TRACTRIX

Yearbook for the History of Science Medicine, Technology & Mathematics

Vol. 3 1991. Amsterdam/Atlanta GA 1991. 204 pp. ISSN: 0924-0829. Subscriptions: The price of Tractrix is Hfl. 67,—/US-\$ 33.50 for institutions, and Hfl. 35,—/US-\$ 17.50 for individual subscribers who place their orders directly with the publishers (postage Hfl. 7,—/US-\$ 3.50).

Contents: ARTICLES. Joella G. Yoder: Christiaan Huygens' great treasure. Maarten Franssen: The ocular harpsichord of Louis-Bertrand Castel: the science and aesthetics of an eighteenth-century cause célèbre. Peter de Clercq: Exporting scientific instruments around 1700: the Musschenbroek documents in Marburg. Harry Lintsen and Rik Steenaard: Steam and polders, Belgium and the Netherlands, 1790-1850. Anne C. van Helden: The age of the air-pump. ESSAY REVIEWS. Edward G. Ruestow: Of a man and his microscopes: widening the perspective on early modern science. Henk J.M. Bos: Enjoying genius. Karel Davids: Follow the actors? Some recent Dutch studies on the development of science and technology.



USA/Canada: Editions Rodopi, 233 Peachtree Street, N.E., Suite 404, Atlanta, Ga. 30303-1504, Telephone (404) 523-1964, only USA 1-800-225-3998, Fax (404) —522-7116

And Others: Editions Rodopi B.V., Keizersgracht 302-304, 1016 EX Amsterdam, The Netherlands. Telephone (020) — 622.75.07, Fax (020) — 638.09.48

Journal for General Philosophy of Science

Zeitschrift für allgemeine Wissenschaftstheorie

Editors:

Lutz Geldsetzer, Philosophisches Institut der Universität Düsseldorf, Germany, Gert König, Institut für Philosophie der Ruhr-Universität Bochum, Bochum, Germany

The Journal for General Philosophy of Science/ Zeitschrift für allgemeine Wissenschaftstheorie is a forum for the discussion of a variety of attitudes concerning the philosophy of science. It has as its subject matter the philosophical, especially methodological, ontological, epistemological, anthropological, and ethical foundations of the individual sciences. Particular emphasis is laid on bringing both the natural, the cultural, and the technical sciences into a philosophical context, within which the historical presuppositons and conditions of the current problems of the philosophy of science are also included in the discussion.

The Journal for General Philosophy of Science/ Zeitschrift für allgemeine Wissenschaftstheorie has already been in existence for over two decades. It has been successful in its attempt to serve as a forum that bridges the gap between the different sciences, especially the natural, cultural, and social sciences. One of its purposes is to discuss and contrast the common as well as the different specific methodological and philosophical foundations of the individual sciences, taking into account all currently relevant positions of the philosophy of science.

In recent years considerable insight has been gained into the problems of current philosophy of science by considering the historical dimension of the sciences. This is why more intensive efforts will be made in the future towards the integration of historical and systematic considerations.

Subscription Information 1SSN 0925-4560 1992, Volume 23 (2 issues) Subscription rate: Dfl.216.00/US\$110.00

P.O. Box 322, 3300 AH Dordrecht, The Netherlands P.O. Box 358, Accord Station, Hingham, MA 02018-0358, U.S.A.

Journal Highlight

KLUWER ACADEMIC PUBLISHERS



incl. postage and handling

Social Studies of Science

RECENT CONTENTS

Brain or Heart? The Controversy over the Concept of Death

Thomas Brante and Margareta Hallberg Biotechnology in the Twentieth Century Robert Bud

Sociology of Scientific Knowledge: A Reflexive Citation Analysis

Science Disciplines and Disciplining Science

Diana Hicks and Jonathan Potter

Origins of the Second Golden Age of Dutch Science after 1860: Intended and Unintended Consequences of Educational Reform

Bastiaan Willink

The 'Costs' of Institutional Isomorphism: Science in Non-Western Countries Yehouda A. Shenhav and David H. Kamens



Edited by David Edge

Social Studies of Science is a vital, responsive and continuing resource for all academics in the field, and for a wider range of readers interested in the analysis of modern society.

Published in February, May, August and November

Make sure you subscribe now! Use the order form below and save 20%

20% Discount Order Form THREE WAYS TO PAY! Send this order form to: Sage Publications CHEQUE!... I enclose a cheque (made payable to Sage Publications) 6 Bonhill Street, London EC2A 4PU, UK Tel: 071-374 0645 GIRO!... I have today paid by Or why not fax us your order on International Giro to A/c No 548 0353 071-374 8741? US Orders to: CREDIT CARD!... Please charge Sage Publications, PO Box 5096, Newbury my credit card Park. CA 91359, USA ☐ Mastercard ☐ Access ☐ Visa ☐ Yes! I want to subscribe to Social Studies □ Barclaycard □ American Express of Science at a 20% Discount ☐ Diner's Club ☐ Eurocard ☐ Individual Rate at £28(£35*)/ \$46(\$58*) Card Number __ ☐ Institutional Rate at £79(£99*)/ \$130(\$163*) *Usual rate Expiry Date _____ Name _ Address ___ _ Signature ___ - Date _ 1601

CLIO MEDICA

Vol. 22 — Essays in the History of Therapeutics. Edited by W.F. Bynum and V. Nutton. Amsterdam/Atlanta, GA 1991. 146 pp.

ISBN: 90-5183-266-4 Hfl. 65,—/US-\$ 32.50

The history of therapeutics has been central to the medical enterprise in all times and all places. It is also, as Guenter Risse points out in his introductory essay, a subject which is all too often neglected by historians. He analyses some of the reasons for this and urges historians to take this complex and important theme more seriously. The essays which follow range in chronology from antiquity to the 1980s and in geography from the Mediterranean Basin to the New World. They touch on such matters as diet and drugs, magic and surgery, orthodox and unorthodox approaches. What they share is an attempt to get beyond the easy dismissal of almost all therapeutics before the twentieth century as meaningless and harmful and to examine concrete dimensions of the therapeutic encounter in its social, professional, religious and scientific reverberations.

Contents: Guenter B. Risse: The History of Therapeutics. Vivian Nutton: From Medical Certainty to Medical Amulets: Three Aspects of Ancient Therapeutics. Luis Garcia-Ballester: Dietetic and Pharmacological Therapy: A Dilemma among Fourteenth-Century Jewish Practitioners in the Montpellier Area. Christa Habrich: Characteristic Features of Eighteenth-Century Therapeutics in Germany. Renate Wittern: The Origins of Homoeopathy in Germany. John Harley Warner: Science, Healing and the Physician's Identity: A Problem of Professional Character in Nineteenth-Century America. Ulrich Tröhler: 'To Operate or not to Operate?' Scientific and Extraneous Factors in Therapeutical Controversies within the Swiss Society of Surgery 1913-1988.



USA/Canada: Editions Rodopi, 233 Peachtree Street, N.E., Suite 404, Atlanta, Ga. 30303-1504, Telephone (404) 523-1964, only USA 1-800-225-3998, Fax (404) --522-7116 And Others: Editions Rodopi B.V., Keizersgracht 302-304, 1016 EX Amsterdam, The Netherlands. Telephone (020) -- 622.75.07, Fax (020) -- 638.09.48

Revue d'histoire des sciences

TOME XLIV - 3/4 — JUILLET-DÉCEMBRE 1991

PUBLIÉE AVEC LE CONCOURS DU CENTRE NATIONAL DES LETTRES
ET DU CNRS

La diffusion des sciences au XVIII^e siècle

SOMMAIRE

ARTICLES:

R. RAPPAPORT, Fontenelle interprets the earth's history; M.-F. Mortureux, De la ressemblance entre les mathématiques et l'amour dans les Entretiens de Fontenelle; A. Niderst, Les Lettres anglaises de Voltaire, une vulgarisation méthodique et imprudente; C. Cohen, Benoît de Maillet et la diffusion de l'histoire naturelle à l'aube des lumières; G. Artigas-Menant, La vulgarisation scientifique dans Le Nouveau Magasin français de Mme Leprince de Beaumont; H. Duranton, La diffusion d'une nouvelle histoire: les avatars de Clio au xviiie siècle; J. Mayer, Diderot et le calcul des probabilités dans l'Encyclopédie; C. Pouloin, La connaissance du passé et la vulgarisation du débat sur les chronologies dans l'Encyclopédie; R. Rey, La vulgarisation médicale au xviiie siècle: le cas des dictionnaires portatifs de santé.

DOCUMENTATION:

A. Debru, Hérophile, ou l'art de la médecine dans l'Alexandrie antique; N. Piepenbrock et al., L'enseignement médical dans les manuels scolaires en France aux xviie et xviiie siècles; J.-L. Gardies, La proposition 14 du livre V dans l'économie des Eléments d'Euclide.

NÉCROLOGIE:

R. Rey, J.-L. Fischer, Jacques Roger, historien des sciences (1920-1990).

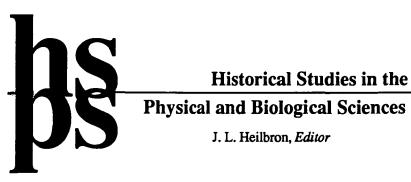
Direction-rédaction: Centre international de synthèse, 12, rue Colbert, 75002 Paris Tél.: 42 97 50 68

Administration-abonnements: Presses Universitaires de France, Département des revues, 14, avenue du Bois-de-l'Epine, BP 90, 91003 Evry Cedex

Tél. : (1) 60 77 82 05 - Télécopie : (1) 60 79 20 45 Télex : PUF 600 474 F - CCP 1302 69 C Paris

Abonnements - tarif 1992 (4 numéros): France: 370 FF - Etranger: 470 FF

Prix de ce numéro: 236 FF



Historical Studies in the

Volume	22,	Par	t 1
--------	-----	-----	-----

	Volume 22, 1 at t 1		
SEIYA ABIKO	On the chemico-thermal origins of special relativity		
MATTHIAS DÖRRIES	Prior history and aftereffects: Hysteresis and Nachwirkung in 19th-century physics		
J. L. HEILBRON	The contributions of Bologna to Galvanism		
ROBERT E. KOHLER	Systems of production: Drosophila, Neurospora, and biochemical genetics		
ALEKSEI KOZHEVNIKOV	Piotr Kapitza and Stalin's government: A study in moral choice		
M. DE MARIA, M. G. IANNIELLO, A. RUSSO	The discovery of cosmic rays: Rivalries and controversies between Europe and the United States		
☐ Enter my subscrip	tion to HSPS (2 issues) - Individuals: \$20; outside U.S. add \$4).		
☐ Payment enclosed	☐ Send invoice ☐ Charge my: ☐ MasterCard ☐ VISA		
Card #	Exp. date		
Signature			
Name			
Street			
City	StateZip		
Send orders to:	University of California Press, Journals Department 2120 Berkeley Way, Berkeley, CA 94720 hse2		

CAMBRIDGE History of Science

The Ant and the Peacock

Altruism and Sexual Selection from Darwin to Today

HELENA CRONIN

Foreword by JOHN MAYNARD SMITH

'In her racy and provocative way, Dr Cronin tells a story that sums up the essence of neo-Darwinism ...

Part detective story and part philosophical enquiry,

The Ans and the Peacock offers a paradox in every

paragraph ...'

Weekend Telegraph

£27.50 net HB 0 521 32937 X 504 pp. 1992

Nationalism and Internationalism in Science, 1880–1939

Four Studies of the Nobel Population ELISABETH CRAWFORD

Crawford's interesting book analyses the problems related to the nationalism and internationalism of science in Europe and in the USA. Her four studies examine critically: the upsurge of nationalism among scientists of warring nations, the effective use of Nobel prizes, the élite conception of science in USA. £27.95 net HB 0 521 40386 3 224 pp. 1992

Chance and Design

Reminiscences of Science in Peace and War ALAN HODGKIN

Chance and Design is a fascinating chronicle of Hodgkin's life: providing a glimpse into the world of Cambridge undergraduates in the thirties; the motivation behind his research into nerve conduction and his work on centimetre radar. The book concludes with the Nobel Prize ceremony in 1963. £40.00 net HB 0 521 40099 6 424 pp. 1992

Enlightenment Science in the Romantic Era

The Chemistry of Berzelius and Its Cultural Setting Edited by EVAN M. MELHADO and TORE FRÂNGSMYR

Jacob Berzelius (1779–1848) dominated the field of chemistry, animated the cultural life of his native Sweden and served as secretary of the Royal Swedish Academy of Sciences. This book brings the results of recent scholarship and offers an enhanced assessment of his originality and influence.

£30.00 net HB 0 521 41775 9 272 pp. 1992

The Professionalisation of Psychology in Nazi Germany

ULFRIED GEUTER

Translated by RICHARD HOLMES

The Professionalisation of Psychology in Nazi Germany was universally hailed as a benchmark work in history of psychology upon its publication in Germany. Now, ably translated by Richard Holmes, it is finally available in the English-speaking world.

The Janus Faces of Genius

The Role of Alchemy in Newton's Thought BETTY JO TEETER DOBBS

Professor Dobbs traces the evolution of Newton's thought in alchemy, religion and cosmology, as he struggled with the interwoven problems of the microscopic spirit of alchemy and the cause of the cosmic principle of gravitation. A landmark study of the 'founder of modern science', *The Janus Faces of Genius* is an important contribution to the history of science.

£30.00 net HB 0 521 38084 7 430 pp. 1992

Science as Public Culture

Chemistry and Enlightenment in Britain, 1760–1820

JAN GOLINSKI

This book makes a significant contribution to our understanding of the relations between scientific activity and processes of social and political change in a period of great transformations in chemistry and in the conditions of public life.

£32.50 net HB 0 521 39414 7 350 pp. 1992

Animals and Disease

An Introduction to the History of Comparative Medicine

LISE WILKINSON

This book presents an analysis of the origins and development of the study of infectious, epidemic diseases in animals and man and how the field of comparative medicine developed to provide a framework for solving related problems of worldwide disease control.

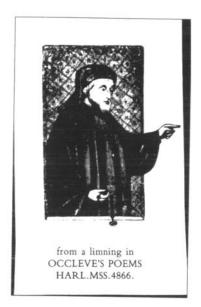
£40.00 net HB 0 521 37573 8 288 pp. 1992

For further information contact Science Publicity at the Cambridge address.

To order any Cambridge book call our 24 hour ordering service on 0223 325970



The Edinburgh Building, Cambridge CB2 2RU



THE CHAUCER HEAD

ANTIQUARIAN BOOKSELLERS (Established New Street, Birmingham in 1830)

RARE AND OUT-OF-PRINT BOOKS ON SCIENCE AND MEDICINE

Free Catalogues issued and enquiries for specific items welcomed.

Almery Garth, Marygate Lane, York, England YO3 7BJ Tel: 0904 622000 Fax: 0904 640072

THE BRITISH SOCIETY FOR THE HISTORY OF SCIENCE

Membership of the Society, which normally includes a subscription to *The British Journal for the History of Science*, is open to all persons approved by the Council of the Society and elected at an ordinary meeting. The annual subscription for the membership year 1991 is £18.50 (\$40.00) or £9.25 (\$25.00) for associate membership, which includes students at centres of higher education. There is an Introductory Offer for ordinary members who pay £14.00 (\$30.00) for the first year. Applications for membership should be made on a form which is available from the Society's Executive Secretary at the address below.

Meetings: The Society mounts an ambitious programme of meetings. The pattern is flexible, but includes a threeday summer meeting, usually held at a different British University or Polytechnic each year. About four other meetings, lasting for between one and three days, are held during the year, sometimes devoted to a clearly defined theme or an important anniversary, and often arranged in conjunction with other scholarly societies.

The British Journal for the History of Science is the official organ of the Society. All correspondence on the contents of the Journal should be addressed to the Editor, Dr J. H. Brooke, Department of History, University of Lancaster, Lancaster LA1 4YG, England. Books for review should be sent to the Reviews Editor, Dr John Henry, Science Studies Unit, University of Edinburgh, 21 Buccleuch Place, Edinburgh EH8 9LN.

Advertising: Contact the Journals Advertising Manager, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.

Other publications: BSHS Monograph Series is designed to allow the publication of monographic studies in the history of science quickly and cheaply. All correspondence on the subject of monographs, and any new suggestions for titles, should be sent to the Series Editor, Dr P. Weindling, Wellcome Unit for the History of Medicine, 45–47 Banbury Road, Oxford OX2 6PE, England. Monographs are available to members at a special price, post-free from the Society's Executive Secretary. Non-members may obtain them through bookshops, or post-free from the Executive Secretary. Titles are as follows:

- 2. The Letters of Georges Cuvier: A Summary Calendar. Ed. by Dorinda Outram. 1980. £4.50/\$10.00 (£3.50/\$8.00 to members).
- Rationality and Ritual: the Windscale Inquiry and Nuclear Decisions in Britain. By Brian Wynne. 1982. £7.00/\$15.00 (£5.00/\$11.00 to members).
- The Royal Society and Its Fellows 1660-1700: the Morphology of an Early Scientific Institution. By Michael Hunter. 1982, reprinted 1985. £9 00/\$19.00 (£6.50/\$14.00 to members).
- 5. Francis Bacon's Natural Philosophy: A New Source. A Transcription of Manuscript Hardwick 72A with Translation and Commentary. By Graham Rees, assisted by Christopher Upton. 1984. £7.90/\$17.00 (£5.60/\$12.00 to members).
- 6. Archives of the British Chemical Industry, 1750–1914: A Handlist. By Peter J. T. Morris and Colin A. Russell. Contributing editor John Graham Smith. 1988. £14.50/\$31.00 (£9.00/\$19.00 to members).
- 7. Index to the Scientific Correspondance of John William Dawson. By Susan Sheets-Pyenson. 1992. £20.00/\$44.00 (£12.00/\$26.00 to members).

Each year, the Society publishes a *List of Theses in History of Science* in British universities. This is available free to members, and at £3.00 (\$6.00) to non-members on request to the Executive Secretary. Standing orders are accepted from members or non-members who wish to receive the list regularly.

The Society's Newsletter, an informal publication edited by Dr Frank A. J. L. James, RICHST, The Royal Institution, 21 Albemarle Street, London W1X 4BS, appears in January, May and September each year. It is free to members, £6.00 (\$12.00) for institutions and non-members. The Society's Education Section also has a regular Newsletter, Education Forum, edited by Peter Ellis, 12 Belvedere St., Ryde, Isle of Wright, PO33 2JW.

Administrative business of the Society is handled by The Executive Secretary, Wing-Commander G. Bennett, 31 High Street, Stanford in the Vale, Faringdon, Oxfordshire SN7 8LH. The Society is registered in England as a Limited Company (No. 562208) and is a Registered Charity (No. 258854).

Copying: This journal is registered with the Copyright Clearance Center, 27 Congress Street, Salem, MA 01970. Organizations in the USA who are also registered with the C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to C.C.C. of the per-copy fee of \$5.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0007-0874/92 \$5.00+.00.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, Pennsylvania 19104, USA, is authorized to supply single copies of separate articles for private use only.

For all other use, permission should be sought from Cambridge or the American branch of Cambridge University Press.

Back volumes are obtainable as follows: Volumes 18-23: Wing-Commander G. Bennett, 31 High Street, Stanford in the Vale, Faringdon, Oxon SN7 8LH.

Printed in Great Britain by the University Press, Cambridge

The British Journal for the History of Science

BJHS

Volume 25 Part 3 No. 86

September 1992

- 299 Tropical medicine in nineteenth-century India
 MARK HARRISON
- Engineering Science in Glasgow: economy, efficiency and measurement as prime movers in the differentiation of an academic discipline

 BEN MARSDEN
- 347 Thomas Simpson and 'Newton's method of approximation'; an enduring myth
 NICK KOLLERSTROM
- 355 Book reviews
- 393 Books received

