# Editorial Board

Editor-in-Chief ROBERT C. POST

Assistant Editors
GARY B. KULIK
PAUL HANLE
Smithsonian Institution

Chief Advisory Editor
BROOKE HINDLE
Smithsonian Institution

Exhibits Editor
MERRITT ROE SMITH
Massachusetts Institute of Technology

Editorial Assistant
NANCY LONG
Smithsonian Institution
Advisory Editors

Bert S. Hall
John R. Harris
Robin Higham
David A. Hounshell
Alex Keller
John A. Kouwenhoven
Edwin T. Layton, Jr.
Samuel Lieberstein
A. Rahman

Wayne Rasmussen
Margaret W. Rossiter
Denise Schmandt-Besserat
Nathan Sivin
Derek J. de Solla Price
Paul Uselding
Joann Vanek
John H. White, Jr.

University of Toronto University of Birmingham Kansas State University University of Delaware University of Leicester Barnard College University of Minnesota St. John's University Council of Scientific and Industrial Research (India) U.S. Department of Agriculture University of California, Berkeley University of Texas-Austin University of Pennsylvania Yale University University of Illinois United Nations Secretariat Smithsonian Institution

Technology and Culture (ISSN 0040-165X) is published quarterly, January, April, July, and October, by The University of Chicago Press. Subscriptions: institutions, 1 year, \$35.00, 2 years \$63.00; individuals, 1 year \$25.00. Student rate (U.S.A.): 1 year, \$18.00 (letter from professor must accompany subscription). Single copies: institutions \$8.50, individuals \$6.00. Back issues are available from 1966 (vol. 7). Subscriptions include membership in the Society for the History of Technology. Checks should be made payable to Technology and Culture, The University of Chicago Press, Journals Division, P.O. Box 37005, Chicago, Illinois 60637; all business correspondence, including changes of address (old as well as new address), should be sent to that address.

Volumes 1-6 available from Kraus Reprints, Route 110, Millwood, New York 10546. All volumes are available in microfilm from University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106; in microfiche from Johnson Associates, Box 1017, Greenwich, Connecticut 06830, and J. S. Canner & Co., 49-65 Lansdowne Street, Boston, Massachusetts 02215.

Editorial correspondence, manuscripts, and books for review should be sent to Dr. Robert C. Post, National Museum of American History, Smithsonian Institution, Washington, D.C. 20560. Editorial office sponsored by National Museum of American History, Roger G. Kennedy, director. Published by The University of Chicago Press, Chicago, Illinois 60637; The University of Chicago Press Ltd., London W.C. 1. Second-class postage for Technology and Culture paid at Chicago.

@ 1982 by the Society for the History of Technology. All rights reserved.

#### THE SOCIETY FOR THE HISTORY OF TECHNOLOGY

The Society for the History of Technology was formed in 1958 to encourage the study of the development of technology and its relation with society and culture.

An interdisciplinary organization, the Society is concerned not only with the history of technological devices and processes but also with the relations of technology to science, politics, social change, the arts and humanities, and economics. The Society is incorporated in the State of Ohio as a nonprofit educational organization. Its membership is international.

Technology and Culture, the official publication of the Society, is included with membership in the Society. Membership is open to individuals, organizations, corporations, and institutions interested in the purposes and activities of the Society (see p. i for membership/subscription rates).

The Society also publishes a series of monographs and holds annual meetings, sometimes with related organizations.

Checks accompanying applications for membership should be sent to The University of Chicago Press, Journals Division, P.O. Box 37005, Chicago, Illinois 60637.

#### Officers

President: Brooke Hindle Secretary: Carroll W. Pursell, Jr. Vice-President: Melvin Kranzberg Treasurer: Russell I. Fries

### **Executive Council**

ARTHUR DONOVAN
DARYL M. HAFTER
BERT S. HALL
DAVID A. HOUNSHELL
REESE V. JENKINS
JUDITH A. McGAW
THEODORE Z. PENN
DEBORAH JEAN WARNER
JUDITH A. McGAW

# Advisory Council

HUGH G. J. AITKEN C. Stewart Gillmor LEONARD S. REICH JULIA BONHAM RICHARD HARTENBERG NATHAN ROSENBERG R. Angus Buchanan SAMUEL P. HAYS EMMA ROTHSCHILD RONDO CAMERON RICHARD G. HEWLETT ROBERT E. SCHOFIELD EDWARD E. DAUB Louis C. Hunter HOWARD SEGAL Susan Douglas JOHN KASSON BRUCE SINCLAIR A. Hunter Dupree ALEX G. KELLER PAUL USELDING EDWARD EZELL W. DAVID LEWIS WALTER G. VINCENTI James J. Flink ANTHONY F. C. WALLACE SVANTE LINDQVIST ROBERT FRIEDEL Otto Mayr CHARLES WEINER ELTING E. MORISON GEORGE WISE

## Corresponding Members

R. Angus Buchanan (England)

Maurice Daumas (France)

A. Rupert Hall (England)

Friedrich Klemm (Germany)

Joseph Needham (England)

Eugeniusz Olszewski (Poland)

### Past Presidents

ELMER BELT
JOHN G. BRAINERD
THOMAS P. HUGHES
BERN DIBNER
ROBERT P. MULTHAUF
PETER F. DRUCKER

EUGENE S. FERGUSON
THOMAS P. HUGHES
CYRIL STANLEY SMITH
DAVID B. STEINMAN
LYNN WHITE, JR.