



No. 8

October 1990

ISSN 1050-334X

PACIFIC CIRCLE NEWS

Network Enrichment. Two organizations--one on-going, the other nearing formation--promise to enhance the efforts of the Pacific Circle in advancing the history and social studies of Pacific science. The Social Sciences & Humanities Committee of the Pacific Science Association, currently under the active chairmanship of STEPHEN HILL (University of Wollongong), began publishing its *Action Newsletter* last year, and is on the way toward establishing a strong Pacific-wide network of scientists and others concerned with the impact of technology upon Pacific cultures. The major working group of the Committee at present is its "Technology and Culture" theme group. Members of the theme group will spearhead a symposium on "Technology and Cultural Change in the Pacific" at next year's XVII Pacific Science Congress (see page 4). Possibilities for collaborating on future conferences will be discussed at the Congress.

And in France, Patrick Petitjean (CNRS, Equipe REHSEIS) writes that plans are afoot for a "Science and Empires" Newsletter, following on the international colloquium of the same name which took place in Paris last April. Proceedings of the colloquium are being prepared for publication in the "Boston Studies" series. A partial listing of the program will be found on page 6. An account of the colloquium appeared in the July 1990 issue of the *History of Science Society Newsletter*.

Meanwhile, the Pacific Circle's own roster of correspondents continues to grow. Items for the *Newsletter*--on any and all aspects of the history and social studies of Pacific science--are of course welcome from all of our readers at any time. Deadline for *Newsletter* No. 9 is 1 February 1991.

FUTURE PACIFIC CIRCLE MEETINGS

25-28 October 1990. "Science in the Pacific: Darwinian Perspectives" will be session 25 of the annual meeting of the **History of Science Society** in Seattle. Chaired by FRITZ REHBOCK, the session will include the following papers:

PER
AC
2
19
PZA

"Darwin and the West Coast Exchange Network, by KEITH BENSON (Univ. of Washington); "Darwin's Correspondents in the Pacific" by JANET BELL GARBER (independent scholar); and "The Darwinian Enlightenment and New Zealand Politics" by JOHN STENHOUSE (Univ. of Otago). DAVID STODDART (Univ. of California-Berkeley) will be commentator. The Seattle meeting, with local arrangements by KEITH BENSON and program by TIM LENOIR and PETER GALISON, will be an exceptionally large one and promises a number of innovative sessions.

27 May - 2 June 1991. The Pacific Circle will co-sponsor a number of sessions under the "Science and Culture" theme of the **XVIIth Pacific Science Congress** in Honolulu. See page x for information current at press time. A business meeting will also be held.

CANCELLATION

The conference on "Science of Pacific Island Peoples" at the **University of the South Pacific**, previously set for 5-9 December 1990, has been postponed until 1992. Rescheduling will be announced.

OTHER CONFERENCES AND CALLS FOR PAPERS

18-21 October 1990. Annual meeting of the **Society for Social Studies of Science**, Clinic Center Hotel, Cleveland, Ohio. Inquiries:
J. Scott Long or
Thomas F. Gieryn
Dept. of Sociology
744 Ballantine Hall
Indiana University
Bloomington, IN 47405

29-30 November 1990. The Third Annual Australasian Finance and Banking Conference will be held at the **University of New South Wales**. Inquiries:
The Organising Committee
Australasian Finance & Banking Conference
School of Banking and Finance
University of New South Wales
P.O. Box 1, Kensington
Sydney, N.S.W. 2033 Australia

12-14 December 1991. "Out of the Crucible: Science, Creativity and the Human Condition," a conference at the **Centre for Human Aspects of Science and Technology**, University of Sydney. Inquiries:

Alex Reichel
C.H.A.S.T., Room 723 Carslaw
University of Sydney
Sydney, NSW 2006

27-30 December 1990. "History of Carcinology" will be a theme at the annual meeting of the **American Society of Zoologists** in San Antonio, Texas. Inquiries:

Frank Truesdale
School of Forestry, Wildlife and Fisheries
Louisiana State University
Baton Rouge, LA. 70803-6202

18-20 April 1991. "Geography and Empire: Critical Approaches to the History of Geography," an international seminar at Queen's University, Kingston, Ontario, Canada. This conference will follow immediately the annual conference of the **Association of American Geographers**. The guiding theme: "How did the development of geography as a discipline, in a variety of emerging national contexts, contribute to the technics and ideology of empire in its many forms, and how in turn did the experiences of empire mold the development of geography as a discipline and body of knowledge?"

Deadline for abstracts: 14 December 1990.

Inquiries:

Neil Smith
Department of Geography
Rutgers University
New Brunswick, NJ 08901

17 May 1991. "Richard Spruce and the History of Natural History in Amazonia" is the theme of a one-day meeting of the **Society for the History of Natural History** at the Royal Botanic Gardens, Kew. Inquiries:

Gina Douglas, SHNH Meetings Secy.
The Linnean Society
Burlington House, Piccadilly
London W1V 0LQ, UK

20-22 June 1991. A conference on "Understanding the Natural World: Science Cross-Culturally Considered" will be sponsored by the **Ford Foundations Program in Comparative Scientific Traditions** at Hampshire College, Amherst, Massachusetts. The conference will examine science broadly as ways of observing, explaining, predicting and controlling events in the natural world. Comparative papers and papers focusing on non-Western science are solicited. Some supplementary funding may be available to support travel from the Third World. Send abstracts to:

Kathleen Dugan
School of Natural Science
Hampshire College
Amherst, MA 01002

Phone: (413) 549-4600 ext. 667

E-mail: KDUGAN@hampvms.bitnet

25-28 June 1991. "Science and Discovery" is the general theme of a conference in Madrid commemorating the quincentennial of the European discovery of the New World. Co-sponsors are the **History of Science Society** and the **Spanish and Latin American Societies for the history of science and technology**. Leading topics include: archival sources for New World Science; the cultural impact of discovery; discovery and the nature of humankind; the political economy of discovery; comparative perspectives on European science and New World societies; the Earth redrawn (time, space, and measurement); life and death in the tropics; and political independence and scientific and technological dependence. Inquiries:

Prof. Michael R. McVaugh
Department of History
University of North Carolina
Chapel Hill, NC 27514,

or

Prof. Seymour Mauskopf
Department of History
Duke University
Durham, NC 27706

1-5 July 1991. "The Impact of the Past Upon the Present" has been chosen as the theme of the Second National Conference of the **Australian Society for the History of Medicine**, at Perth, Western Australia. Papers are sought on: Western

Australian Medical History, Aboriginal Medicine, Women and Medicine, Childhood Medical History, Military and Maritime Medical History, Dental History, Medicine of the Indo-Pacific Region, and Social Medical History. Inquiries:

Conference Office
University of Western Australia
Nedlands, WA 6009

11-14 July 1991. Conference of the **International Society for the History, Philosophy and Social Studies of Biology**, at Northwestern University, Evanston, Illinois. Session abstracts are due 31 October 1990, paper abstracts by 31 January 1991, to:

Peter Taylor
ISHPSSB Program Co-ordinator
STS Program, 632 Clark Hall
Cornell University
Ithaca, NY 14853

Or by BITNET: BJTJ@CORNELLA
For registration & accommodation:

David Hull
Philosophy Dept.
Northwestern University
Evanston, IL 60208-1315

For information concerning society membership, dues and newsletter:

Peggy Stewart, IS/HPSSB
Science Studies Center
102 Price House
VPI & SU
Blacksburg, VA 24061-0247

September 1991. "Museums and Collections in the History of Mineralogy, Geology and Palaeontology" is the title of the 16th Symposium of the **International Commission on the History of the Geological Sciences**, to be held in Dresden, Germany. Inquiries:

Gesellschaft für Geologische
Wissenschaften der DDR,
Secretariat, INHIGEO
Invalidenstrasse 43
Berlin, Germany 1040



The XVII Pacific Science Congress will be held in Honolulu, Hawaii, USA May 27 through June 2, 1991. The title of the Congress is "Towards the Pacific Century: The Challenge of Change." The six themes of the Congress are: Global Environmental Change; Population, Health and Social Change; Science and Culture; Biological Diversity; Technologies for Development; Prospects for the 21st Century; and Dynamics of the Earth and the Heavens: The Pacific Arena. Listed below are the symposia currently planned for Science and Culture. Contributed papers are encouraged. For information, please write:

XVII Pacific Science Congress Secretariat
2424 Maile Way, Fourth Floor
Honolulu, HI 96822 USA
phone: 808-956-7526
fax: 808-956-3512
Email: psc@uhccux.uhcc.Hawaii.edu.bitnet

SCIENCE AND CULTURE

I. Scientific Change in the Pacific—the 19th and 20th Centuries

F. Rebbock, University of Hawaii, USA; Cosponsor - Pacific Circle

A. OUT OF THE SOUTH SEAS: PACIFIC INFLUENCES UPON WESTERN THOUGHT

1. The Geologist and the Pacific

R. Laudan, University of Hawaii, USA

2. The Botanist and the Pacific

C. Lamoureux, University of Hawaii, USA

3. The Zoologist and the Pacific

E. Kay, University of Hawaii, USA

4. The Anthropologist and the Pacific

N. Geschwind, Mid Pacific Institute, USA

5. Patrons and Patronage in the Pacific

F. Rebbock, University of Hawaii, USA

6. Instruments and Exploration

F. Rebbock, University of Hawaii, USA

B. SCIENCE, TECHNOLOGY AND THE PACIFIC WAR

1. Science Mobilized

R. Friedman, University of California, San Diego, USA

2. The Bomb and its Masters

R. MacLeod, University of Sydney, Australia

II. Cultural Construction of Knowledge

A. Cultural construction of medical knowledge: Ideologies East & West

F. Blake, University of Hawaii, USA

B. Acculturation and familiarity with fresh water

K. Ruddle, National Museum of Ethnology, Japan

III. Science Communication and Education

A. International science & technology exchange: value added, value lost*

A. Pedersen, Syracuse University, USA; P. Pedersen, Syracuse University, USA

B. Crisis Communication Management*

R. Barzock, Union Carbide, USA

(continued on next page)

C. Liaison with international organizations: How to do it*

S. Randolph, Pacific Basin Economic Council, USA

D. The media and science education

R. Williams, Australian Broadcasting System

E. Science education research and evaluation*

P. Gray, Syracuse University, USA

F. Science education in historical perspective

F. Rebbcock, University of Hawaii, USA

G. Networks for marine science education in Asia and the Pacific

S. Maynard, University of Hawaii, USA;

Cosponsors - PACON International, University of Hawaii Marine Options Program, USA

H. Science centres for youth

J. Watson, Te Aho a Maui, New Zealand

**Organized with the PSA Scientific Committee on Science Communication & Education*

IV. Technology and Cultural Change in the Pacific

S. Hill, University of Wollongong, Australia

Organized by the PSA Scientific Committee on Social Sciences and Humanities

A. Information technology and Pacific Island development

B. Traditional technological structures and cultures of the Pacific

C. Urban–rural technological development and the dilemma of Pacific Island culture

D. Technology and culture in the Pacific: Alignment and conflict

V. Science/Technology/Society: A New Context for Science

R. Yager, University of Iowa, USA

Organized with the PSA Scientific Committee on Science Communication & Education

VI. Perspectives on the Forest Economy of the Pacific Region

A. History of the Forest Economy of the Pacific Basin

R. Tucker, Oakland University & University of Michigan, USA; J. Dargavel, Australian National University;

Cosponsor—Tropical Forest History Project of the International Union of Forest Research Organizations

B. Non-timber forest products in the Pacific Basin, a panel

J. Fox, East-West Center, USA

VII. Oral Traditions of the Pacific Science Association: A Panel of Personal Reflections

N. Meller, University of Hawaii, USA

VIII. The Museum and Cultural Center as a Focus for Pacific Arts

Pacific Arts Association

A. Cultural integrity and environmental issues

B. Access and availability of natural resources

C. Evening panel discussion and performance

RECENT CONFERENCES

Co-sponsored by the Pacific Circle, "Science and the Pacific" was the Saturday morning session of the **West Coast History of Science Society's** annual meeting, 20-21 April 1990, at Morro Bay, California. The following papers were presented:

"Science Below Decks: Joseph Matkin and the *Challenger* Expedition" by P.F. REHBOCK;
"The Global Horizon: Transnational Scientific Collaboration in Australasia" by MICHAEL OSBORNE;
"Sportsman and Scientist: Adventures on the Periphery" by REBECCA ULLRICH;
"International Congress of Engineers: San Francisco 1915" by SUSAN BROWN; and
"Harvesting the Sea: California's Alginates Industry" by PETER NEUSIUL

"Science and Empires. Comparative History of Scientific Exchanges: European Expansion and Scientific Development of Asia, Africa, America and Oceania" was an international symposium in Paris. 2-6 April 1990, organized by PATRICK PETITJEAN of **Equipe REHSEIS**. The following list of papers relevant to Pacific science is selected from the more than 100 presented:

"The First Chemistry Course in Mexico" by PATRICIA ACEVES;
"American Interests, Foundation Planning, and International Rice Science Strategies (1950-1980): A Case of How Science Works in Young Empires" by ROBERT S. ANDERSON;
"Science et Nationalisme à la Nouvelle Grenade à la Veille de la Révolution d'Indépendance" by LUIS CARLOS ARBOLDEDA;
"The Scientists of the Desert" by SALVADOR BERNABEU ALBERT;
"Reception of European Medicine in Japan" by HARM BEUKERS;
"Le statut épistémologique de la médecine tropicale" by FRANÇOIS DELAPORTE;
"Géographie et colonisation en France durant la troisième République (1870-1940)" by DANIEL DORY;
"The Diffusion and the Reception of the Linnean System in Hispano-America" by EDUARDO ESTRELLA;
"Liang Qi-chao and Science in Modern China" by FAN DAINIAN;
"European Science and the Fight Against Smallpox in the New Kingdom of Granada (1782-1808)" by MARCELO FRIAS-NUNEZ;

"Organisation de la connaissance mathématique dans l'Amérique latine" by INES HARDING;
"The Reception of Western Medicine in China: Examples from Yunnan" by ELISABETH HSU;
"Life and Mathematical Work of Giacomo Rho in Ming China: Introduction to 'Shou suan'" by ISAIA IANNACCONE;
"Development of Mathematics in Japan during the period 1870-1920" by IYANAGA SHOKICHI;
"The Conditions of Introduction of European Mathematics in China: Comparison between 17th Century and 19th Century" by CATHERINE JAMI;
"The Need for New Science Among 18th Century Korean Scholars" by KIM ORYUN KIHYP;
"La Comisión científica del Pacífico (1862-1866) y la Comisión Científica del México (1864-1867): paralelismos y divergencias de dos proyecciones latinoamericanas de la ciencia europea" by LEONCIO LOPEZ-OCÓN;
"Science and Political Crisis: the Nautical School of Cartagena de Indias (1810)" by MAUNEL LUCENA GIRALDO;
"Comparative Research in Tropical Medicine during the Colonial Period in India and the Dutch East Indies" by HAN MESTERS;
"Chinese and Japanese Responses to 'European' Botany" by GEORGES METAILE;
"Technology and Colonial Control: The Missions of Elhuyar and Nordenflycht in Mexico and Peru" by GUILLERMO MIRA DELLI-ZOTI;
"Comercio y Ciencias Naturales en los Estados Unidos de Colombia" by DIANA OBREGÓN;
"The Export of Science: a task with a diversity of styles" by EDUARDO L. ORTIZ;
"The Société Zoologique d'Acclimatation and the New French Empire: Science and Political Economy" by MICHAEL A. OSBORNE;
"The Ecology of Empire: The Politics of Science in the British Empire" by PAOLO PALLADINO
"The Application of the European Mining Techniques in Nueva Granada" by FRANCISCO PELAYO;
"Science and Empire in the 'Malaspina Expedition' (1789-1794)" by JUAN PIMENTEL-IGEA;
"Une science-monde: la mondialisation de la science européenne et la création de traditions scientifiques locales" by XAVIER POLANCO;
"The Illustrated Model in the Spanish Botany and its Introduction in the American Colonies" by MIGUEL ANGEL PUIG-SAMPER and JOSE LUIS MALDONADO;

"Análisis comparativo de las relaciones entre la ciencia moderna y la medicina colonial latinoamericana" by EMILIO QUEVEDO;
"La difusión de la ciencia europea en la sociedad novohispana. El caso de la medicina" by MARTHA EUGENIA RODRIGUEZ;
"Influence of Claude Bernard in Mexican Medicine in the late 19th and early 20th Centuries" by ANA CECILIA DE ROMO;
"L'impact de la métropole sur la réforme de mathématiques scolaires au Costa-Rica dans les années soixante" by ANGEL RUIZ-ZUNIGA;
"Science and Power in the XIXth Century: comparisons between Mexico and France" by JUAN JOSE SALDAÑA;
"La difusión de las técnicas de producción de metales preciosos y de acunación en la América Hispana durante la época colonial. Siglos XVI al XVII" by JULIO SANCHES GOMEZ;
"Scientific Studies in Imperial Japan (1868-1945)" by SASAKI CHIKARA;
"The Application of Centre-Periphery Theories to Scientific Development. A Case Study of the Japanese Experience in the Meiji Era" by SATOFUKA FUMIHIKO;
"Science without an Empire: Linnean Disciples in Five Continents" by SVERKER SORLIN;
"Science of the Periphery of an Empire: Patagonia and the North-West Coast at the End of the XVIIIth Century" by JOSE DE LA SOTA RIUS;
"The Diffusion of Agricultural Technology by Rockefeller Philanthropy, Especially by the Rockefeller Foundation in Mexico and Central America" by DARWIN H. STAPLETON;
"How does the Japanese case fit in the model of Pyenson's theory? From the viewpoint of Dutch-Japanese relations in the first half of the 19th Century" by TSUKAHARA TOGO;
"Le voyageurs français au Pérou (XVIIème et XIXème siècles), entre les intérêts commerciaux et les observations scientifiques" by MANUEL VEGAS-VELEZ;
"Spread and Reception of Modern Science in China" by WANG BING; and
"The Colonial Office and British Colonial Science Policy, 1880-1914" by MICHAEL WORBOYS.

"New Trends in Science, Technology and Society in the Pacific Basin" was the theme of a conference held 4-6 April in Shanghai. Host was

the **Shanghai Academy of Science and Technology**. Sponsors were the Shanghai Institute for Social Sciences; the International Technology Institute, Shanghai Branch; and the Research Center of Economic, Technical and Social Development, State Council of the PRC.

The **Society for the History of Natural History** held its 7th International Conference at the Natural History Museum, London, 25-27 April. Among the 16 papers addressing the program theme "Landmarks in Natural History" were the following of special relevance to the Pacific:
"Georg Steller, first naturalist in the Northwest coast of America, 1741: where he was, how he worked and what he accomplished" by O.W. FROST;
"Plant geography in the *Origin of Species*" by D. PORTER; and
"Fitzroy's Foxes and Darwin's Finches" by W.R.P. BOURNE.

A seminar on "19th Century Colonial Naturalists and Engineers: Innovative Spirits" was conducted on 5 May in Sydney. Organized jointly by the **Colonial Science Club**, the **Royal Society of New South Wales** and the **Royal Australian Historical Society**, the program featured the following papers:
"George Caley's (1770-1829) Contribution to Australian Natural History" by JOAN WEBB;
"Ferdinand Lucas Bauer (1760-1826)" by MARLENE NORST;
"Sir Thomas Mitchell (1792-1867): Explorer, naturalist and artist" by DON BAKER;
"John Macgillivray (1821-1867): a person of lower station" by IAN LOCH;
"George Barney (1792-1862), the Colony's First Engineer" by COL. RALPH SUTTON;
"Governor Denison (1802-1871)" by ALAN DAY;
"Peter Nicol Russell (1816-1930), Pioneer of Australian Engineering Industry" by RAGBIR BHATHIAL; and
"Percy Allan (1861-1930)" by DON FRASER;
Discussion/summation by ANN MOYAL.

A seminar on "La Comunidad Científica frente a la Cuenca del Pacífico" was held at the **University**

of Lima, 19-21 June 1990. Coordinator was PROFESSOR JOSE GARCIA VERA.

The Australasian Association for the History, Philosophy and Social Studies of Science held its annual conference 25-27 September in Lorne, Victoria. A session on Australian science included the following contributions:

"How Victoria's Alps Began to Lose Their Grasslands" by LINDEN GILBANK;
"The Rise of an Ecological Consciousness in Victoria" by LIBBY ROBIN;
"Schools of Art in Queensland and Their Place in Science Education" by JOHN LAURENT; and
"Devices and Desires: Early Public and Professional Expectations of Intelligence Tests in Australia" by ALISON TURTLE.

NEW MUSEUMS

Newsletter 38 of the Society for the History of Natural History (SHNH) brings announcements of the establishment of two unique new museums in Germany. Schloss-Strasse 69a in Berlin is the provisional site of the new museum for the history of natural history. Sponsors of this initiative are the Forderkreis der naturwissenschaftlichen Museen Berlins e.V., the Gesellschaft zur Grundung und Forderung eines Museums für die Geschichte der Biologie e.V., and the municipality of Berlin. The SHNH will hold its Second Central European Meeting there on 5 December 1990.

And **Burmeisterhaus**, the Baltic coast birthplace of Hermann Burmeister, naturalist and director of the Buenos Aires natural history museum, will be renovated to house both the Burmeister biographical museum and the offices of the Meeresmuseum Stralsund, Germany's foremost museum of oceanography and fisheries.

18th CENTURY BRITISH BIOGRAPHY

Earlier this year the **University of Newcastle upon Tyne** initiated the Eighteenth Century British Biography project. Aimed at bringing together the personal records of English-speaking

people of that period, the project will include individuals who lived in areas that were then colonies as well as the United Kingdom. It is intended that the the ultimate compilation will offer the most complete and authoritative listing of the British people of the 18th Century. The initial database is expected to contain 1 million records, derived from local and national directories and book subscription lists. The project may result in a standardized format for biographical data, such as has been achieved in bibliography with MARC. Inquiries:

Project Office, Park House
Ashow, Nr Kenilworth
Warwickshire, CV8 2LE UK
(From: *Newsletter 33*, British Society for the History of Science)

PAPERS OF JOHN LAYARD

The **Melanesian Archive** of the **University of California, San Diego**, has acquired the unpublished notes, manuscripts and letters of John Layard (1892-1974), British social anthropologist whose research in the New Hebrides (now Vanuatu) was an important event in the early ethnographic exploration of Melanesia. The collection includes Layard's 800-page unpublished typescript on the social organization of the island of Atchin, plus extensive materials from his later life as a Jungian analytic pschoologist. Estimated at 700 kg of written material, the collection is a gift of the author's son, Richard Layard, Professor of Labour Economics, London School of Economics.

The Melanesian Archive is now readying the collection for use by regional specialists. In keeping with the Archive's policy of repatriating cultural materials to the host region, microfiche sets of the collection will be provided without charge to a dozen academic institutions in Vanuatu and other Melanesian nations. Due to the collection's size, processing is not expected to be complete until mid-1990. Inquiries:

Professor Donald Tuzin
Department of Anthropology, C-001
Univ. of California, San Diego
La Jolla, CA 92093



ASTRONOMICAL CENTENNIAL

The **Astronomical Society of the Pacific** celebrated its 100th anniversary last year with a special issue of its bimonthly journal *Mercury*. Vol. XVIII, no. 5 (September/October 1989) featured "The Stars for All: A Centennial History of the Astronomical Society of the Pacific" by KATHERINE BRACHER.

RECENT APPOINTMENTS

JUN FUDANO, who completed the doctorate at the University of Oklahoma this year, has been appointed to the faculty in the History of Science and Technology Program at the Kanazawa Institute of Technology, Kanazawa, Japan.

DR. MARCOS CUETO, specialist in the history of Latin American science, has been selected as Resident Scholar at the Rockefeller Archive Center in North Tarrytown, New York, during the 1990-91 academic year. He will spend the year conducting research for a project entitled "The Tragedy of Success: The Rockefeller Foundation and Medical Education and Research in Latin America."

SCIENCE-TECHNOLOGY CENTERS

Public perceptions of science are shaped in considerable measure by the public institutions where science is put on display. JOHN E. WATSON,

Deputy Chairman of 'Te Aho a Maui' **Capital Discovery Place** in Wellington has compiled a directory of science-technology centers in the Pacific region which he has generously shared. Complete addresses and details about the following institutions may be obtained by writing him at P.O. Box 11-513, Wellington, NZ.

Alaska

The Imaginarium, Anchorage
University of Alaska Museum, Fairbanks

Alberta

Edmonton Space Science Centre, Edmonton

Australia

National Science and Technology Centre,
Canberra
Powerhouse Museum, Sydney
Scitech Discovery Centre, Perth
Sydney Children's Museum, Sydney
Spotswood Science Centre, Melbourne

California

California Museum of Science and Technology,
Los Angeles,
Carter House National Science Center,
Redding
Discovery Museum of Orange County, Santa Ana
Discovery Pavilion, Woodland Hills
Exploratorium, San Francisco
Reuben Fleet Space Theatre and Science Center, San Diego
Lawrence Hall of Science, Berkeley
Natural History Museum of Los Angeles County, Los Angeles
The Oakland Museum, Oakland
Palo Alto Junior Museum, Palo Alto
Pasadena Hall of Science, Pasadena
Sacramento Science Center and Junior Museum, Sacramento
Technology Center of Silicon Valley, San Jose

Hong Kong

Museum of Science and Technology

Indonesia

Science and Technology Centre of Indonesia,
Jakarta

Japan

Akashi Science Hall of Astronomy, Akashi City
Kobe Science Museum for Youth, Kobe
Kyoto Municipal Science Centre for Youth
National Science Museum, Discovery Building,
Tokyo
Japan Science Foundation, Science Museum,
Tokyo
NTT's Telecommunications Science Hall
Suma Aqualife Park, Kobe
Yokohama Science Centre, Yokohama

Korea

The Korean Children's Centre, Seoul
National Science Museum, Seoul

Mexico

Museo Tecnológico de C.F.I, Mexico City

Micronesia

Science Centre Network, College of
Micronesia, Ponape

New Zealand

Museum of Transport and Technology,
Auckland
The Palmerston North Science Centre,
Palmerston North
Capital Discovery Place: Te Aho-a-Maui,
Wellington
Science Technology Extravaganza,
Christchurch
Otago Exploratorium and World of Microspace,
Dunedin

Oregon

Oregon Museum of Science and Industry,
Portland
Willamette Science and Technology Centre,
Eugene

Singapore

Singapore Science Centre, Singapore

Taiwan

National Taiwan Science Education Centre

Washington

Hanford Science Center, Richland
Eastern Washington Science Center, Cheney
Pacific Science Center, Seattle

BOOK REVIEW

MARSDEN HORDERN. *Mariners Are Warned! John Lort Stokes and H.M.S. Beagle in Australia 1837-1843*. Melbourne: Melbourne University Press, 1989. A\$44.95.

On 5 July 1837 H.M.S. *Beagle* under the command of Captain John Clements Wickham left Plymouth Sound bound for a survey of the Australian coastline which would fill in the details left incomplete by the previous magnificent work of Matthew Flinders and Phillip Parker King. On board as Lieutenant and Assistant Surveyor was John Lort Stokes, aged almost twenty-six.

Stokes was destined to take command of the expedition in March 1841 when Wickham retired through ill-health. Stokes' story of the voyage was told in his two-volume *Discoveries in Australia*, published in London in 1846, and made more widely known in recent times when reissued as No. 33 of the Australiana Facsimile Editions in 1969 by the Libraries Board of South Australia, a far-sighted project which is sadly no more.

The author of *Mariners Are Warned*, Marsden Hordern, himself a sailor and a long-serving officer of the Royal Australian Navy, has suffered the hardships of small vessels in dangerous waters, and has benefitted more than once from the information on the charts drawn by Stokes and his associates. Therefore he brings to his story of the voyage, in addition to his technical knowledge of the subject, a very real understanding for the difficulties of these earlier adventurers, and a feeling for their joys following successful forays.

Hordern has skillfully woven together the story of the expedition, drawing on manuscripts sources in England and Australia, including the very lively journal of Benjamin Helpman, the twenty-three-year-old Mate. Unfortunately when Helpman left the expedition in Perth in 1840, he also left a gap not filled by the records of the more serious Stokes. A wide range of contemporary and more recent publications is set out in the six-page bibliography.

The author has dealt sensitively, but not uncritically, with the many interesting personalities involved in this important expedition, whether at sea or in the various ports of call. Funding by the Miegunyah Press has ensured a

high quality publication with some fine reproductions of color plates and sketches. There are numerous maps, but as a mere landlubber I would like to have seen scales put on them, rather than rely on remembering just how many kilometers are in a degree.

This is a book that will be enjoyed by all who have an interest in maritime history, particularly those concerned with the study of Australasian waters.

David Branagan
University of Sydney

NEW SERIALS

French Science and Technology is published by the French embassy in Canberra. Inquiries:

Georgina Meyers
Service Scientifique
Embassade de France
6 Perth Avenue
Yarralumla ACT 2600

N.E.W.S. - Letter was begun in 1989 for the **Network on East-West-South Research Cooperation on Technology Transfer**. It is edited by the **Research Policy Institute, University of Lund**, and appears quarterly. Inquiries:

Research Policy Institute
University of Lund
Box 2017
S-220 02 Lund, Sweden.

Pacifica, a Journal of Pacific and Asian Studies, is published by the **Pacific Rim Studies Center, Alaska Pacific University** in Anchorage. The journal is interdisciplinary, seeks to be as international as possible, and welcomes "traditional as well as any innovative articles regarding the Pacific Basin, broadly interpreted." Inquiries:

Robert D. Craig, Editor
Pacifica
Alaska Pacific University
4101 University Drive
Anchorage, AK 99508

Rust News, begun in January 1990, is the quarterly newsletter from the **Program in**

Technology Policy and Social Development, Roskilde University Studies in Technology and Innovation, Roskilde, Denmark. The second number (April 1990) featured the following articles: "Science and Technology Studies in Japan," by YUKIO WAKAMATSU and LARS FUGLSANG (pp. 1-2); and "'Soozoo' or the Search for Creativity in Japan," by FUMIHIKO SATOFUKA (pp. 3-4).

RECENT BOOKS

Anais do 20. Congresso Latino-Americano de Historia da Ciéncia e da Tecnologia, UBIRATAN D'AMBROSIO, organizer (Sao Paulo: Nova Stella, 1989).

Atoms for Peace and War, 1953-1961, by RICHARD G. HEWLETT and JACK M. HOLL (Berkeley/Los Angeles: University of California Press, 1989).

Aztec Medicine, Health and Nutrition, by BERNARD ORTIZ DE MONTELLANO (New Brunswick, NJ: Rutgers University Press, 1990). \$US14.

The Bamboo Fire: Field Work with the New Guinea Wape, 2nd ed., by WILLIAM MITCHELL (Prospect Heights, IL.: Waveland Press, 1987).

Baudin in Australian Waters: The Artwork of the French Voyage of Discovery to the Southern Lands, 1800-1804, by JACQUELINE BONNEMAINS, ELLIOT FORSYTH and BERNARD SMITH (Oxford/New York: Oxford University Press, 1988). \$US195.

The Bounty: An Ethnographic History, by GREG DENING (Parkville, Vict.: University of Melbourne, 1990). \$A10 (paper).

Bounteous Bestowal: The Economic History of Norfolk Island, by M.L. TREADGOLD (Canberra: National Centre for Development Studies, 1990). \$A20.

Camilla C.H. Wedgwood 1901-1955, by CHARLOTTE CARR-GREGG and DAVID WETHERELL (Sydney: University of New South Wales Press, 1990). \$A24.95.

Chronological List of Antarctic Expeditions and Related Historical Events, by ROBERT K. HEADLAND (Cambridge/New York: Cambridge University Press, 1989) \$US80.

A Course Through Life: Memoirs of an Australian Economist, by H.W. ARNDT (Canberra: National Centre for Development Studies, 1990), \$A10.

The Deadly Legacy: Australian History and Transmissible Disease, by JOHN GOLDSMID (Kensington: New South Wales University Press in association with the Australian Institute of Biology, 1988).

El desarrollo de las ciencias naturales y la medicina en Panama: Panorama historico y antologia by NOVENCIDO ESCOBAR (Panama: Universidad de Panama, 1987).

Directory of Source Materials for the History of Oceanography, Technical Papers in Marine Science #58 (Paris: UNESCO, 1990).

E.V. Keogh, Soldier, Scientist and Administrator, by LYNDSEY GARDINER (South Yarra, Vict.: Hyland House, 1990). \$A29.95.

The Gardens of the Sun: A Naturalist's Journal of Borneo and the Sulu Archipleago, by F.W. BURBIDGE, repr. of 1880 ed. (Oxford/New York: Oxford University Press, 1989). \$US29.95.

Geographers on Fiji: A Bibliography, by R. CHANDRA (Suva: School of Social and Economic Development, University of the South Pacific, 1989).

Guide to Current Bibliographies in the Third World, 2nd ed., by G.E. GORMAN and J.J. MILLS (North Ryde, NSW: D.W. Thorpe, 1987), \$A115.

History of Microbiology in Australia, edited by FRANK FENNER (Parkville, Victoria: Australian Society for Microbiology, Inc., 1990). \$US50.

History of Systematic Botany in Australasia. Proceedings of a Symposium held at the University of Melbourne, 25-27 May 1988, edited by P.S. SHORT (Australian Systematic Botany Society, Inc., 1990).

International Research in the Antarctic, by RICHARD FIFIELD (New York: Oxford University Press, 1988). \$US45.

Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance, by MICHAEL ADAS (Ithaca, N.Y.: Cornell University Press, 1989)

Mad Dogs and Englishmen Went Out in the Queensland Sun, by GORDON DOUGLAS (Brisbane: Amphion Press, 1990).

Malinowski Among the Magi: "The Native of Mailu", edited by MICHAEL W. YOUNG (London: Rutledge, 1988).

Memorias de Primer Congreso Mexicano de Historia de la Ciencia y de la Tecnologia, vol. 1 (Mexico City: Sociedad Mexicana de Historia de la Ciencia y de la Tecnologia, A.C., 1989).

Pacific Marine Museums and Data/Research Centers 1990, compiled by LYNDALL B. LANDAUER and DONALD A. LANDAUER (Honolulu: Institute for Marine Information, 1990). \$US19.95.

The Pacific Theater: Island Representations of World War II, by GEOFFREY M. WHITE and LAMONT LINDSTROM (Honolulu: University of Hawaii Press, 1989).

Prodigious Birds. Moas and Moa-hunting in Prehistoric New Zealand, by A. ANDERSON (Cambridge: Cambridge University Press, 1991).

Proud Intrepid Heart: Leichhardt's First Attempt to the Swan River 1846-1847, by DAN SPROD (Potts Point, NSW: Blubber Head Press, Hordern House, 1990). \$A175.

Science and Technology in Australasia, Antarctica and the Pacific Islands, by JARLATH RONAYNE and CAMPBELL BOAG (Harlow, Essex, UK: Longman, 1989).

In Search of Nautilus: Three Centuries of Scientific Adventures in the Deep Pacific to Capture a Preshitoric, Living Fossil, by PETER DOUGLAS WARD (New York: Simon & Schuster, 1988).

Shaping Science and Industry: A History of Australia's Council for Scientific and Industrial Research, 1926-49, by C.B. SCHEDVIN (Sydney: Allen & Unwin, 1987).

Soviet Science on the Edge of Reform, by HARLEY D. BALZER (Boulder, Colo./San Francisco/London: Westview Press, 1989). \$US32.50.

Standing By and Making Do: Women of Wartime Los Alamos, by JANE S. WILSON and CHARLOTTE SERBER, eds. (Los Alamos: Los Alamos Historical Society, 1988). \$US8.95 (paper).

Technological Change, Development and the Environment: Socio-Economic Perspectives, edited by CLEM TISDELL and PRIYATOSH MAITRA (London: Routledge, 1988).

Thinking Technology - Manual for Technology and Development in the South Pacific, by Tony Marjoram (Parkville, Vict.: University of Melbourne, 1990).

Under Capricorn: A History of Souther Hemisphere Astronomy, by DAVID S. EVANS (Bristol: Hilger, 1988).

Unit 731: Japan's Secret Biological Warfare in World War II, by PETER WILLIAMS and DAVID WALLACE (New York: Free Press, Macmillan, 1989). \$US22.95.

Voyages of Discovery: Captain Cook and the Exploration of the Pacific, by LYNNE WITHIEY (Berkeley/Los Angeles: University of California Press, 1987). \$US12.95 (paper)

World Archaeoastronomy. Selected Papers From the 2nd Oxford International Conference on Archaeoastronomy, held at Merida, Yucatan, Mexico, 13-17 January 1986, edited by A.F. AVENI (Cambridge: Cambridge University Press, 1989).

DISSERTATIONS COMPLETED

"George W. Goethals and the Panama Canal," by WALT GRIFFIN, University of Cincinnati, 1988.

"The Development of Geologic Knowledge and Education and its Applications in California Before

1934," by DOROTHY L. STELLER-STOUT, Claremont Graduate School, 1988.

"The Development of the Social Sciences in China Before 1949," by CHUNG-HSING SUN, Columbia University, 1987.

"To Make a Spotless Orange: Biological Control in California" by RICHARD SAWYER, University of California, Santa Barbara, 1990.

RECENT ARTICLES

"Accounting for Science: The Impact of Social and Political Factors on Japanese Elementary Particle Physics," by MORRIS FRASER LOW. *Historia Scientiarum* 36 (1989), 43-65.

"Adoption of Western Medicine in Japan," by YONEZO NAKAGAWA, in "Clinical Teaching, Past and Present," edited by H. BEUKERS and J. MOLL, *Clio Medica* 21 (1987/88).

"Alfred Edmund Finckh (1866-1961), Leader of the 1898 Coral Reef Boring Expedition to Funafuti," by K.A. RODGERS and C. CANTRELL. *Historical Records of Australian Science* 7 (1989), 393-404.

"Alonso de Ovalle [1603-1651] und die Anfänge der Kartographie Chiles," by OSWALDE DREYER-EIMBCKE. *Speculum Orbis* 2(2) (1986), 75-88.

"Ancient and Medieval Chinese Protochemistry," by CHRISTOPHER GILDEWELL. *Journal of Chemical Education* 66 (1989), 631-633.

"The 'Arsenal' in the Strand: Australian Chemists and the British Munitions Effort, 1916-1919," by ROY MACLEOD. *Annals of Science* 46 (1989). 45-67.

"The Butterfly and the Frigate: Social Studies of Science in Japan," by MORRIS FRASER LOW. *Social Studies of Science* 19 (1989), 313-342.

"Cantonese Artifacts, Chinoiserie and Early American Idealization of China," by JONATHAN GOLDSTEIN. *Oriental Art* (London), new series 14 (1) (Spring 1990), 7-16.

"Carl Linnaeus's Acquaintance with Tropical Plants," by WILLIAM T. STEARN. *Taxon* 37 (1988), 776-781.

"Charles Hedley and the 1896 Royal Society Expedition to Funafuti," by K.A. RODGERS and CAROL CANTRELL. *Archives of Natural History* 15 (1988), 269-280.

"Cholera and the Origins of the American Sanitary Order in the Philippines," by REYNOLDO C. ILETO in *Imperial Medicine and Indigenous Societies*, edited by DAVID ARNOLD (Manchester: Manchester University Press/New York: St. Martin's Press, 1988).

"La Contribución de los Científicos Alemanes al Conocimiento del Mar Peruano," by MANUEL VEGAS VELEZ. *Boletín de Lima* 66 (1990), 79-84.

"The CSIRO Division of Chemical Physics, 1944-1986," by J.B. WILLIS. *Historical Records of Australian Science* 7 (1988), 153-177.

"The Development of Elementary Particle Theory in Japan--Methodological Aspects of the Formation of the Sakata and Hagoya Models," by ZIRO MAKI. *Historia Scientiarum* 36 (1989), 83-95.

"The Diffusion of the Idea of Social Darwinism in East and Southeast Asia," by AKIRA NAGAZUMI. *Historia Scientiarum* 24 (1983), ??

"The Earliest Known Australian Bird Painting: A Rainbow Lorikeet, *Trichoglossus Haematodus Moluccanus* (Gmelin) by Moses Griffin, Painted in 1772," by R.J. WILLIS. *Archives of Natural History* 15 (1988), 323-324.

"The Embracing Vision of Joseph Needham," by JOEL KOVEL. *Science as Culture* 5 (1989), 50-70.

"The Exploration and Mapping of the Arctic Coast of North America," by EDWARD J. GOODMAN. *Terra Incognita* 18 (1986), 55-72.

"From Myth to Reality: The Care of the Moa," by JACOB W. GRUBER. *Archives of Natural History* 14 (1987), 339-352.

"From Research to Recreation: The Rise and Fall of Sydney Observatory," by WAYNE ORCHISTON. *Vistas in Astronomy* 32 (1988), 49-63.

"'Full of Honour and Gain to Science': Munitions Production, Technical Intelligence, and the Wartime Career of Sir Douglas Mawson, FRS," by ROY MACLEOD. *Historical Records of Australian Science* 7 (1988), 189-201

"The Geological Survey of Victoria Under Alfred Selwyn, 1852-1868," by THOMAS A. DARRAGH. *Historical Records of Australian Science* 7 (1987), 1-25.

"Gold from the Sea: Archibald Liversidge, F.R.S., and the 'Chemical Prospectors,' 1870-1970," by ROY M. MACLEOD. *Ambix* 35 (1988), 53-64.

"Goodyear and the Gum Tree: The Rubber Story," by JOAN MOYNIHAN. *Today's Chemist* 2(5) (October 1989), 14-18, 34.

"History and Philosophy of Science at the University of Sydney: A Case Study in Non-innovation," by ALISON M. TURTLE. *Historical Records of Australian Science* 7 (1987), 27-37.

"Into Space from Down Under: The Early Days," by MATTHEW L. JAMES. *Journal of the British Interplanetary Society* 41 (1988), 539-554.

"The Introduction and Development of Continental Drift Theory and Plate Tectonics in China: A Case Study in the Transference of Scientific Ideas from West to East," by JING YI YANG and DAVID OLDROYD. *Annals of Science* 46 (1989), 21-43.

"Japan's Pursuit of Knowledge: Reversing the Flow of Information," by JON SIGURDSON, in *From Research Policy to Social Intelligence: Essays for Stevan Dedijer*, edited by JAN ANNERSTEDT and ANDREW JAMISON (London: Macmillan, 1988).

"The Life and Work of Luis Née, Botanist of the Malaspina Expedition," by DOMINGO A. MADULID. *Archives of Natural History* 16 (1989), 33-48.

"The Limits of Enlightenment Anthropology: Georg Forster and the Tahitians," by HUGH WEST. *History of European Ideas* 10 (1989), 147-160.

"Margaret Mead and Samoa: Coming of Age in Fact and Fiction," by RICHARD FEINBERG. *American Anthropologist* 90 (1988), 656-663.

"Mathematics in the Pacific Basin," by GARRY J. TEE. *British Journal of the History of Science* 21 (1988), 401-417.

"Medicine and Racial Politics: Changing Images of the New Zealand Maori in the 19th Century," by MALCOLM NICOLSON, in *Imperial Medicine and Indigenous Societies*, edited by DAVID ARNOLD (Manchester: Manchester University Press/New York: St. Martin's Press, 1988).

"Oceanography on Postage Stamps: Christmas Island Honours Sir John Murray," by TONY RICE. *History of Oceanography*, no. 2 (July 1990), 4-6.

"Old China Trade Documents in Several East Coast (American) Libraries: Their Usefulness to Historians of China, the United States, and Sino-American Relations," by JONATHAN GOLDSTEIN. *Society for Historians of American Foreign Relations Newsletter* 20 (4) (December 1989), 5-17.

"Opportunities and Handicaps of Antipodean Scientists: A.J. Nicholson and V.A Bailey on the Balance of Animal Populations," by JOHN L. HOPPER. *Historical Records of Australian Science* 7 (1988), 179-188.

"An Overview of California Agricultural Mechanization, 1870-1930," by ALAN L. OLMSTEAD and PAUL RHODE. *Agricultural History* 63(3) (1988), 86-112.

"Prometheus Bound: Technology and Industrialization in Japan, China, and India prior to 1914: A Political Economy Approach," by IAN INKSTER. *Annals of Science* 45 (1988), 399-426.

"Public Health and Sexual Morality: Venereal Disease in World War II Australia," by MICHAEL STURMA. *Signs* 13 (1988), 725-740.

"In Pursuit of Professionalism: The Oregon State Academy of Sciences, 1905-1914," by RICHARD T. READ. *Oregon Historical Quarterly* 90 (1989), 167-198.

"Railways and Scientific Management in Japan, 1907-30," by EISUKE DAITO. *Business History* 31 (1989), 1-28.

"Resumption of International Relationship of Japanese Particle Physicists after World War II," by MICHIO KONUMA, CHIEKO MASUZAWA and YOSHIO TAKADA. *Historia Scientiarum* 36 (1989), 23-41.

"Retrieving Biology's Past: the Mueller Correspondence Project," by A.M. LUCAS. *Biologist* 36 (1989), 126-128.

"Scotland and Australasia," by D.A. DOW, in *The Influence of Scottish Medicine: An Historical Assessment of its International Impact*, edited by DEREK A. DOW (Carnforth, England: Parthenon, 1988)

"Some Aspects of Japanese Science, 1868-1945," by EIKOH SHIMAO. *Annals of Science* 46 (1989), 69-91.

"Some Aspects to Science Studies in Japan," by FUMIHIKO SATOFUKA. *Historia Scientiarum* 38 (1989).

"Teaching of Medicine in the Dutch East Indies," by D. DE MOULIN, in "Clinical Teaching, Past and Present," edited by H. BEUKERS and J. MOLL, *Clio Medica* 21 (1987/88).

"Two Hundred Years of Astronomy in Australia," by J. GORDON ROBERTSON. *Journal of the British Interplanetary Society* 41 (1988), 567-580.

"Western Influence and Chinese Tradition in an 18th Century Chinese Mathematical Work," by CATHERINE JAMI. *Historia Mathematica* 15 (1988), 311-331

"William Dawes and Australia's First Observatory," by PHILIP S. LAURIE. Edited by ADAM PERKINS and DEREK HOWSE. *Quarterly Journal of the Royal Astronomical Society* 29 (1988), 469-482.

"Yukawa in the 1930s: A Gentle Revolutionary," by LAURIE M. BROWN. *Historia Scientiarum* 36 (1989), 1-21.

BOOK CATALOGUES RECEIVED

"The Americas, the Pacific and Australia, The Far East," Cat. 1119 (1990) from Bernard Quaritch Ltd., 5-8 Lower John St. Golden Sq., London W1R 4AU

"Australia, the Pacific and South East Asia," Catalogues 210, 212-216; "History, Art, Biography, Politics, Anthropology. Linguistics, Music, etc.," List 195; and "Books from an Anthropologist's Library," List 197; from Serendipity Books Antiquarian Booksellers, P.O. Box 340, Nedlands, W.A. 6009 Australia

"Rare Australian Books, Part II: 1830-1850," and "Science & Technology - Occasional List, July 1990," from Hordern House, P.O. Box 225, Potts Point, NSW 2011

The *Pacific Circle Newsletter* is the communication medium of the Pacific Circle, organized in 1985 to promote and assist scholarship in the history and social studies of Pacific science. The Pacific Circle is a Commission of the International Union of the History and Philosophy of Science.

The *Newsletter* is currently distributed twice a year with the assistance of the Departments of History and General Science, University of Hawaii. Membership in the Pacific Circle, which includes the *Newsletter*, is available at a cost of US\$10 per year or \$25 for three years. Additional contributions in any amount to support the costs of production will be gratefully accepted. Cheques or money orders should be made payable to "Pacific Circle Newsletter" and sent to the editor:

P. F. Rehbock
Pacific Circle Newsletter
History Dept.
University of Hawaii
2530 Dole St.
Honolulu, HI 96822, U.S.A.

Tel: (808) 956-6850
Fax: (808) 956-9600
E-Mail: U038990.@uhccmvs.bitnet

The Editor welcomes news items at any time. Deadline for inclusion in the next issue: 1 February 1991.

NEWSLETTER STAFF

Editor: Philip F. Rehbock
Co-editor: Roy M. MacLeod
Editorial assistance from Karen M. Rehbock is gratefully acknowledged.

CORRESPONDENTS

AUSTRALIA:	Roy MacLeod
CHILE:	Augusto Salinas
CHINA:	Li Pei-shan
ECUADOR:	Eduardo Estrella
GERMANY:	Walter Lenz
HOLLAND:	William Backhuys
JAPAN:	Masao Watanabe
S.KOREA:	Park Seong-Rae
MEXICO:	Juan José Saldaña
NEW ZEALAND:	A. D. Thomson
PERU:	Marcos Cueto
SPAIN:	Fernando Monge
U.S.S.R.:	V. I. Ilyichev