EUROPEAN REVIEW

INTERDISCIPLINARY JOURNAL OF THE ACADEMIA EUROPAEA

- * The Crisis of Progress
- * The History of Card Games
- * Revival of the Concept of the Cold Prehistory of Life
- ★ De la Biologie à L'Ethique les Comités D'Ethique de Biologie
- * Swords into Ploughshares: Co-operation in Conversion

FOCUS—Science of Materials

- * Science of Materials
- * The Importance of Being Imperfect
- * Glass and the Virtue of Disorder
- * Cork and Corks
- * Crystallinity in Polymers: an Historical View

VOLUME 1 NUMBER 2 APRIL 1993 EURREK 1(2) 117-206 (1993)

ISSN 1062-7987







EDITOR-IN-CHIEF

Arnold Burgen
Department of Pharmacology
Tennis Court Road
University of Cambridge
Cambridge, CB2 1QJ
UK

ASSOCIATE EDITORS

Robert Cahn

Cambridge University, Department of Material Sciences and Metallurgy, Pembroke Street, Cambridge, CB2 1QZ, UK

Alexis Jacquemin

16, Avenue Ptolémée, 1180 Brussels, Belgium

Henri Korn

Institut Pasteur, Laboratoire de Neurobiologie Cellulaire, Inserm U.261, 25 rue du Dr Roux, 75015 Paris, France

Henk Wesseling

Institute for the History of European Expansion, PO Box No 9515, 2300 RA Leiden, The Netherlands

Barbara Wright

Trinity College, Department of French, Arts Building, Dublin, Ireland

AIMS AND SCOPE

The European Review is an Interdisciplinary Review Journal of the Academia Europaea. The contents reflect the broad range of disciplines included within the Academia, as well as its comprehensive European membership. The review will thus include articles covering a wide range of topics written so as to make them accessible to readers from other disciplines. Each issue will include a special section focused on a particular topic. The articles will be by authors mostly located in Europe and some will relate to specifically European questions.

The Editors welcome submissions to the Review.

ACADEMIA EUROPAEA

The Academia Europaea was established in 1988 to bring together scholars from across Europe, East and West, of all academic disciplines. It has already proved to be an admirable medium for tackling problems on a Europe wide basis and especially on an interdisciplinary basis—bringing together scholars from disciplines that would be unlikely to meet otherwise. It organizes symposia at annual meetings which move around Europe and which have covered subjects like the Rights of Minority Groups, the Image of Science, the Study of the Human Genome, Population Migration, and the Search for Meaning in Contemporary Life. It has also established study groups, the first of which has published its findings in a book on 'Schooling in Contemporary European Society', other studies are in progress on Psychological Problems of Youth in a Changing Europe, Energy Forecasting, Higher Education, and Risk Assessment in Relation to Atmospheric Changes.

It can be seen that the Academia Europaea has a wide perspective and this is reflected in its new journal the *European Review*.

The Academia is an independent organization based in London.

Advertising: For details contact-

U.K. and Europe: Michael J. Levermore, Advertisement Sales, John Wiley & Sons Ltd, Baffins Lane, Chichester, Sussex PO19 1UD, England (Telephone 0243 770350)

North America: Dora Castiblanco—Advertisement Supervisor, John Wiley & Sons Inc., 605 Third Avenue, NY 10158 (Telephone 212 850 6289, telex 12-7063, fax 212 850 6088)

To subscribe: European Review: the Interdisciplinary Journal of the Academia Europeae (ISSN 1062-7987) is published quarterly by John Wiley & Sons Ltd, Baffins Lane, Chichester, Sussex, England. 1993 subscription prices: US\$175.00, bona fide personal subscriptions to UK £47.00; elsewhere US\$85.00; Academia Europeae members subscriptions, UK £35.00; elsewhere US\$60.00. Air freight and mailing in the U.S.A. by Publications Expediting Services, Inc., 200 Meacham Avenue, Elmont, NY 11003. Orders should be addressed to: Subscriptions Department, John Wiley & Sons Ltd, Baffins Lane, Chichester, Sussex PO19 1UD, England. Copyright © 1993 by John Wiley & Sons Ltd. Typeset in the U.K. by KEYWORD Publishing Services Ltd., London. Printed and bound in Great Britain by BPCC Wheatons, Exeter. Printed on acid-free paper.

U.S.A. POSTMASTER: Send address changes to European Review: the Interdisciplinary Journal of the Academia Europeaa c/o Publications Expediting Services Inc., 200 Meacham Avenue, Elmont, NY 11003.

Contents

VOLUME 1 NUMBER 2

APRIL 1993

The Crisis of Progress	
A. TOURAINE	117
The History of Card Games M. DUMMETT	125
Revival of the Concept of the Cold Prehistory of Life V. I. GOLDANSKII	137
De la Biologie à L'Ethique les Comités D'Ethique de Biologie J. BERNARD	149
Swords into Ploughshares: Co-operation in Conversion V. S. ARUNACHALAM	157
FOCUS—Science of Materials	
Science of Materials R. CAHN	167
The Importance of Being Imperfect A. COTTRELL	169
Glass and the Virtue of Disorder J. ZARZYCKI	177
Cork and Corks M. A. FORTES	189
Crystallinity in Polymers: an Historical View G. ALLEN	197

Indexed or abstracted by 'GEOBASE', 'Geographical Abstracts: Human Geography'

EURREK 1(2)117-206(1993) ISSN 1062-7987