNES; publs *Biology International—The IUBS News Magazine*† (2 a year plus *Special Issues*), *Proceedings of the General Assemblies*† (every 3 years).

International Union of Crystallography/Union internationale de cristallographie: f. 1947 to promote international co-operation in crystallography; to contribute to the advancement of crystallography in all its aspects, including related topics concerning the non-crystalline states; to facilitate international standardization of methods, of units, of nomenclature and of symbols used in crystallography; and to form a focus for the relations of crystallography to other sciences; 33 mem. countries; 13 commissions; Pres. Prof. TH. HAHN (Fed. Repub. Germany); Gen. Sec. and Treas. Prof. K. V. J. KURKI-SUONIO (Finland); Exec. Sec. Dr J. N. KING, 5 Abbey Square, Chester, CH1 2HU, England; tel. (0244) 42878; publs *Acta*

Crystallographica, Section A (every 2 months), Section B (every 2 months), Section C (monthly), *Journal of Applied Crystallography* (every 2 months), *Structure Reports* (2 vols a year), *International Tables for X-Ray Crystallography*, *World Directory of Crystallographers*, *Index of Crystallographic Supplies*, *Bibliographies*, etc.

International Union of Geodesy and Geophysics/Union géodésique et géophysique internationale: Observatoire Royal, Ave Circulaire, Brussels, Belgium; tel. 374-38-01; f. 1919 to promote the study of problems relating to the form and physics of the earth; to initiate, facilitate and co-ordinate research into those problems of geodesy and geophysics which require international co-operation; to provide for discussion, comparison and publication. The Union is a federation of 7 associations representing Geodesy, Seismology and Physics of the Earth's Interior, Physical Sciences of the Ocean, Volcanology and Chemistry of the Earth's Interior, Hydrological Sciences, Meteorology and Atmospheric Physics, Geomagnetism and Aeronomy, which meet at the General Assemblies of the Union. In addition, there are Joint Committees of the various associations either among themselves or with other unions. The Union organizes scientific meetings and also sponsors various permanent services, the object of which is to collect, analyse and publish geophysical data; 78 mem. countries; Pres. D. LAL (India); Vice-Pres. C. KISSLINGER (USA); Sec.-Gen. P. MELCHIOR (Belgium); publs *IUGG Chronicle* (every 2 months), *IUGG Monographs* (irregular), *Proceedings of Assemblies*; in addition each member association has its own series of publs.

International Union of Geological Sciences/Union internationale des sciences géologiques: Geological Survey of Norway, Leiv Eirikssons vei 39, POB 3006, 7001 Trondheim, Norway; tel. (7) 92-15-00; f. 1961 as an offspring of the International Geological Congress; mems from 95 countries; Pres. Dr W. W. HUTCHISON (Canada); Vice-Pres Prof. V. L. BARSUKOV (USSR), Dr M. BENSARD (Morocco), Dr ZHANG BINGXI (China), Prof. U. G. CORDANI (Brazil), Dr G. KAUSKY (Sweden), Prof. Z. KIELAN-JAWOROWSKA (Poland), Prof. C. A. KOGBE (Nigeria), Dr S. K. MUKERJEE (India); Treas. Dr J. A. REINEMUND (USA); Sec.-Gen. Prof. R. SINDING-LARSEN (Norway); publs *Episodes*, *Geological Newsmagazine* (quarterly), *Reviews or Annotated bibliographies* on geological topics of current interest (irregular).

International Union of Immunological Societies (IUIS)/Union Internationale des Sociétés d'Immunologie: 9650 Rockville Pike, Bethesda, Md 20814, USA; tel. (301) 530-7178; f. 1969; 34 national societies; Pres. Prof. ALAIN DEWECK (Switzerland); Sec.-Gen. Dr HENRY METZGER (USA).

International Union of Microbiological Societies (IUMS)/Union internationale des sociétés de microbiologie: Dept of Genetics, University of Newcastle, Ridley Bldg, Claremont Rd, Newcastle upon Tyne, NE1 7RU, UK; tel. (0632) 328511 ext. 3897; telex 53654; f. 1930; mems: 87 national societies; Pres. Prof. P. GERHARDT (USA); Sec.-Gen. Prof. S. GLOVER (UK); Treas. Prof. M. C. HORZINEK (Netherlands); publs *Microbiological Sciences* (monthly), *International Journal of*

Systematic Bacteriology (quarterly), *Intervirology* (monthly), *International Journal of Food Microbiology* (every 2 months), *Advances in Microbial Ecology* (annually), *Journal of Biological Standardisation* (quarterly).

International Union of Nutritional Sciences (IUNS)/Union Internationale des Sciences de la Nutrition: f. 1946 to study the science of nutrition and its applications; mems from 50 countries; Pres. Prof. R. BUZINA (Yugoslavia); Vice-Pres. Prof. J. E. DUTRA DE OLIVEIRA (Brazil), Prof. J. G. A. J. HAUTVAST (Netherlands), Prof. A. VALYASEVI (Thailand); Sec.-Gen. D. D. F. HOLLINGSWORTH, Inst. of Biology, 20 Queensberry Place, London, SW7 2DZ, England; tel. (01) 581-8333; Treas. Dr J. A. CAMPBELL (Canada).

International Union of Pharmacology (IUPHAR)/Union Internationale de Pharmacologie: f. 1959 as section of Int. Union of Physiological Sciences, independent 1963; promotes international co-ordination of research, discussion, symposia, and publication in the field of pharmacology; co-operates with WHO in matters concerning drugs and drug research, and with related international unions; three-yearly international congresses; 44 national and regional mem. socs; integral sections of Clinical Pharmacology, Toxicology and of Drug Metabolism, which also arrange international meetings; Pres. P. LECHAT (France); Sec.-Gen. Dr A. M. BARRETT, University of Buckingham, Buckingham, MK18 1EG, England; publ. *TIPS (Trends in Pharmacological Sciences)*.

International Union of Physiological Sciences: c/o Prof. A. G. B. KOVACH, Exp. Research Dept, Semmelweis Medical University, Ullői-ut 78/A, 1082 Budapest, Hungary; f. 1953 to encourage the advancement of physiological sciences, to facilitate the dissemination of knowledge in the field of physiology, to promote the International Congresses of Physiology and such other meetings as may be useful for the advancement of physiological sciences; 51 mem. countries; last Congress Sydney, 1983; Pres. Prof. E. NEIL (UK); Sec. Prof. A. G. B. KOVACH (Hungary); Treas. Prof. J. M. BROOKHART (USA); publs *Newsletter* (annually), *World Directory of Physiologists* (every 3 years).

International Union of Psychological Science/Union internationale de psychologie scientifique: f. 1951 at the 13th International Congress of Psychology (the first of which took place in 1889); congresses are held every four years; membership: 45 national societies; Pres. WAYNE H. HOLTZMAN (USA); Vice-Pres ROGELIO DIAZ-GUERRERO (Mexico), BORIS LOMOV (USSR); Sec.-Gen. KURT PAWLICK, University of Hamburg, Von-Melle-Park 11, 2000 Hamburg 13, Fed. Repub. of Germany.

International Union of Pure and Applied Biophysics: Institute of Biophysics, Medical University, 7643 Pécs, Hungary; tel. (72) 14017; f. 1961 to organize international co-operation in biophysics and promote communication between biophysics and allied subjects, to encourage national co-operation between biophysical societies, and to contribute to the advancement of biophysical knowledge; mems: adhering bodies in 37 countries; Pres. B. PULLMAN (France); Sec.-Gen. J. TIGYI (Hungary); publ. *Quarterly Reviews of Biophysics*.

International Union of Pure and Applied Chemistry (IUPAC)/Union internationale de chimie pure et appliquée: Bank Court Chambers, 2-3 Pound Way, Cowley Centre, Oxford, OX4 3YF, England; tel. (44) (865) 717744; telex 83147 attn IUPAC; f. 1919 to promote continuing co-operation among the chemists of the member countries; to study topics of international importance which require regulation, standardization or codification; to co-operate with other international organizations which deal with topics of a chemical nature; to contribute to the advancement of pure and applied chemistry in all its aspects; 44 mem. countries; Pres. Dr W. G. SCHNEIDER (Canada); Sec.-Gen. Prof. T. S. WEST (UK); Hon. Treas. Prof. A. BJÖRKMAN (Denmark); publs *Pure and Applied Chemistry* (monthly), *Chemistry International* (every 2 months).

International Union of Pure and Applied Physics/Union internationale de physique pure et appliquée: f. 1922 to promote and encourage international co-operation in physics; 45 countries are affiliated; 19 international commissions; Pres. Prof. D. A. BROMLEY; Sec.-Gen. Prof. JAN NILSSON, Chalmers University of Technology, 412 96 Göteborg, Sweden; publ. *IUPAP News Bulletin* (6 or 7 a year).

International Union of Radio Science/Union radio-scientifique internationale: 32 ave A. Lancaster, 1180 Brussels, Belgium; tel. 374-13-08; f. 1919 to develop scientific studies connected with radio science and especially (a) to promote and organize research necessitating international co-operation, and to facilitate the discussion and publication of the results of this research, (b) to facilitate the establishment of common radio measurement techniques and standards and (c) to stimulate and co-ordinate studies of the scientific aspects of telecommunications using electromagnetic waves; there are 40 national committees; Pres. A. P. MITRA (India); Sec.-Gen. J. VAN BLADEL (Belgium); publs *Proceedings of General Assemblies of the URSI*, *Information Bulletin* (quarterly), *Review of Radio Science*.

International Union of the History and Philosophy of Science: f. 1954 to promote research into the history and philosophy of science, to organize international congresses, and to co-operate with the other members of ICSU.

Two divisions:

Division of the History of Science: Dept of Philosophy, McGill University, 1001 Sherbrook St W, Montreal, Que. H3A 1G5, Canada; Pres. Prof. E. HIEBERT (USA); Sec. Prof. W. SHEA (Canada).

Division of Logic, Methodology and Philosophy of Science: Dept of Philosophy, University of Turku, SF-20500 Turku, Finland; Pres. Prof. DANA S. SCOTT (USA); Sec. Prof. RISTO HILPINEN (Finland).

International Union of Theoretical and Applied Mechanics/Union Internationale de Mécanique Théorique et Appliquée: f. 1947 to form a link between persons and organizations engaged in scientific work (theoretical or experimental) in mechanics or in related sciences; to organize international meetings for subjects falling within this field; and to engage in other activities meant to promote the development of mechanics as a science; 37 mem.