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FOREWORD

THE rapid growth of education throughout the world is once again reflected in a large increase in the number of pages in this, the fifteenth, edition of THE WORLD OF LEARNING.

New universities are being founded in developed and undeveloped countries alike and existing universities increase in size year by year. The great advance in technological education also contributes to the expansion of this volume.

Once again we have been greatly encouraged in our task by the willing co-operation of innumerable contributors, without whose help we should not have been able to present such a wealth of up-to-date information. We should like to extend to them our very sincere thanks.

December 1964.

ABBREVIATIONS

A.A.	..	Associate in Arts
A.B.	..	Bachelor of Arts
A.C.A.	..	Associate of the Institute of Chartered Accountants
Acad.	..	Academy
A.C.C.S.	..	Associate of the Corporation of Secretaries
A.C.I.I.	..	Associate of the Chartered Insurance Institute
A.C.I.S.	..	Associate of the Chartered Institute of Secretaries.
A.C.T.	..	Australian Capital Territory
A.D.C.	..	Aide-de-camp
Admin.	..	Administrative, Administration
Agr. de D.	..	Agrégé de Droit
Agr. de M.	..	Agrégé de Médecine
Agr. de Sc.	..	Agrégé de Science
Agr. des L.	..	Agrégé des Lettres
A.I.A.	..	Associate of Institute of Actuaries; American Institute of Architects
A.I.A.L.	..	Associate Member of the International Institute of Arts and Letters.
A.I.B.	..	Associate of the Institute of Bankers
A.I.C.E.	..	Associate of the Institution of Civil Engineers
A.I.C.E.A.	..	Associate of Industrial and Commercial Executive Accountants
A.I.Ch.E.	..	American Institute of Chemical Engineers
A.I.F.	..	Australian Imperial Forces
A.I.I.S.	..	Associate of the Irish Institute of Secretaries
A.I.L.	..	Associate of the Institute of Linguists
A.I.M.	..	Associate of the Institution of Metallurgists
A.I.Mech.E.	..	Associate of the Institution of Mechanical Engineers
A.I.M.T.A.	..	Associate of the Institute of Municipal Treasurers and Accountants
A.Inst.C.E.	..	Associate of the Institution of Civil Engineers
A.I.R.I.	..	Associate of the Institution of the Rubber Industry
A.K.C.	..	Associate of King's College (London)
A.L.A.	..	Associate of the Library Association
Ala.	..	Alabama
A.L.S.	..	Associate of the Linnæan Society
A.M.	..	Master of Arts
A.M.A.	..	Associate of the Museums Association
A.M.I.C.E.	..	Associate Member of the Institution of Civil Engineers
A.M.I.Chem.E.	..	Associate Member of the Institution of Chemical Engineers
A.M.I.E.E.	..	Associate Member of the Institution of Electrical Engineers
A.M.I.Mech.E.	..	Associate Member of the Institution of Mechanical Engineers
A.M.I.Struct.E.	..	Associate Member of the Institution of Structural Engineers
A.P.	..	Andhra Pradesh
A.P.I.	..	Associate of the Plastics Institute
Apptd.	..	Appointed
A.R.A.	..	Associate of the Royal Academy
A.R.A.M.	..	Associate of the Royal Academy of Music
A.R.C.A.	..	Associate of the Royal College of Art
A.R.C.M.	..	Associate of the Royal College of Music
A.R.C.O.	..	Associate of the Royal College of Organists
A.R.C.S.	..	Associate of the Royal College of Science
A.R.E.	..	Associate of the Royal Society of Painter Etchers
A.R.I.B.A.	..	Associate of the Royal Institute of British Architects
A.R.I.C.	..	Associate of the Royal Institute of Chemistry
A.R.I.C.S.	..	Associate of the Royal Institution of Chartered Surveyors
Ariz.	..	Arizona
Ark.	..	Arkansas
A.R.S.A.	..	Associate of the Royal Scottish Academy; Associate of the Royal Society of Arts
A.R.W.S.	..	Associate of the Royal Society of Painters in Water Colours
A.S.C.E.	..	American Society of Civil Engineers
A.S.M.E.	..	American Society of Mechanical Engineers
Asscn.	..	Association
Assoc.	..	Associate
Asst.	..	Assistant
Aug.	..	August
B.A...	..	Bachelor of Arts
B.Agr.	..	Bachelor of Agriculture
B.A.(Ed.)	..	Bachelor of Arts (Education)
B.A.O.	..	Bachelor of Obstetrics
B.Arch.	..	Bachelor of Architecture
B.A.S.	..	Bachelor in Agricultural Science
B.A.Sc.	..	Bachelor of Applied Science
B.B.A.	..	Bachelor of Business Administration
B.B.C.	..	British Broadcasting Corporation
B.C.E.	..	Bachelor of Civil Engineering
B.Ch., B. Chir.	..	Bachelor of Surgery
B.Chem.E.	..	Bachelor of Chemical Engineering
B.C.L.	..	Bachelor of Civil Law; Bachelor of Canon Law
B.Comm.	..	Bachelor of Commerce
B.C.S.	..	Bachelor of Commercial Sciences
B.D.	..	Bachelor of Divinity
B.D.S.	..	Bachelor of Dental Surgery
B.E.	..	Bachelor of Engineering; Bachelor of Education
B.Ec.	..	Bachelor of Economics
B.Ed.	..	Bachelor of Education
B.E.E.	..	Bachelor of Electrical Engineering
B.Eng.	..	Bachelor of Engineering
B.Eng.A.	..	Bachelor of Agricultural Engineering
B.E.Sc.	..	Bachelor of Engineering Science
B.F.A.	..	Bachelor of Fine Arts
B.For.	..	Bachelor of Forestry
B.I.D.	..	Bachelor of Industrial Design
B.Lit(t).	..	Bachelor of Letters
B.L.L.	..	Bachelor of Laws
B.L.S.	..	Bachelor of Library Science
B.M.	..	Bachelor of Medicine
B.M.A.	..	British Medical Association
B.M.E.	..	Bachelor of Mining Engineering
B.Mus.	..	Bachelor of Music
B.N.	..	Bachelor of Nursing

ABBREVIATIONS

B.Paed. (or Pd.)	..	Bachelor of Pedagogy	C.S.S.F.	..	Confédération des Sociétés Scientifiques Française
B.P.E.	..	Bachelor of Physical Education	C.St.J.	..	Commander of (the Order of) St. John of Jerusalem
B.Pharm.	..	Baccalauréat en Pharmacie	Cttee.	..	Committee
B.Phil.	..	Bachelor of Philosophy	C.V.O.	..	Commander of the (Royal) Victorian Order
Br.	..	Branch			
Bro.	..	Brother			
B.S.	..	Bachelor of Science; Bachelor of Surgery	D.Agr.	..	Doctor of Agriculture
B.S.A.	..	Bachelor of Scientific Agriculture	D.Arch.	..	Doctor of Architecture
B.Sc.	..	Bachelor of Science	D.B.	..	Bachelor of Divinity
B.Sc.C.E.	..	Bachelor of Science in Civil Engineering	D.B.E.	..	Dame Commander of (the Order of) the British Empire
B.S.C.	..	Bachelor of Science in Commerce	D.C.	..	District of Columbia
B.Sc.Com.	..	Bachelor of Commercial Science	D.C.H.	..	Diploma in Child Health
B.Sc.(Econ.)	..	Bachelor of Science in the Faculty of Economics	D.C.L.	..	Doctor of Civil Law
B.Sc.(Eng.)	..	Bachelor of Science in the Faculty of Engineering	D.C.M.	..	Distinguished Conduct Medal
B.Sc.F.	..	Bachelor of Science in Forestry	D.Cn.L.	..	Doctor of Canon Law
B.S. in H.E.	..	Bachelor of Science in Home Economics	D.C.S.	..	Doctor of Commercial Sciences
B.Sc.(M.E.)	..	Bachelor of Science in Mechanical Engineering	D.C.T.	..	Doctor of Christian Theology
B.Sc.Met.	..	Bachelor of Science (Metallurgy)	D.D.	..	Doctor of Divinity
B.Sc.Pharm.	..	Bachelor of Science in Pharmacy	D.D.C.	..	Docteur en droit canonique
B.S.D.	..	Bachelor of Didactic Science; Bachelor of Science in Dentistry	D. de l'U	..	Docteur de l'Université
Bt.	..	Baronet	D.D.S.	..	Doctor of Dental Surgery
B.Theol.	..	Bachelor of Theology	D.Econ.	..	Doctor of Economics
			D.Ed.	..	Doctor of Education
c.	..	circa (approximately)	Del.	..	Delegate, delegation, Delaware
C.A.	..	Chartered Accountant	D. en D.	..	Docteur en Droit
Calif.	..	California	D.Eng.	..	Doctor of Engineering
Cantab.	..	Of Cambridge University	Dept.	..	Department
C.B.	..	Companion of the (Order of the) Bath	D. ès L.	..	Docteur ès Lettres
C.B.E.	..	Commander of (the Order of) the British Empire	D. ès Sc.	..	Docteur ès Sciences
C.E.	..	Civil Engineer	D.F.A.	..	Doctor of Fine Arts.
C.G.I.A.	..	City and Guilds Institute Award	D.F.C.	..	Distinguished Flying Cross
C.H.	..	Companion of Honour	D.H.L.	..	Doctor of Hebrew Literature
Chair.	..	Chairman	D.Hy.	..	Doctor of Hygiene
Ch.B.	..	Bachelor of Surgery	D.I.H.	..	Diploma in Industrial Health
Ch.M.	..	Master of Surgery (Edinburgh University)	Dip. Bact.	..	Diploma in Bacteriology
C.I.A.L.	..	Corresponding Member of the International Institute of Arts and Letters	Dip. Ed.	..	Diploma in Education
C.I.E.	..	Companion of (the Order of) the Indian Empire	Dip. Ing.	..	Diploma in Engineering
Cie.	..	Compagnie (Company)	Dip. Pub. Admin.	..	Diploma in Public Administration
C.I.E.E.	..	Companion of the Institution of Electrical Engineers	Dir.	..	Director
C.M.	..	Master in Surgery	D. Iur. Utr.	..	Doctor of both Civil and Canon Law
C.M.G.	..	Companion of (the Order of) St. Michael and St. George	D.L.	..	Doctor of Laws
C.N.R.S.	..	Centre National de la Recherche Scientifique	D.Lett.	..	Doctorat ès lettres
Co.	..	Company; County	D.Lit(t).	..	Doctor of Letters; Doctor of Literature
Colo.	..	Colorado	D.Litt.S.	..	Doctor of Sacred Letters
Comm.	..	Commission	D.L.S.	..	Doctor of Library Science
Commndr.	..	Commander	D.M.	..	Doctor of Medicine (Oxford)
Commr.	..	Commissioner	D.Math.Sc.	..	Doctor of Mathematical Science
Conf.	..	Conference	D.M.D.	..	Doctor of Dental Medicine
Conn.	..	Connecticut	D.Mus.	..	Doctor of Music
Corpn.	..	Corporation	D.Oph.	..	Doctor of Ophthalmology
Corresp.	..	Correspondent, Corresponding	D.Paed.	..	Doctor of Paediatrics
C.P.	..	Congregation of the Passion	D.Phil.	..	Doctor of Philosophy
C.P.A.	..	Certified Public Accountant	D.P.H.	..	Diploma in Public Health
C.P.H.	..	Certificate of Public Health	D.P.M.	..	Diploma in Psychological Medicine
C.S.I.	..	Companion of (the Order of) the Star of India	D.P.H.N.	..	Diploma in Public Health Nursing
C.S.I.R.	..	Council for Scientific and Industrial Research (re-named Commonwealth Scientific and Industrial Research Organisation)	Dr.h.c.	..	Dr. honoris causa
			Dr. Ing.	..	Doctor of Engineering
			Dr. Jur.	..	Doctor of Laws
			Dr. Med.	..	Doctor of Medicine
			Dr.Med.Dent.	..	Doctor of Dentistry.
			Dr.Med.Vet.	..	Doctor of Veterinary Medicine
			Dr. Oec.	..	Doctor of Commerce
			Dr. Phar.	..	Doctor of Pharmacy
			Dr.rer.Hort.	..	Doctor of Horticulture
			Dr.rer.Nat...	..	Doctor of Natural Science
			Dr.rer.Pol.	..	Doctor of Political Science
			Dr. Theol.	..	Doctor of Theology

ABBREVIATIONS

D.S.C. .. Distinguished Service Cross
D.Sc. .. Doctor of Science
D.Sc.A. .. Doctor of Applied Science
D.Sc.Agr. .. Doctor of Science in Agriculture
D.Sc.Pol. .. Doctor of Political Sciences
D.S.I.R. .. Department of Scientific and Industrial Research
D.S.M. .. Distinguished Service Medal
D.S.O. .. Distinguished Service Order
D.S.T. .. Doctor of Sacred Theology
D.S.W. .. Doctor of Social Work
D.Tech. .. Doctor in Technology
D.Theol. .. Doctor of Theology
D.T.M. .. Diploma in Tropical Medicine
D.U.P. .. *Docteur de l'Université de Paris*
D.V.M. .. Doctor of Veterinary Medicine
D.V.S. .. Doctor of Veterinary Science

E.D. .. Doctor of Engineering (U.S.A.)
Ed.B. .. Bachelor of Education
Ed.D. .. Doctor of Education
Edin. .. Edinburgh
Edn. .. Edition
Ed.M. .. Master of Education
E.E. .. Doctor of Electrical Engineering
Exec. .. Executive

f. .. founded
F.A.A. .. Fellow of the Australian Academy of Science
F.A.A.A.S. .. Fellow of the American Association for the Advancement of Science
F.A.C.C.A. .. Fellow of the Association of Certified and Corporate Accountants
F.A.C.D. .. Fellow of the American College of Dentistry
F.A.C.P. .. Fellow of American College of Physicians
F.A.C.S. .. Fellow of the American College of Surgeons
F.A.I. .. Fellow of the Chartered Auctioneers' and Estate Agents' Institute
F.A.I.A. .. Fellow of the American Institute of Architects
F.A.O. .. Food and Agriculture Organisation
F.A.S.E. .. Fellow of Antiquarian Society Edinburgh
F.B.A. .. Fellow of the British Academy
F.B.A.A. .. Fellow of the British Association of Accountants and Auditors
F.C.A. .. Fellow of the Institute of Chartered Accountants
F.C.C.S. .. Fellow of the Corporation of Secretaries
F.C.I.C. .. Fellow of the Chemical Institute of Canada
F.C.I.I. .. Fellow Chartered Insurance Institute
F.C.I.S. .. Fellow of the Chartered Institute of Secretaries
F.C.S. .. Fellow of the Chemical Society
F.C.T. .. Federal Capital Territory
F.C.W.A. .. Fellow of the Chartered Institute of Cost and Works Accountants
F.D.S.R.C.S. .. Fellow of the Royal College of Surgeons in Dental Surgery
Fed. .. Federation, Federal
F.E.I.S. .. Fellow Educational Institute of Scotland
F.F.A.R.C.S. .. Fellow of the Faculty of Anæsthetics, Royal College of Surgeons
F.F.R. .. Fellow of the Faculty of Radiologists
F.G.A. .. Fellow of the Gemmological Association
F.G.S. .. Fellow of the Geological Society
F.I.A. .. Fellow of the Institute of Actuaries

F.I.A.L. .. Fellow of the International Institute of Arts and Letters
F.I.B. .. Fellow of the Institute of Bankers
F.I.C.E.A. .. Fellow of Industrial and Commercial Executive Accountants
F.I.C.S. .. Fellow International College of Surgeons
F.I.I.S. .. Fellow of the Irish Institute of Secretaries
F.I.L. .. Fellow of the Institute of Linguists
F.I.M. .. Fellow of the Institution of Metallurgists
F.Inst.F. .. Fellow of the Institute of Fuel
F.Inst.P. .. Fellow of the Institute of Physics
F.Inst.Pet. .. Fellow of the Institute of Petroleum
F.I.R.E. .. Fellow of the Institution of Radio Engineers
F.I.R.I. .. Fellow of the Institution of the Rubber Industry
F.J.I. .. Fellow of the Institute of Journalists
F.K.C. .. Fellow of King's College (London)
Fla. .. Florida
F.L.A. .. Fellow of the Library Association
F.L.S. .. Fellow of the Linnæan Society
F.M.A. .. Fellow of the Museums Association
F.N.I. .. Fellow of the National Institute of Sciences (India)
F.Ph.S. .. Fellow of the Philosophical Society of England
F.Phys.S. .. Fellow of the Physical Society
F.P.I. .. Fellow of the Plastics Institute
F.R.A.C.P. .. Fellow of the Royal Australasian College of Physicians
F.R.A.C.S. .. Fellow of the Royal Australasian College of Surgeons
F.R.Ae.S. .. Fellow of the Royal Aeronautical Society
F.R.A.H.S. .. Fellow of the Royal Australian Historical Society
F.R.A.I. .. Fellow of the Royal Anthropological Institute
F.R.A.I.A. .. Fellow of the Royal Australian Institute of Architects
F.R.A.I.C. .. Fellow of the Architectural Institute of Canada
F.R.A.M. .. Fellow of the Royal Academy of Music
F.R.A.S. .. Fellow of the Royal Astronomical Society; Fellow of the Royal Asiatic Society
F.R.B.S. .. Fellow of the Royal Society of British Sculptors; Fellow of the Royal Botanic Society
F.R.C.M. .. Fellow of the Royal College of Music
F.R.C.O. .. Fellow of the Royal College of Organists
F.R.C.O.G. .. Fellow of the Royal College of Obstetricians and Gynæcologists
F.R.C.P. (E.) .. Fellow of the Royal College of Physicians (Edinburgh)
F.R.C.P. (I.) .. Fellow of the Royal College of Physicians (Ireland)
F.R.C.S. (C.) .. Fellow of the Royal College of Surgeons (Canada)
F.R.C.S. (E.) .. Fellow of the Royal College of Surgeons (Edinburgh)
F.R.C.V.S. .. Fellow of the Royal College of Veterinary Surgeons (London)
F.R.Econ.S. .. Fellow of the Royal Economic Society
F.R.F.P.S. .. Fellow of Royal Faculty of Physicians and Surgeons
F.R.G.S. .. Fellow of the Royal Geographical Society
F.R.Hist.S. .. Fellow of the Royal Historical Society
F.R.Hort.S. .. Fellow of the Royal Horticultural Society
F.R.I.B.A. .. Fellow of the Royal Institute of British Architects
F.R.I.C. .. Fellow of the Royal Institute of Chemistry
F.R.I.C.S. .. Fellow of the Royal Institution of Chartered Surveyors

ABBREVIATIONS

F.R.Met.Soc.	Fellow of the Royal Meteorological Society	J.D.	.. Doctor of Jurisprudence
F.R.S.	.. Fellow of the Royal Society	J.P.	.. Justice of the Peace
F.R.S.A.	.. Fellow of the Royal Society of Arts	J.S.D.	.. Doctor of Juristic Science
F.R.San.I.	.. Fellow of the Royal Sanitary Institute	J.U.D.	.. Juris utriusque Doctor (Doctor of both Civil and Canon Law)
F.R.S.C.	.. Fellow of the Royal Society of Canada	Ju.D.	.. Doctor of Law
F.R.S.E.	.. Fellow of the Royal Society of Edinburgh		
F.R.S.G.S.	.. Fellow of the Royal Scottish Geographical Society		
F.R.S.H.	.. Fellow Royal Society of Health	Kan.	.. Kansas
F.R.S.L.	.. Fellow of the Royal Society of Literature	K.B.E.	.. Knight Commander of (the Order of) the British Empire
F.R.S.S.	.. Fellow of the Royal Statistical Society	K.C.B.	.. Knight Commander of (the Order of) the Bath
F.R.S.S.Af.	Fellow of the Royal Society of South Africa	K.C.I.E.	.. Knight Commander of (the Order of) the Indian Empire
F.R.S.T.M.	.. Fellow of the Royal Society of Tropical Medicine and Hygiene	K.C.M.G.	.. Knight Commander of (the Order of) St. Michael and St. George
F.S.A.	.. Fellow of the Society of Antiquaries	K.C.S.I.	.. Knight Commander of the Star of India
F.S.A.(Scot.)	Fellow of the Society of Antiquaries (of Scotland)	K.C.V.O.	.. Knight Commander of the Royal Victorian Order
F.S.A.L.A.	.. Fellow South African Library Association	K.G.	.. Knight of (the Order of) the Garter
F.S.B.E.	.. Fellow of the Society for British Entomology	K.P.	.. Knight of (the Order of) St. Patrick
F.S.S.	.. Fellow of the Royal Statistical Society	K.St.J.	.. Knight of (the Order of) St. John of Jerusalem
F.T.C.D.	.. Fellow of Trinity College, Dublin	K.T.	.. Knight of (the Order of) the Thistle
F.T.C.L.	.. Fellow of Trinity College of Music, London.	Kt.	.. Knight
F.T.I.	.. Fellow of the Textile Institute	Ky.	.. Kentucky
F.Z.S.	.. Fellow of the Zoological Society		
Ga.	.. Georgia	La.	.. Louisiana
G.B.E.	.. Knight (or Dame) Grand Cross of (the Order of) the British Empire	L.C.C.	.. London County Council
G.C.B.	.. Knight Grand Cross of (the Order of) the Bath	L.C.L.	.. Licentiate of Canon Law
G.C.I.E.	.. (Knight) Grand Commander of the Indian Empire	L.D.S.	.. Licentiate in Dental Surgery
G.C.M.G.	.. Knight Grand Cross of (the Order of) St. Michael and St. George	L. ès L.	.. Licencié ès Lettres
G.C.S.I.	.. Knight Grand Commander of the Star of India	L. ès Sc.	.. Licencié ès Sciences
G.C.V.O.	.. Knight Grand Cross of the (Royal) Victorian Order	L.H.D.	.. Doctor of Humane Letters
Gen.	.. General	L.I.M.	.. Licentiate of the Institution of Metallurgists
Gov.	.. Governor	Lic.Med.	.. Licentiate in Medicine
Govt.	.. Government	Litt.D.	.. Doctor of Letters
		LL.B.	.. Bachelor of Laws
		LL.D.	.. Doctor of Laws
		L.Lett.	.. Licentiate of Letters
		LL.L.	.. Licentiate of Laws
		LL.M.	.. Master of Laws
		L.M.	.. Licentiate of Medicine; or Midwifery
		L.M.S.	.. Licentiate in Medicine and Surgery
		L.M.S.S.A.	.. Licentiate in Medicine and Surgery of the Society of Apothecaries
		L.Mus.	.. Licentiate in Music.
		L.N.	.. League of Nations
		L.Ph.	.. Licentiate of Philosophy
		L.R.C.P.	.. Licentiate of the Royal College of Physicians
		L.R.C.S.	.. Licentiate of the Royal College of Surgeons
		LS.	.. Library Science
		L.S.A.	.. Licentiate of Science in Agriculture
		L.S.T.	.. Licentiate in Sacred Theology
		L.Th.	.. Licentiate or Master of Theology
		M.A.	.. Master of Arts
		M.Agr.	.. Master of Agriculture (U.S.A.)
		Man.	.. Manager, Managing; Manitoba
		M.A.O.	.. Master of Obstetrics
		M.Arch.	.. Master in Architecture
		M.A.Sc.	.. Master of Applied Science
		Mass.	.. Massachusetts
		M.B.	.. Bachelor of Medicine
		M.B.A.	.. Master of Business Administration
		M.B.E.	.. Member of (the Order of) the British Empire
		M.C.	.. Military Cross
		M.C.E.	.. Master of Civil Engineering
		M.Ch.	.. Master of Surgery
Ia.	.. Iowa		
I.C.E.	.. Institute of Civil Engineers		
I.C.S.	.. Indian Civil Service		
Ida.	.. Idaho		
Ill.	.. Illinois		
I.L.O.	.. International Labour Organisation		
Inc.	.. Incorporated		
Ind.	.. Indiana; Independent		
Inst.	.. Institute; Institution		
Inst.C.E.	.. Institution of Civil Engineers		
Inst.E.E.	.. Institution of Electrical Engineers		
Inst.Mech.E.	.. Institution of Mechanical Engineers		
Int.	.. International		
I.S.O.	.. (Companion of the) Imperial Service Order		
J.C.B.	.. Juris Canonici Bachelor (Bachelor of Canon Law)		
J.C.D.	.. Juris Canonici Doctor (Doctor of Canon Law)		
J.C.L.	.. Juris Canonici Lector		

ABBREVIATIONS

M.Ch.D.	..	Master of Dental Surgery	M.R.S.A.E.	Member of Royal Society of Agricultural Engineers
M.Ch.E.	..	Master of Chemical Engineering	M.R.S.L.	.. Member of the Royal Society of Literature
M.C.L.	..	Master of Civil Law	M.S.	.. Master of Science; Master of Surgery
M.Com(m).	..	Master of Commerce	M.S.B.E.	.. Member of the Society for British Entomology
M.C.S.	..	Master of Commercial Science	M.Sc.	.. Master of Science
Md.	..	Maryland	M.Sc.A.	.. Master of Applied Science
M.D.	..	Doctor of Medicine	M.Sc.Ag.	.. Master of Science in Agriculture
M.D.S.	..	Master of Dental Surgery	M.Sc.(Chem. Tech.)	.. Master of Science in Chemical Technology
M.E.	..	Mechanical Engineer, Master of Education, Master of Engineering, Military Engineer, Mining Engineer	M.Sc.D.	.. Master of Science in Dentistry
Me.	..	Maine	M.Sc.F.	.. Master of Science in Forestry
M.E.E.	..	Master of Electrical Engineering	M.Sc.(Med.)	.. Master of Science in Medicine
M.E.I.C.	..	Member of the Engineering Institute of Canada	M.Sc.N.	.. Master of Science in Nursing
Mems.	..	Members	M.S.D.	.. Doctor of Medieval Studies
M.Eng.	..	Master of Engineering (Dublin)	M.S.L.	.. Licentiate of Medieval Studies
M.F.	..	Master of Forestry	M.S.P.	.. Master of Science in Pharmacy
M.F.A.	..	Master of Fine Arts	M.S.W.	.. Master of Social Work
Mgr.	..	Monseigneur; Monsignor	M.Th.	.. Master of Theology
M.H.A.	..	Member of the House of Assembly	Mus.Bac. or B.	Bachelor of Music
M.H.R.	..	Member of the House of Representatives	Mus.Doc. or D.	Doctor of Music
M.I.C.E.	..	Member of the Institution of Civil Engineers	Mus.M.	.. Master of Music (Cambridge)
M.I.Chem.E.	..	Member of the Institution of Chemical Engineers	M.V.O.	.. Member of the Royal Victorian Order
Mich.	..	Michigan	M.V.Sc.	.. Master of Veterinary Science
M.I.E.A.	..	Member of the Institution of Engineers of Australia	Nat.	.. National
M.I.E.E.	..	Member of the Institution of Electrical Engineers	N.B.	.. New Brunswick
Mil.	..	Military	N.C.	.. North Carolina
M.I.Loco.E.	..	Member of the Institute of Locomotive Engineers	N.D.	.. North Dakota
M.I.Mar.E.	..	Member of the Institute of Marine Engineers	Neb.	.. Nebraska
M.I.(Mech.)E.	..	Member of the Institution of Mechanical Engineers	N.E.I.	.. Netherlands East Indies
M.I.Min.E.	..	Member of the Institution of Mining Engineers	Nev.	.. Nevada
M.I.M.M.	..	Member of the Institution of Mining and Metallurgy	N.H.	.. New Hampshire
Minn.	..	Minnesota	N.J.	.. New Jersey
Miss.	..	Mississippi	N.M.	.. New Mexico
M.I.P.E.	..	Member of the Institution of Production Engineers	N.S.	.. Nova Scotia
M.I.Struct.E.	..	Member of the Institution of Structural Engineers	N.S.W.	.. New South Wales
M.I.T.	..	Massachusetts Institute of Technology	N.U.I.	.. National University of Ireland
M.L.	..	Master of Laws	N.W.F.	.. North-West Frontier
M.L.A.	..	Member of the Legislative Assembly	N.Y.	.. New York
M.L.C.	..	Member of the Legislative Council	N.Z.	.. New Zealand
M.Litt.	..	Master of Letters	O.	.. Ohio
M.L.S.	..	Master of Library Science	O.B.E.	.. Officer of (the Order of) the British Empire
M.M.S.A.	..	Master of Midwifery of the Society of Apothecaries	O.E.E.C.	.. Organisation for European Economic Co-operation
M.Mus.	..	Master of Music	O.F.S.	.. Orange Free State
Mo.	..	Missouri	Okla.	.. Oklahoma
Mont.	..	Montana	O.M.	.. Member of the Order of Merit
M.P.	..	Member of Parliament	Ont.	.. Ontario
M.P.H.	..	Master of Public Health	O.P.	.. Order of Preachers (Dominicans)
M.Ph.	..	Master of Philosophy (U.S.A.)	Ore.	.. Oregon
M.R.A.S.	..	Member of the Royal Asiatic Society	O.R.S.T.O.M.	.. Office de la Recherche Scientifique et Technique Outre Mer
M.R.C.P.(E.)	..	Member of the Royal College of Physicians (Edinburgh)	Oxon.	.. Of Oxford University
M.R.C.S.(E.)	..	Member of the Royal College of Surgeons (Edinburgh)	Pa.	.. Pennsylvania
M.R.C.V.S.	..	Member of the Royal College of Veterinary Surgeons	Parl.	.. Parliament; Parliamentary
M.R.I.	..	Member of the Royal Institution	P.C.	.. Privy Councillor
M.R.I.A.	..	Member of the Royal Irish Academy	Pd.B.	.. Bachelor of Pedagogy
M.R.S.A.	..	Member of the Royal Society of Arts	Pd.D.	.. Doctor of Pedagogy
			Pd.M.	.. Master of Pedagogy
			P.E.I.	.. Prince Edward Island
			P.E.N.	.. Poets, Playwrights, Essayists, Editors and Novelists (Club)
			Ph.B.	.. Bachelor of Philosophy
			Ph.D.	.. Doctor of Philosophy
			Ph.G.	.. Graduate in Pharmacy

ABBREVIATIONS

Ph.L.	..	Licentiate of Philosophy	Sc.D.	..	Doctor of Science
Ph.M.	..	Master of Philosophy	S.C.D.	..	Doctor of Commercial Science
P.Q.	..	Province of Quebec	S.Dak.	..	South Dakota
P.R.A.	..	President of the Royal Academy	Sec.	..	Secretary
Pres.	..	President	S.I.S.T.E.R.	..	Special Institution for Scientific and Technological Education and Research
P.R.I.	..	President of the Royal Institute (of Painters in Water Colours)	S.J.	..	Society of Jesus
P.R.I.B.A.	..	President of the Royal Institute of British Architects	S.J.D.	..	Doctor of Juristic Science
Priv.Do.	..	Recognised teacher not on the regular staff	S.M.	..	Master of Science
Prof.	..	Professor	S.T.B.	..	Bachelor of Sacred Theology
P.R.S.	..	President of the Royal Society	S.T.D.	..	Doctor of Sacred Theology
P.R.S.A.	..	President of the Royal Scottish Academy	S.Th.L.	..	Sacrae Theologiae Lector (Reader or Professor of Sacred Theology)
Publs.	..	Publications	S.T.M.	..	Master of Sacred Theology
			Supt.	..	Superintendent
Q.C.	..	Queen's Counsel			
Q.H.P.	..	Honorary Physician to the Queen	T.D.	..	Territorial Decoration; Tealta Dáil (Member of the Dail), Teaching Diploma
Que.	..	Quebec	Tenn.	..	Tennessee
			Tex.	..	Texas
R.A.	..	Royal Academy; Royal Academician	Th.B.	..	Bachelor of Theology
R.A.C.P.	..	Royal Australasian College of Physicians	Th.D.	..	Doctor of Theology
R.A.C.S.	..	Royal Australasian College of Surgeons	Th.M.	..	Master of Theology
R.A.F.	..	Royal Air Force	T.U.C.	..	Trades Union Congress
R.A.M.	..	Royal Academy of Music			
R.A.S.	..	Royal Astronomical (Asiatic) Society	U.K.	..	United Kingdom
R.B.A.	..	Royal (Society of) British Artists	U.N.	..	United Nations
R.C.A.	..	Member of the Royal Cambrian Academy; Member of the Royal Canadian Academy	U.N.A.	..	United Nations Association
R.D.I.	..	Royal Designer for Industry	UNESCO	..	United Nations Educational, Scientific and Cultural Organisation
Rep.	..	Representative; Represented	UNICEF	..	United Nations International Children's Emergency Fund
resgnd.	..	resigned	Univ.	..	University
ret'd.	..	retired	U.N.R.W.A.	..	United Nations Relief Works Agency
Rev.	..	Reverend	U.P.	..	Uttar Pradesh (United Provinces)
R.G.S.	..	Royal Geographical Society	U.S.A.	..	United States of America
R.Hist.S.	..	Royal Historical Society	U.S.S.R.	..	Union of Soviet Socialist Republics
R.I.	..	Rhode Island; Royal Institute (of Painters in Water Colours)			
		Royal Institution	Va.	..	Virginia
R.I.B.A.	..	Royal Institute of British Architects	V.C.	..	Victoria Cross
R.I.C.S.	..	Royal Institution of Chartered Surveyors	V.D.	..	Volunteer Officers Decoration, Victorian Decoration
R.M.P.A.	..	Royal Medico-Psychological Association	Vols.	..	Volumes
R.N.	..	Royal Navy	V.R.D.	..	Royal Naval Volunteer Reserve Officers Decoration
R.O.I.	..	Royal Institute of Oil Painters	Vt.	..	Vermont
R.P.	..	Member Royal Society of Portrait Painters			
R.S.A.	..	Royal Scottish Academy	W.A.	..	Western Australia
		Royal Society of Arts	Wash.	..	Washington (State)
R.S.C.	..	Royal Society of Canada	W.E.A.	..	Workers' Educational Association
R.S.W.	..	Royal Scottish Society of Painters in Water Colours	Wis.	..	Wisconsin
Rt. Hon.	..	Right Honourable	W Va.	..	West Virginia
Rt. Rev.	..	Right Reverend	Wyo.	..	Wyoming
R.W.S.	..	Royal Society of Painters in Water Colours			
			Y.M.C.A.	..	Young Men's Christian Association
S.C.	..	South Carolina; Senior Counsel (Republic of Ireland)	Y.W.C.A.	..	Young Women's Christian Association
SCAP	..	Supreme Command Allied Powers			
Sc.B.	..	Bachelor of Science			

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UNESCO

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION

AIMS AND FUNCTIONS

(Article 1 of Unesco Constitution)

The purpose of the Organisation is to contribute to peace and security by promoting collaboration among the nations through education, science, and culture in order to further universal respect for justice, for the rule of law, and for the human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language, or religion, by the Charter of the United Nations.

To achieve Unesco's purpose, the General Conference adopts at its biennial sessions a basic programme which stresses the main ideas underlying the aims of the Organisation and gives coherence to the detailed work plans. While the latter naturally vary from year to year, the basic programme covers the policies and main lines of work, with little change except of emphasis on this or that sector. Thus from 1965 onwards the scientific sectors (both stimulation of research and application of science to development) are to receive a priority second only to that accorded to educational activities in 1962.

The chief tasks of Unesco, as defined in its basic programme, are as follows:

1. To eliminate illiteracy and encourage universal free and compulsory education;
2. to obtain for each person an education conforming to his aptitudes and to the needs of society, including technological training and higher education;
3. to promote, through education, respect for Human Rights throughout all nations;

4. to overcome the obstacles to the free flow of persons, ideas, and knowledge between the countries of the world;

5. to promote the progress and utilisation of science for the benefit of all mankind;

6. to focus the social sciences on the study of particular social questions for the benefit both of the general public and of governments;

7. to assure the preservation of the world's inheritance of books, works of art and monuments of history and science, to make this cultural heritage known and available to all, and to promote mutual appreciation of differing cultural values;

8. to advance through the media of mass communication the causes of truth, freedom, and peace;

9. to bring about better understanding among the peoples of the world and to convince them of the necessity of co-operating loyally with one another in the framework of the United Nations;

10. to provide clearing-house and exchange services in all its fields of action, together with technical aid to nations and peoples in emergencies.

MEMBER STATES

(November 1st, 1964)

Afghanistan	Ecuador	Liberia	Somalia
Albania	El Salvador	Libya	Spain
Algeria	Ethiopia	Luxembourg	Sudan
Argentina	Finland	Madagascar	Sweden
Australia	France	Malawi	Switzerland
Austria	Gabon	Malaysia	Syria
Belgium	German Federal Republic	Mali	Tanganyika
Bolivia	Ghana	Mauritania	Thailand
Brazil	Greece	Mexico	Togo
Bulgaria	Guatemala	Monaco	Trinidad and Tobago
Burma	Guinea	Mongolian People's	Tunisia
Burundi	Haiti	Republic	Turkey
Byelorussia	Honduras	Morocco	Uganda
Cambodia	Hungary	Nepal	Ukraine
Cameroun	Iceland	Netherlands	U.S.S.R.
Canada	India	New Zealand	United Arab Republic
Central African Republic	Indonesia	Nicaragua	United Kingdom
Ceylon	Iran	Niger	United States of America
Chad	Iraq	Nigeria	Upper Volta
Chile	Ireland	Norway	Uruguay
China, Republic of (Taiwan)	Israel	Pakistan	Venezuela
Colombia	Italy	Panama	Viet-Nam, Republic of
Congo (Léopoldville)	Ivory Coast	Paraguay	Yemen
Congo (Brazzaville)	Jamaica	Peru	Yugoslavia
Costa Rica	Japan	Philippines	Zambia
Cuba	Jordan	Poland	
Cyprus	Kenya	Rumania	
Czechoslovakia	Korea, Republic of	Rwanda	Associate Members
Dahomey	Kuwait	Saudi Arabia	British East Caribbean
Denmark	Laos	Senegal	Group
Dominican Republic	Lebanon	Sierra Leone	Mauritius
			Qatar

REGULAR PROGRAMME

1. DEVELOPMENT OF INTERNATIONAL CO-OPERATION

Unesco aims to maintain, increase and diffuse knowledge and to encourage co-operation among the nations in all branches of intellectual activity. The League of Nations set up its International Committee on Intellectual Co-operation for the same purpose, and Unesco took over this heritage in an attempt to restore contacts broken by the Second World War. It was realised that an effective and economical method would be, first, to support existing specialist organisations, and second to encourage individual scientists, scholars, writers and artists.

The natural sciences was the first sphere in which Unesco was able to co-operate with an already firmly established body of scientific associations. Unesco's success in this field prompted action where contacts at international level were less advanced. To achieve this a number of institutions were created: the International Council for Philosophy and Humanistic Studies, the International Theatre Institute, the International Music Council, the International Association of Plastic Arts. Unesco also decided to support the work of the International PEN and the International Union of Architects. The International Council of Archives was founded on the initiative of Unesco. Financial aid is given to the International Council of Museums, the International Federation of Library Associations and the International Federation of Documentation.

In the field of social sciences, Unesco promoted the establishment of international bodies in such major

disciplines as sociology, political science, legal science and economics. Subventions have been granted to a few carefully-selected associations, including the International Economic Association, the International Statistical Institute, the International Sociological Association. The International Social Science Council and the International Committee for Social Sciences Documentation were also helped.

In the field of education, financial assistance has been given to the World Confederation of Organisations of the Teaching Profession, the International Association for Teachers' Federation, the International Association for Vocational Guidance, the World Organisation for Early Childhood Education, the New Education Fellowship, etc. A major step was the creation in 1950, with UNESCO's help, of the International Association of Universities. Subventions have also been granted to the International Bureau of Education for its documentation services.

In the field of mass communication, Unesco has found that associations have more varied activities and less well defined programmes. It has founded the International Centre of Films for Children, the International Association for Mass Communication Research, the International Film and Television Council.

Unesco also organises seminars, international discussions and conferences, for example the International Conference of Artists held in 1952, the Conference on Radio-isotopes in Scientific Research held in 1957, the International Conference on Information Processing in June 1959, and the Intergovernmental Conference on Oceanographic Research in July, 1960.

2. IMPROVING DOCUMENTATION

These activities include the collection, analysis and diffusion of information and statistics, and the encouraging of other organisations to do similar work. Since 1948 this has been increasingly achieved through the Education Clearing House.

Unesco has also built up a documentation and information service on opportunities and facilities for study abroad. The annual publications *Study Abroad* and *Vacations Abroad* bring such facts to a wide public.

The Clearing House in Mass Communications collects information on mass media techniques and the technical needs of mass media institutions.

In the field of culture Unesco has produced the *Index Translationum* and archives of colour reproductions of paintings. In the Social Sciences bibliographies have been produced in four major fields, sociology, political science, economics and social and cultural anthropology. Multilingual dictionaries and biographies are being prepared and attempts have been made to standardise techniques and terminologies. A study has also been made of scientific and technical dictionaries and a bibliography of monolingual glossaries has been produced.

Unesco also promotes the creation of scientific and technical documentation centres in order to meet the essential need of scientists and technicians for information on the work of their colleagues elsewhere.

Altogether, 36 national centres for the international exchange of publications are linked with Unesco. One of the chief aims of the International Centre for the study of the Preservation and Restoration of Cultural Property, newly set up in Rome, is to collect, analyse and distribute information concerning scientific and technical problems arising in the fields of preservation and restoration. Similarly the Documentation and Study Centre for the History of Art and Civilisation in Ancient Egypt is now in full operation.

3. SCHOOL EDUCATION

The Unesco programme for school education may be divided into five main parts, Free and Compulsory Education; the School Curriculum and Improvement of Education; Education for International Understanding and Co-operation; Vocational and Technical Education; and Higher Education. An essential concomitant to all these is the need for a programme of educational planning.

Forty-five per cent of the world's population of fifteen years old and over cannot read or write; forty-five per cent of the world's children of school age do not attend school. Of those who do attend school, many are poorly educated because of inadequate facilities, undertrained teachers and an outmoded curriculum. It is, in addition, realised that the need for humanistic studies and for education for international understanding has never been so great. Recent developments in science and industry have also created new problems in higher education or have accentuated old ones.

Free and Compulsory Education. For more than ten years Unesco has conducted a campaign to extend free and compulsory education to all children of primary school age. A series of international and regional conferences was organised; direct assistance was offered to Member States in the form of experts and of fellowships for national educators. The first major effort for training teachers was launched in 1957 as Unesco's Major Project for the Extension of Primary Education in Latin America. The Project concentrates upon teacher training and educational planning, and is now in full operation.

Three major enquiries into the educational needs of tropical Africa, the Arab-speaking States, and South and South-East Asia, were completed, as a result of which the General Conference, in December, 1962, deciding to continue giving priority to educational programmes, re-adopted programmes for the development of education in these areas, totalling \$8.8 million for 1963-64, in addition to a \$4 million emergency programme for Africa financed out of voluntary contributions, and to Special Fund activities (see below).

The School Curriculum and the Improvement of Education. In 1954 a programme for the Improvement of the School Curriculum was initiated by the creation of an international advisory committee, by the holding of regional seminars, by providing the services of experts, by disseminating information on mechanisms of curriculum revision, curriculum research, etc., by initiating an inquiry into the adaption of the school curriculum to the age and development levels of children. In 1960 Unesco completed an inquiry into the role and place of the humanities in school education. Two outside bodies are closely associated with UNESCO in this field: the International Bureau of Education at Geneva, and the Institute of Education at Hamburg.

Education for International Understanding and Co-operation. Unesco seeks to stimulate interest in educational activities by facilitating international exchanges of ideas among educational leaders and teachers, in aiding in the development of better methods and materials and in encouraging action within schools on many aspects of education for international understanding.

Vocational and Technical Education. Activity in this field has led mainly to the provision of services of experts, fellowships and equipment. Regional conferences and training courses on Vocational and Technical Education have recently been organised.

By an agreement reached in 1960 between UNESCO and the International Labour Office, two new international instruments have been completed, the UNESCO one dealing with technical education in school and the ILO one with vocational training after or out of school.

Higher Education. Work in this sphere is carried out mainly through the International Association of Universities, created in 1950. A scheme of collaboration on a large scale started in 1960 with some of the American Foundations on the subject of access to universities.

Educational Planning. As a background to all education, it has been increasingly realised that educational planning is unquestionably a necessity in the world today, not only because of the tremendous economic, technical and intellectual effort involved in all educational work, but for a more fundamental reason—because of the speed with which it is developing and its growing complexity. The General Conference authorised Unesco to furnish Member States with three forms of assistance in this field. Firstly, the Organisation advises governments on planning methods and procedures. Secondly, Unesco sends missions and experts to countries requesting them, to advise governments on appropriate machinery for their planning services and the preparation and implementation of their overall development plans. Since 1960, planning missions have been sent to some 30 countries and technical assistance in the form of expert services has been provided for about 50 countries. These activities will probably be increased in the future. Thirdly, Unesco assists in training national planning staff. To supervise this field of assistance, Unesco, with help from the World Bank and the Ford Foundation established an International Institute for Educational Planning in Paris, which started work in early 1964 with the basic aim of helping nations accelerate their economic and social progress through improved educational planning.

4. EDUCATION OUTSIDE SCHOOL

The work in this group of activities is divided into three sections: fundamental education, education of adults, and the development of youth activities.

Fundamental Education (Community Development). The main effort is directed towards those people who have not had the opportunity to go to school. Fundamental education aims at imparting the minimum knowledge and skills that people need to help themselves to improve their standard of living and to take a productive part in the social and economic life of their community. The basic need is to combat ignorance, which extends over half the world's population and is instrumental in breeding disease, poverty and lethargy.

Two regional fundamental education centres have been set up: one for Latin American States at Patzcuaro, Mexico, established in 1951, the other for Arab States at Sirs-el-Layyan, Egypt, established in 1955. Unesco has helped in setting up national expert training centres in a number of countries and also co-operates in many fundamental and adult education projects undertaken by Member States in Asia, Africa, Latin America and the Arab States.

Adult Education. The aim is to foster education, not only at school but throughout life. Unesco assists Member States and appropriate international organisations in the development of adult education activities by: co-operating to set up national and regional seminars; sending field missions to make surveys and advise on projects; publishing reports on projects and activities.

During 1964, Unesco sponsored two regional conferences on the planning and organisation of literacy programmes in Africa and in the Arab States, where the vital importance was stressed of all forms of out-of-school education in a rapidly changing world. During 1964, also, plans for an experimental programme in mass literacy, which would prepare the way for a World Campaign for Universal Literacy, were recommended by a committee of experts on literacy set up to advise Unesco's Director General, who had been charged by the UN General Assembly to explore the possibility of such a world campaign. Among recommendations was one that three-year pilot projects in six to eight selected countries should be undertaken by Unesco as part of the first of three consecutive phases in a long-term programme to achieve universal literacy.

Youth Work. The work is concentrated on assisting Member States and appropriate international organisations and institutions in the development of youth education for social responsibility and international understanding and co-operation. The Section supplies information and brings groups interested in the same problems into contact with each other. It also sponsors international voluntary work camps and an annual conference of work camp organisers. Another important interest is the Unesco Youth Institute at Gauting, Germany. The Institute is an international meeting place where conferences are organised to study youth activities. During 1964, Unesco organised an international youth conference at Grenoble, France, attended by delegates from 73 Member States and the first inter-governmental conference ever held on youth problems.

5. AID TO SCIENTIFIC RESEARCH IN THE NATURAL SCIENCES AND THEIR APPLICATION TO DEVELOPMENT

These activities cover the following fields: basic sciences, earth sciences (astronomy and general geophysics, hydrology, oceanography, physics of the earth's crust, geological sciences, soil sciences, ecological studies and

conservation of natural resources); life sciences (brain research, cell and molecular biology, microbiology, participation in basic research on cancer).

The exchange of ideas and results is encouraged by congresses and documentation, and the award of grants for study tours and missions. More concrete action was provided in the specific subjects mentioned above. Three main methods have been devised to produce the desired results. The first is to establish for each subject a new intergovernmental body, whether regional or international, which conducts its scientific work on its own initiative. The European Organisation for Nuclear Research and the International Computation Centre are examples of bodies of this kind. The second is to set up, within Unesco itself, an administrative co-ordinating body which possesses certain financial resources and acts on the scientific advice of a group of experts selected for that purpose: an example is provided by the new Inter-Governmental Oceanographic Commission set up in 1961, with a permanent staff within the Secretariat to service it. The third is to provide assistance for the establishment and operation of a non-governmental body responsible for achieving the co-operation desired, e.g. the International Brain Research Organisation set up in 1960.

Advisory Committees of experts of world-wide repute have been set up to administer the Arid Zone, the Marine Sciences and Humid Tropics Research Projects. Among the recent or new initiatives undertaken by Unesco, or those to which the Organisation provides its active support include the International Years of the Quiet Sun, the World Magnetic Survey (a continuing project of the International Geophysical Year), the International Hydrological Decade, as well as the International Indian Ocean Expedition, the International Co-operative Investigations of the Tropical Atlantic, and the Co-operative Study of the Kuroshio. Furthermore, in the field of seismology, Unesco has set up a system of emergency missions to send experts to the affected areas immediately after earthquakes have occurred.

General advice has also been given by short-term missions on the establishment of national scientific research centres.

The most important activity has been the creation *in toto* of institutions and services previously almost non-existent. It has been possible in this way to strengthen geophysical and seismological observatories, and geological and hydro-geological services.

The application of science and technology according to the needs of developing countries will henceforth take a large place among the scientific activities of Unesco: technical and economic evaluation of these needs and direct aid which could be provided to Member States are the basic features of this programme.

6. APPLIED SOCIAL SCIENCES

The Social Science programme makes a clear distinction between the promotion of pure research and learning in the field of the social sciences and the use of the social sciences for solving social problems. The promotion of original research has also taken place into the attitudes of the people of one country towards people of other countries and into the roots of tension in local communities within different societies. On the other hand, a broad study of principal research trends throughout the world in the social and human sciences is in progress under Unesco's direction.

An inter-disciplinary programme has been constituted on the three great problems of our time: respect for human rights and the struggle against racial prejudice, the

economic and social problems of newly-independent countries, the economic and social consequences of disarmament.

The analysis of the role of education, science, technology and information in economic development, pursued methodically, will continue to furnish the data necessary for the operational activities of Unesco and other international organisations, as well as the programme of statistical analysis and human resources assessment.

7. PRESERVATION OF THE CULTURAL HERITAGE OF MANKIND

Activity in this section is directed to the conservation and protection of the world's inheritance of books, works of art and monuments of history and science. Encouragement is also given to the exchange of publications, objects of artistic and scientific interest and other materials of information. A World Campaign for Monuments was launched by Unesco in 1964.

The protection of cultural property, historic monuments and of museum objects, archives, libraries, etc. during war is sought through the International Convention for the Protection of Cultural Property in the Event of Armed Conflict, signed at The Hague in 1954. Fifty-two Member States are parties to this Convention.

An International Centre for the Study of the Preservation and Restoration of Cultural Property has been established in Rome. A manual on the protection of cultural property has been published which deals with techniques for preservation and conservation. Since 1955, missions have advised on the preservation of culture in Peru, Yugoslavia, the Lebanon, Syria, Iraq, Israel, Egypt, Jordan, Iran, Pakistan, Afghanistan, Ecuador and the Sudan. International Seminars on Arts and Education have also been held since 1950 and two International Societies have been launched—one for Education through Art and the other for Music Education.

The International Campaign to save the Monuments of Egyptian and Sudanese Nubia launched in February, 1960, by Unesco, achieved almost total success in demonstrating the world's cultural solidarity. At the present time, the archaeological survey in the areas that will be inundated after the construction of the new Aswan dam is largely completed, while the dismantling of the threatened temples and monuments is being completed. The operation for safeguarding the temples of Abu-Simbel has begun.

8. MUTUAL APPRECIATION OF CULTURAL VALUES

The aim is to encourage a better mutual knowledge of the cultures of different peoples. In this way it is hoped to lay the foundations of real international understanding necessary for maximum peaceful co-operation among peoples.

The ninth session of Unesco's General Conference (New Delhi, 1956) established a ten-year major project aimed at developing the "Mutual Appreciation of Eastern and Western Cultural Values". The scheme aims to break down the barriers to the flow of information and ideas between the orient and occident. It has stimulated a very large number of cultural activities of an exchange nature throughout the world.

Unesco appointed a Commission in 1951 to prepare the publication of a history of the scientific and cultural development of mankind. The first two volumes, dealing with pre- and proto-history, were published in London in May 1963. A quarterly *Journal of World History* is published by the Commission.

The department sponsors international circulation of masterpieces of the visual arts and of music. Exhibitions of reproductions representing the great periods of both Western and Eastern art are circulating in Member States.

The *Unesco World Art Series* albums, devoted to works of art not sufficiently known outside their countries of origin, are published in five languages. Catalogues listing high quality reproductions of paintings of all periods have been published for the guidance of students, teachers and the general public.

Under the auspices of the International Music Council a collection has been made of recordings of traditional and contemporary music of all continents.

Great works representative of the genius of different people are translated and published. Translations of works from twenty-six different literatures have so far been made, chiefly into English and French.

9. FREE FLOW OF INFORMATION

Among the principal methods used are: sponsorship of international agreements; proposals to reduce telecommunication, postal, transport and tariff obstacles to the flow of information; administration of coupon schemes designed to overcome currency barriers; action to improve the techniques and expand the means of communication; the publication of reports and studies focusing public attention on obstacles to the free flow of information.

The underlying reason for Unesco's action in this field is that the dearth of communication facilities in large areas of the world, a maze of non-political restrictions and the high cost of sending information from country to country constitute formidable obstacles to the creation of an enlightened public opinion. In short, it appears that nearly 70 per cent of the world's peoples lack the means of being adequately informed of developments at home, let alone in other countries. "Adequate" facilities, according to a Unesco minimum standard accepted by the UN, consist of at least ten copies of a daily newspaper, five radio receivers and two cinema seats for every 100 persons. More than 100 countries and territories are below this minimum. Thus, for millions of people freedom of information, guaranteed by the universal Declaration of Human Rights, is far from being a reality.

Here are some of the results achieved:

1. Two international Agreements have been sponsored by Unesco: the Agreement on the Importation of Educational, Scientific and Cultural Materials and the Agreement for Facilitating the International Circulation of Visual and Auditory Materials of an Educational, Scientific and Cultural Character.

2. Proposals have been submitted to international conferences in the telecommunication, postal, transport and trade fields. Substantial concessions have been made in the rates and facilities offered.

3. Studies have been published such as *World Communications, Books for All, Trade Barriers to Knowledge, Transmitting World News and Mass Media and National Development*, which have spurred national efforts to reduce obstacles to the flow of information.

4. Member States have taken steps to facilitate the movement of persons engaged in educational, scientific and cultural activities.

5. Unesco's Coupon Schemes have helped to remove currency conversion obstacles, enabling individuals or organisations to purchase foreign books, films and other information materials and to pay for educational travel abroad.

In addition, Unesco has studied the means of ensuring that technological advances in communication should be

applied to promote the free flow of information on the basis of a study of the use of space communication. To advance Unesco's aims, a world conference on communications in 1963 urged that new telecommunication techniques should be employed in a way which will ensure their most effective use for communication between peoples.

Unesco has also provided limited direct aid and planned and conducted a series of seminars and experimental activities designed to improve the professional competence of those working in the mass media. Under the UN Expanded Programme for Technical Assistance, Unesco has for several years sent out aid missions to help in the setting up, improvement and expansion of local news agencies, newspapers, as well as radio, film and TV services. In 1964, a mission assisted Uganda in the creation of a national film unit; another helped launch a pilot project in Senegal for the integrated use of audio visual aids in adult education; aid was continued to the Latin American Institute for educational films, and similar missions were at work in Pakistan, Libya and other countries.

A long-term programme has been drawn up on the basis of regional meetings for Africa, the Arab States, Asia and Latin America to develop the press, radio, films and television in the developing countries. This programme was endorsed by the General Assembly of the UN as a part of the UN Development Decade. Unesco has also organised meetings of television and radio producers and regional training courses in broadcasting techniques. The first meeting on the introduction and development of television in Africa was held in 1964. The purpose of this meeting was to examine the organisational and financial problems of TV in African countries; indicate the potential contribution of the medium to the social, educational and cultural development of African countries; and pave the way for the systematic development of TV based on the needs and conditions of the countries of Africa. Unesco has also sought to promote the establishment of regional centres for the training of teachers of journalism. The first such centre began operating in 1951 at Strasbourg University, and a second centre was opened in Ecuador in 1960. Others are planned for Asia and Africa.

Tariff, postal and transport revenues waived each year as a result of action taken by Unesco are already at least equal in amount to the Organisation's total annual budget. Member States have also simplified administrative procedures affecting the international circulation of educational materials. Some \$30,000,000 has been made available by Unesco's Coupon Schemes for the importation of books, films and scientific equipment.

10. "STUDY ABROAD"—THE INTERNATIONAL TRAINING OF SPECIALISTS

The programme has been carried out through three main lines of activity:

1. A programme of documentation to reveal the extent and nature of activities of governments and other agencies in the field.
2. A programme to improve the planning and administration of international training programmes.

3. A programme of training specialists in Unesco fields of interest, through awards of fellowships for study abroad, and the organisation of special courses and other measures.

Statistical documentation on foreign students in institutions of higher learning provided by Unesco has given governments and other agencies more complete information than has ever before been available on the scale of international training and study opportunities. New approaches to the appraisal of needs for international training have been developed. Work has also advanced on developing an evaluative approach to the actual administration of programmes, so that planners and administrators may develop certain simple techniques by which to judge the effectiveness of their planning and administration, and the ultimate results of their work. Since 1948 some 8,000 fellowships have been awarded in various fields for periods of study abroad. These fellowships have enabled persons, who are already specialists in their field, to obtain additional general or technical training abroad for periods of four to nine months—longer in exceptional cases. Fellowships have played an important role in training local "counterparts" to take over responsibilities from experts sent abroad for limited periods.

In some countries field experts have organised training centres and courses as a means of passing on their specialised knowledge to nationals of the countries concerned.

Continuing efforts are made by Unesco to keep in touch with former fellows and there is much evidence to show that many former fellows are making valuable contributions, through the introduction of new techniques and knowledge, to the projects for which they have been trained.

Since 1948 Unesco has published a yearly handbook *Study Abroad* which currently lists over 170,000 individual opportunities for subsidised travel and study in other countries. In addition, from 1964 Unesco began publication of the *Unesco Handbook of International Exchanges* with information on national and international agencies operating exchange programmes in the fields of education, science and culture.

11. HUMAN RIGHTS

The universal rights (United Nations Declaration of Human Rights, 1948) of all individuals to education, an enjoyment of the arts and to a share in scientific advancement and its benefits, come directly within Unesco's competence. In addition to efforts already outlined, Unesco has, in this field, secured the Universal Copyright Convention (signed by 40 States, Geneva, 1952), and at the present time 55 States are parties to this instrument which came into force on September 16th, 1955. A series of reports has been prepared on the subject of education for women, and studies have been made of the role of educated women in Africa and Asia. The General Conference, at its eleventh session (Paris, 1960), adopted a Convention and Recommendation against discrimination in education, which came into force on May 22nd, 1962. France and Israel deposited instruments of ratification in 1961, and 13 other countries, including the United Kingdom and U.S.S.R., did so in 1962, bringing the total number of states party to it to 15.