

THE PACIFIC CIRCLE



JUNE 2001

BULLETIN NO. 7

ISSN 1520-3581

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PACIFIC CIRCLE NEWS

FORTHCOMING MEETINGS —MEXICO CITY

The Pacific Circle and the Commission on Oceanography have organized a joint symposium for the upcoming XXIst International Congress for the History of Science, to be held July 8-14, 2001 in Mexico City. "From the Pacific to the Atlantic: Oceans, Peoples & the Pursuit of Natural Knowledge" offers papers of interest to scholars of science in the Pacific and is scheduled for Monday, July 9. The program (revision as of 30 April) is as follows:

Chairs: Walter Lenz (University of Hamburg, walter.lenz@dkrz.de)
Michael Osborne (University of California at Santa Barbara, osborne@humanitas.ucsb.edu)

SESSION 1 (09:00–10:30). *Politics and Oceanography in the Pacific*
"The Loyalty Case of Harald U. Sverdrup"

Naomi Oreskes

University of California, San Diego

In the summer of 1941, Harald Sverdrup, the Norwegian-born Director of the Scripps Institution of Oceanography (SIO) in La Jolla, California, was denied security clearance to work on U.S. Navy-sponsored research in underwater acoustics applied to anti-submarine warfare. The official story of Sverdrup's clearance denial was the risk of blackmail over relatives in occupied Norway. Declassified documents tell a different story. Although Sverdrup's integrity was defended on the highest levels of U.S. science, doubt was cast upon him by members of his own institution, who accused him of being a Nazi sympathizer. Personal distrust, rooted in scientific and intellectual disagreement, spilled over into questions about Sverdrup's loyalty and judgment. These doubts were grounds for withholding clearance, until Roger Revelle, a former student of Sverdrup now working within the Navy, was able to obtain a limited clearance for Sverdrup to develop techniques for forecasting surf conditions during amphibious assaults. After the war, this work was credited with saving many lives, but at the time it placed Sverdrup out of the mainstream of Navy-sponsored oceanographic research. In being denied access to major areas of scientific work,

Sverdrup's position as a leader of American oceanography was undermined, as his vision of international oceanography in pursuit of natural knowledge gave way to the interpretation of oceanography as a matter of national security.

"Oceanography & the Atomic Bomb: Roger Revelle,
Radioactivity, and Oceanography at the Scripps Institution"

Ronald Rainger

Texas Tech University

In the years immediately following World War II, the atomic bomb served as a powerful stimulus to American oceanography. Operation Crossroads, the atomic bomb tests at Bikini Atoll in 1946, followed by the Bikini Scientific Resurvey the following year, served as important organizing activities for American oceanographers and promoted research on the effects of atomic radiation on organisms and in ocean waters. While the American military continued to sponsor scientific studies associated with bomb tests throughout the early 1950s, increasing scientific and political concerns over atomic radiation also promoted much research, primarily through the National Academy of Sciences. This paper explores the relationship between atomic energy and the study of the oceans through an examination of the work of the American oceanographer, Roger Revelle. Following the Crossroads test and the Bikini Resurvey, Revelle's interest in radioactivity shaped scientific and institutional developments at the Scripps Institution of Oceanography. An interest in radiological effects supported several Scripps expeditions in the early 1950s. Revelle's interest in the topic fostered new research initiatives. In those years he hired several new faculty members, including Edward Goldberg and Hans Eduard Suess, whose research emphasized use of radioactive tracers. In addition, Revelle and several Scripps colleagues played a leading role in studies on the biological effects of atomic radiation. This paper will help to illustrate how military and social interests influenced work done in mid twentieth-century American oceanography.

"From H-bomb to Dive Sites—the Effects of Nuclear Experimentation
on the Marine Environment of the Northern Pacific"

Nancy Pollock

Victoria University, Wellington

Nuclear testing experiments have produced a vast number of scientific studies of the marine as well as the terrestrial environments of Pacific atolls. Since 1946, United States testing programmes in the area surrounding atolls

of the Northern Marshall Islands have examined closely the effects of nuclear radiation on the biota, as well as the effects of blasting on the geomorphology. Studies by the Washington University Marine Laboratory drew on the expertise of a large number of scientists from a diversity of institutions. They have been followed to present times as experts assess the levels of radiation deemed safe for the return of atoll populations to permanent habitation. These two bodies of information provide us with contrasting perspectives on nuclear radiation as it has effected marine environments of the Pacific. The early studies contributed greatly to our basic knowledge of the components of environments surrounding atolls. The later cleanup studies showed the complexities of understanding how persistent radiation must be assessed to ensure safe human habitation. Nuclear testing experimentation will go down in the annals of science for both its theoretical and applied findings.

BREAK 10:30–11:00

SESSION 2 (11:00–12:30). *Exploring the Pacific Region — Discovery, Science and Politics*

“George Davidson: Polymath Geographer Across the World’s Oceans”

David Stoddart

University of California, Berkeley

George Davidson (1825-1911) during his lifetime became perhaps the most distinguished scientist in California, making his career with the U.S. Coast Survey (later the U.S. Coast & Geodetic Survey) beginning in 1845 and spanning exactly half a century. He engaged in hydrographic surveying and coastal mapping from Mexico to Alaska and laid down the two major baselines on which the topographic survey of California depended. He was responsible for the establishment of observational astronomy in California, surveys for a Panama Canal, the 1874 Transit of Venus Expedition to Japan, irrigation and land reclamation projects in Asia, Africa and Europe, and published substantially on the history of discovery and place names in California. A member of many distinguished scientific societies, including the National Academy of Sciences, at age 73 he became first Professor of Geography and founder of the Department of Geography in the University of California at Berkeley—the oldest such department in the English-speaking world. His life spanned the California Gold Rush of 1849, the publication of *On the Origin of Species* in 1859, the founding of the University of Cali-

ifornia in 1868, and the San Francisco earthquake and fire in 1906. Yet he is now virtually unremembered in any of the standard histories of geography. This paper asks why this man of immense energy, great technical accomplishment, and prodigious output has fallen from view since he died, for, when he was born in 1825 geographical science was virtually nonexistent in California and the western United States and by the time he died shortly before the First World War he had transformed it.

“Claude ZoBell and the Foundations of
Marine Microbiology 1940-1946”

Donald McGraw

University of San Diego

I have argued in previous papers (V and VI International Congresses of History of Oceanography; proceedings of each in press) that Claude Ephraim ZoBell (1904-1989) of the Scripps Institution of Oceanography was the founder of modern marine microbiology. His place as the final disputationist of the existence of a postulated deep-sea “azoic zone” has been chronicled (V Congress). As well, his early years (his publications from 1933-1939) as the scientist who eventually became his discipline’s leader have also been analyzed (VI Congress). The current study, another in the series to be used in a book length work, assesses his publications and the growth of his discipline—and his place in it—from 1940 until his magnum opus, the book *Marine Microbiology* (Chronica Botanica Press) was published in 1946. It has been held, and will be further demonstrated, that ZoBell founded much of what became modern marine microbiology by laying the foundations of virtually all the principle lines of research in this discipline from the first third to the final third of the 20th century, when he was the undisputed ‘grand old man’ of the field.

“American Scientists and Cooperative Oceanography:
the Asian Context, 1958-1965”

Jacob Hamblin

University of California, Santa Barbara

Partly to offset the complications of the Cold War competition of the early 1960s, American oceanographers consciously decided to promote multilateral activities through international bodies such as the Scientific Committee on Oceanic Research and the Intergovernmental Oceanographic Commission. They soon discovered that the Cold War was only part of the problem. When Americans asked scientists in South Asia to participate in

a cooperative research expedition, they were surprised by the skepticism which pervaded these communities. Some such as India, were wary of cooperative enterprises that corralled them under the rubric of “developing” scientific communities. Others distrusted the American plan for international cooperation, not because they felt that the United States was disingenuous in its peaceful intentions, but because they felt that cooperation would encourage the already enormous Japanese fishing fleet off their shores. This paper addresses the political difficulties of American efforts to promote international cooperation in oceanography in the Pacific and Indian Ocean regions during the late 1950s and early 1960s. Certainly the greatest source of political tension during this period was between Americans and Soviets. But no less crucial to the successful execution of these research projects were the political nuances among other participants. Although many of the conflicts were greatly conditioned by the prevailing Cold War, many more were defined by events and situations specific to the Pacific and Indian ocean region, particularly vis-à-vis Japan and India. For example, by the late 1950s, an influence-seeking Japan was attempting to implement its own American-inspired technical aid program for Asia. At the same time, India struck a balance between participating in an American plan while developing a bilateral cooperative relationship with the Soviet Union. These and other facets of international cooperation in oceanography, which take into account regional context, have not received due attention from historians.

LUNCH BREAK 12:30–14:00

SESSION 3 (14:00–17:30) *Colonialism, Imperialism, and the Exploration of the Oceans*

“‘The Naturalist’s Empire’: Colonial Service and Scientific Opportunity
in the Career of Sir Everard Im Thurn, 1878-1910”

Sara Sohmer

Texas Christian University

It is commonly accepted by historians of both British science and the British Empire that an important symbiotic relationship had evolved between the two by the last half of the Nineteenth Century. Studies of this critical relationship have focused on the acquisition of the vast quantities of scientific data provided by the imperial framework, the interplay between the imperial project and the evolution of western scientific institutions, the transfer

of western scientific practice to the colonial sphere, and the role of science in shaping public perceptions of the colonial sphere. The interaction of science and empire in the lives of the missionaries, planters, military officers and colonial officials who undertook much of the day to day work of science in the remote corners of the empire is, however, largely uncharted. This paper, through an examination of the dual career as naturalist and colonial administrator developed by Sir Everard Im Thurn in British Guiana and Fiji, is designed to bring some of the critical issues of the science and empire interaction into sharper focus. How, for example, did servants of empire, in an era when science education and science livelihoods had a limited place in British life, acquire an additional identity as servants of science? What, if anything, did their experience of science bring to their primary roles as builders of empire? Did these dual roles represent separate or blended spheres? And if scientific perceptions in fact informed their policy-making role, what value did the imperial hierarchy they served place on their scientific expertise?

“Trends in the Development of Studies of Ocean-Climate
Interactions in West and Central Africa”

S.O. Ojo

University of Lagos

Trends in developments of studies on ocean-climate interactions are discussed with particular reference to West and Central Africa. In particular, I first examine efforts made in the understanding of interactions during the pre-colonial period, the contributions of the oceanographic programs and activities related to the topic during the colonial period, and developments which have been taking place during the post-colonial period with particular reference to: (a) activities by governments and government institutions set up to perform oceanographic activities in the region; (b) academic and research institutions of higher learning; and (c) international bodies and institutions whose oceanographic activities directly or indirectly affect ocean-climate systems and especially interactions in the region. The pre-colonial period was characterized by indirect information obtained mainly by voyagers and explorers to West and Central Africa during the pre-colonial period, but formal scientific analysis and studies on ocean-climate systems in general and ocean-climate interactions in particular started during the colonial period. Many of the studies available during the colonial period were quite useful, although most came from disciplines outside oceanography. Consequently, the information was little used by oceanographers for

impact analysis and application of oceanography. During the post-colonial period, oceanographic programmes and services were tailored mainly to the immediate economic needs of the countries in West and Central Africa. Consequently, ocean-climate interactions were neglected in most of the programs and services. Within the last two decades interdisciplinary activities have yielded fruit in the studies of ocean-atmosphere interactions in the region. Future development of programs in oceanography in the region requires change from an emphasis on “only the immediate economic gains” to concentration on ocean-atmosphere processes in general and teleconnections and ocean-climate interactions in particular. Interdisciplinary and co-operative activities and co-ordination of activities related to oceanography in general and ocean-climate systems in particular are needed.

“European and Local Contributions to the Development of Natural and Marine Sciences in Chile: XVIth to XVIIIth centuries”

José Stuardo

University of Concepcion, Chile

Since Magellan’s times, the Chilean coast was the node for European discoveries and expansion in the Pacific and along the West Coast of America. The combined participation of conquerors, navigators and priests initiated the colonization of the New World and the ensuing introduction of European culture, commercial activities and religion. Around fifty expeditions were registered during the XVIth, XVIIth and XVIIIth centuries (some of them originated in the Spanish colonies), involved in exploration, cartographic and longitude surveying, territorial claims, and, not the least, piracy. Early settlements and racial mixing following military organization and colonization soon developed in the foundation of cities, the use and exploitation of natural resources and, the establishment of permanent sea routes for commerce and communication, all of this giving rise to the first manuscripts and publications on social and political aspects of colonial life, mainly authored by priests. Most of these writings were also the first scientific attempts to describe geographical traits, plants, and animal life of the region. A differentiation between the works of Spanish and local chroniclers and naturalists and foreign expeditions’ reports may be used to analyze the first contributions to natural and marine sciences up to Humboldt’s time. In the first group the contributions of the Jesuits (stimulated by Kircher?) stand out, including the first map of Patagonia in 1646 and the first publications on natural history impacting Europe in 1776 and 1782. In turn, the first reports on ocean circulation and sea temperatures, grew gradually out of the devel-

opment of European navigational skills and search for answers to ocean related "philosophical subjects."

BREAK 15:30 to 16:00

"International Development of Marine Sciences in the Black Sea Area"
Alexandru Bologna

National Institute for Marine Research, Constanta, Romania

Marine sciences started around the Black Sea in the second half of the 19th century. Since then, physical, chemical, biological and fisheries oceanography developed in universities or research institutes of all nations of the region. Most progress in Black Sea research has occurred by regional and international cooperation since 1990, including a Cooperative Marine Science Programme, regional ecosystem modelling, observation and forecasting of the sea, integrated coastal zone management, studies of the effect of the Danube on the sea, and many other programs. New bibliographies and databases for the region have also appeared.

"Imperial Politics and Oceanography"
Mira Zore-Miranda

Institute of Oceanography & Fisheries, Split, Croatia

The European Great Powers and the United States enlarged their political and economic influence between the last quarter of the 19th century and the beginning of World War I. Control of sea traffic was important in political expansion, as was the organization of oceanographic expeditions. At the forefront was England, which had organized more expeditions than the other participants, the U.S.A, Germany, France, Norway and Italy. The initiatives for expeditions diminished between the two world wars but increased again after World War II. These attempts at control of the oceans resulted in significant developments in oceanography.

**"Distant Influences by ICES on Marine Research
Strategies in the Early 20th Century"**

Walter Lenz

Institut für Klima- und Meeresforschung, Universität Hamburg

The International Council for the Exploration of the Sea (ICES) was founded in 1902 by northern European countries to coordinate marine research in the North Atlantic and Arctic with the goal of bringing more light to the relationship between living resources and the physical-chemical envi-

ronment. The most essential agreement was the standardization of instruments, analytical methods, and strategies of investigation. Consequently the Nansen bottle, Copenhagen Standard Water for the determination of salinity, and the Hensen Net for plankton collection were used, and schemes for hydrographic sections were developed. After World War I, ICES member countries, especially Germany and Great Britain, extended their marine research into the South Atlantic and Antarctic regions (*Meteor Expedition 1925-27*, *Discovery II* surveys 1932-39). This study traces the influence of experiences in ICES on national research goals and strategies in the south—both on the scientific and personal levels.



ELECTIONS

A general meeting will be held during the Congress to elect a new Pacific Circle executive board. In addition, the current executive has concluded that the duties of the Vice President militate in favor of splitting the position so that, in particular, the organization of sessions and symposia, and the publication of papers therefrom, would become a shared responsibility. A motion will therefore be introduced to replace the existing position of Vice President with two positions: a Northern Vice President and a Southern Vice President.

The executive has assembled the following slate of officers. Nominations from the floor will also be welcome.

President:	E. Alison Kay , Professor Emeritus of Zoology, University of Hawaii, Manoa
Northern Vice President:	Michael A. Osborne , Associate Professor of History & Environmental Studies, University of California, Santa Barbara
Southern Vice President:	Roy MacLeod , Professor of History, University of Sydney
Secretary-Treasurer:	[pending]
Bulletin Editor:	Peter H. Hoffenberg , Associate Professor of History, University of Hawaii, Manoa

For further information, please contact:

Roy MacLeod <roy.macleod@history.usyd.edu.au> or
 Fritz Rehbock <frehbock@hawaii.edu>

Information about the International Congress is being updated during the first week of each month at <<http://www.smhct.org>>. That web site can be used to access the current Circular, which can be read in English, Spanish or French. Further questions? Contact Prof. Juan José Saldaña at:

xxiichs@servidor.unam.mx

or

c/o XXIst International Congress of History of Science
Apartado Postal 21-873
Mexico City, D.F. 04000, Mexico

The conference website is <<http://www/smhct.org/default.htm>>

FORTHCOMING MEETINGS

—DENVER

The Pacific Circle is sponsoring a panel on “Collecting, Exhibiting and Preserving: A Century of Colonial Science in the Pacific, 1850-1950” for the upcoming History of Science Society annual meeting in Denver, Colorado, to be held November 8-11, 2001. **Michael Osborne** (University of California, Santa Barbara) will chair the session and **Janet Garber** (Independent Scholar) will provide commentary on the following three papers.

“Natives, God and Health: John Thomas Gulick Collecting in Hawaii”

Joshua B. Buhs

University of Pennsylvania

What prompted the missionary John Thomas Gulick to collect thousands of shells in Hawaii in 1853? The shells later became the basis for his conclusion that isolation is an important factor in evolution, a claim that influenced Sewall Wright and Ernst Mayr almost a century later. For the most part, those who have studied Gulick ignore the question of why he collected so many shells or gloss over it quickly to get to his evolutionary ideas. This paper tacks differently, dwelling on the question and not answering it by seeing Gulick as a scientist looking ahead to evolution, but by seeing him on his own terms. From this position, three interlocking reasons for his commitment to collection stand out: his life in Hawaii; his health; and his religious views. Living on a frontier outpost, Gulick was constantly beset by the temptation to shuck traditional morality and “go native.” He felt especially vulnerable because he—like the Hawaiians and unlike his family—found great enjoyment in nature, especially shells. Sickly since he was a child, he felt that he lacked the strength to resist moral corruption.

Borrowing from Natural Theology and Charles Darwin's *Journal of Researches*, however, Gulick found a way to justify his interest in nature and shells. A large collecting expedition proved his strength: to collect shells he hiked among scores of villages wracked by small pox, his vigor in stark contrast to the state of the natives. The great number of shells that he collected would later prove essential to dissecting geographic variation, but at the time the work was driven by different imperatives. In addition to fitting together pieces of Gulick's biography to make sense of his collecting practices, this paper contributes to the growing literature on the field sciences, showing how ideas imported from other realms of culture disciplined and directed work in the field.

"19th-Century Australian Science on Display:
Ferdinand von Mueller & the Exhibitions"

Peter H. Hoffenberg

University of Hawaii, Manoa

This paper considers the various roles that exhibitions played in helping to create a sustainable public science in 19th-century Australia, notably in the colony of Victoria. Ferdinand von Mueller, the official Colonial Botanist, provides a suggestive and revealing test case in light of his prominence in the world of science and his extensive exhibition activities. He was active as commissioner, exhibitor, judge and author at shows both in Australia and abroad from the mid-1850s through the later 1880s. That participation was important to his own sense of authority and to his self-conscious addressing of the trinity of tyrannies shaping science and society in Australia: isolation, distance and wandering. Von Mueller embraced exhibitions as effective ways to create scientific centers, initiate and expand exchanges, articulate local scientific knowledge, and mobilize and connect scientists in the various Australian colonies. To some degree, the display of science at the exhibitions was not made in the name of public science alone, but also in the name of nationalism and social order. Exhibitions connected scientists, scientific knowledge and the practice of science in ways that made it possible to talk about Australian science and Australia itself in the years before the formal declaration of the Australian Commonwealth in 1901.

"Displacing Frontiers: The Pacific Science Board's Campaign
for Conservation in the Post-War Pacific"

Gary Kroll

University of Oklahoma

This paper examines the work of the Pacific Science Board, an arm of the National Research Council established to facilitate the work of American naturalists and anthropologists in the Pacific territories that fell under U.S. trusteeship after World War II. The PSB functioned as a scientific advisory board that provided the U.S. Navy with the information for sustaining military colonization and the benevolent governance of indigenous cultures. I introduce the history of the PSB as a new “big natural history,” a federally-funded effort to systematize and catalog Micronesia’s natural and human resources. I will also focus on the initiative to conserve and preserve island landscapes, a primary concern of western naturalists at the end of the nineteenth century and start of the twentieth. PSB bureaucrats and field workers viewed the Micronesian landscape as an extension of the American frontier, and they transported those values forged in the American west to the Pacific. In the final analysis, the conservation campaign in Micronesia failed not only because the goal was incompatible with the military concerns of the U.S. government, but also because American naturalists viewed the region as a new U.S. territory. They displaced their conceptions of the American frontier west on to a distant Pacific region that resisted the tradition of American conservation strategies.

PUBLICATIONS

A number of the Pacific Circle papers presented at the History of Science Society meeting in Vancouver (November 3-6, 2000) will be published in *Pacific Science*, volume 55, number 4, October, 2001, under the editorship of Roy MacLeod. The issue is devoted to “Museums and the Cultivation of Knowledge in the Pacific.” Among the included authors and papers are:

Richard W. Burkhardt, Jr. “Naturalists’ Practices and Nature’s Empire: Paris and the Platypus, 1815-1833;”

Jim Endersby, “‘From having no Herbarium’—Local Knowledge versus Metropolitan Expertise: Joseph Hooker’s Australasian Correspondence with William Colenso and Ronald Gunn;”

John Barker, “Dangerous Objects: Changing Indigenous Perceptions of Material Culture in Papua New Guinea Society;”

Alexia Bloch, “Cruise Ships and Prison Camps: Reflections from the Russian Far East on Museums and the Crafting of History.”

For copies of this issue, please contact: Journals Department, University of Hawaii Press, 2840 Kolowalu Street, Honolulu, HI 96822, USA.

MEMBERS' NEWS

Marcos Cueto's *The Return of Epidemics: Health and Society in Peru During the Twentieth Century* has just been published as part of Ashgate's "History of Medicine in Context Series." Chapters include: "The Stigma of Bubonic Plague in Early Twentieth-Century Peru;" "Sanitation from Above: The Rockefeller Foundation and Yellow Fever;" "Public Health and the Community: Epidemic Typhus and Smallpox in the Andes;" "The Recurring Burden of Malaria;" and "Blaming the Victims: The 1991 Cholera Outbreak." Please contact Ashgate Publishing at <orders@ashgate.com> for book orders and additional information. Marcos is currently a researcher at the Instituto de Estudios Peruanos in Lima and a Professor at the Universidad Peruana Cayetano Heredia.

Dr. Jacob Hamblin, a recent graduate of the History of Science program at the University of California, Santa Barbara, has been awarded a post-doctoral fellowship at the Centre Alexandre Koyré in Paris. Dr. Hamblin will use the fellowship to continue his studies on the history of oceanography, the politics of UNESCO, and internationalism during the Cold War.

A special thanks and congratulations to **David Stoddart**, who has guided the Pacific Circle as its President since 1985 and recently earned the American Geographical Society's George Davidson Medal for Pacific research. This is only the seventh time the medal has been awarded since its establishment in 1946. David is currently investigating the life of Davidson, the first Professor of Geography at University of California, Berkeley and, perhaps, anywhere in the English-speaking world, and will report on his research at the Mexico City Congress in July. David will also be on hand to chair the Pacific Circle business meeting at the Congress.

As David relinquishes the President's gavel, it would seem appropriate to take a moment and consider his many contributions to science in the Pacific and beyond. After taking degrees at Cambridge, David spent nearly three decades as a member of the Geography faculty there, before accepting a position as Professor of Geography at Berkeley in 1988. He also held visiting positions with the University of Nanjing and the Smithsonian Institution. David's research efforts on countless field investigations and expeditions resulted in too many publications and international awards to list, but suffice it to say that both venues represent his significant contribution to learning, scholarship and teaching. His Ph.D. students include some of the

most influential scholars of coral reefs, mangrove and salt marsh systems. Finally, David has served on dozens of scientific committees and panels, devoted time as a founding member and/or member of the editorial board of significant scholarly journals, and has had time to enjoy his wife and two children. He most certainly deserves to be among the seven recipients of the Davidson Medal.

IUHPS/DHS NEWS

The Annual Report of the Pacific Circle for 2000 was submitted on March 7, 2001 to the Secretary General of the International Union for the History and Philosophy of Science, Division of History of Science. Copies are available by contacting Peter Hoffenberg at peterh@hawaii.edu.

The Inaugural Symposium of the Commission on the History of Meteorology, IUHPS, will be held at the upcoming XXIst International Congress of History of Science, Mexico City, July 2001. For further information, please contact:

Prof. James R. Fleming, President
Commission on History of Meteorology
STS Program
5881 Mayflower Hill
Colby College
Waterville, ME 04901, USA.
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PACIFIC WATCH

Frédéric Angleviel, University of New Caledonia, reports from Noumea about an upcoming international conference on archaeology in the Pacific, "Archéologie du Pacifique: bilans et perspectives." The conference will be held in Noumea during July, 2002, and additional information is available at smp@gouv.nc.

CONFERENCE REPORTS

"Botany in Colonial Connection," an international and interdisciplinary conference, was held on May 17-19, 2001 in Potsdam (Berlin), organized

by **Londa Schiebinger** (Pennsylvania State University) and **Claudia Swan** (Northwestern University). The conference papers and discussions asked questions about the relationships between botanical science and colonization from the 17th to the 21st centuries: How did voyagers who entered unknown and often hostile terrain choose what to collect? How did they obtain their samples? Whose knowledge did they record and transmit? How did they preserve specimens for shipment? Finally, what kind of balance can be struck between the first world and host countries, and between use and the need for conservation of plants and the cultures from which they come? Several papers addressed specifically Pacific-region issues and others might be of comparative interest. The organizers are currently pursuing publication options for the conference papers. Further information is available from: Londa Schiebinger, Department of History, Weaver Building 108, Pennsylvania State University, University Park, PA 16802 USA.

Janet Garber has been kind enough to send a report about general and Pacific science matters from the West Coast History of Science Society & Southern California Colloquium in the History of Science, Medicine and Technology conference held at the University of California, Los Angeles on April 27-29, 2001:

Over the three-day period, sessions were held at three places: Friday at the William Andrews Clark Memorial Library near the center of Los Angeles; Saturday at the Center for 17th- and 18th-Century Studies in Royce Hall on the UCLA campus; and Sunday in the Biomedical Library at the Center for the Health Sciences, also on the UCLA campus. Saturday's meeting was in conjunction with the Spring meeting of the Southern California Colloquium in the History of Science, Medicine and Technology, arranged by Margaret Jacob (UCLA).

The speakers reflected the modern world: they came from the Middle East, Brazil, Germany, and Sweden, in addition to the United States, although all the Friday and Saturday presenters are currently attached to California universities. Saturday's Colloquium speakers came from MIT, Northwestern, and the University of Florida, in addition to UCLA. Topics included medicine, education, the Cold War, bioethics, astronomy, 17th-century British politics and science, 20th-century German politics and science, Darwin's explanatory rhetoric, and economic history.

Although the sessions were held only a few scant miles from the Pacific Ocean, the only paper explicitly concerning the Pacific area was part of Saturday's Colloquium on technology, education and economic develop-

ment. It was given by Alice H. Amsden (MIT) and entitled "Adding Foreign vs. National Ownership to Technology and Development: Is the Fit Better?" She discussed reasons why dominant firms in Taiwan have grown at extremely fast rates, some having become the largest industries in the developing world. They are technology borrowers rather than innovators, and have succeeded partly by investing heavily in production capabilities, while the government invested in educating engineers and managers. Ownership was shifted rather quickly from foreign investors to domestic corporations in Taiwan, adding to the small nation's wealth. The remaining Colloquium speakers discussed developments in England and the United States.

Papers are available at: <<http://www.sscnet.ucla.edu/history/jacob/colloquium/index.html>>. Please follow the links to the program for April 28. The password is: colloquium.

The WCHHS papers on Friday and Sunday were an eclectic mix: they concerned medical practice in England, Sweden and the United States, Horace Mann and testing in 19th-century education in the United States, efforts to establish Psychology as a true science, to manufacture a nuclear-powered space ship during the Cold War (a pre-Star Wars fantasy project), Copernicus ignored in the Ottoman Empire in the 17th century in favor of astrology, Melancthon's influence on Bacon, Darwin's unique creative patterns of scientific explanation, and Politics and Science—both physical and biological—in 20th-century Germany.

The usual Saturday evening banquet was held at the art-filled home of Margaret Jacob, who arranged and chaired the Saturday Colloquium. The graduate student prize was not awarded, because too few graduate students presented papers. It is hoped that next year more students will present.

FUTURE CONFERENCES & CALLS FOR PAPERS

20-24 June 2001. "Maury III: The Machine in Neptune's Garden—Historical Perspectives on Technology and the Marine Environment," the Third Biennial Conference on the History of Oceanography, to be held at the Monterey Bay Aquarium Research Institute, Monterey, CA. Please contact Gary Weir, U.S. Naval Historical Center, at <weir.gary@nhc.navy.mil>.

24 June-1 July 2001. "Geological Resources and History: Rocks and Dinosaurs," the annual meeting of INHIGEO, to be held in Lisbon and Aveiro.

For more information, please contact Prof. Manuel Pinto, Department of Geosciences, University of Aveiro, 3810-Aveiro, Portugal. Email: mpinto@geo.ua.pt

25-28 June 2001. Annual Conference of the Australasian Association for the History, Philosophy and Social Studies of Science, to be held at the University of Melbourne, Parkville, Victoria, Australia. Conference streams include: History and Sociology of Medicine; History of Science and Technology; Sociology of Science and Technology; Public Understanding of Science and Medicine; and Philosophy of Science. Rima Apple will deliver the Dyason Lecture on "The More Things Change...: An Historical Perspective on the On-Going Public Debate Over Vitamin Supplementation." There will also be "Authors Meet Critics" sessions with David Turnbull, Brian Ellis, Steve Fuller and Bob Paddle. The conference includes a two-day symposium on "Public Understanding of Science and Medicine."

Conference details are available at the meeting's web site: <http://www.arts.unimelb.edu.au/amu/ucr/aahpsss2001/>.

For additional information, please contact Neil Thomason at n.thomason@hps.unimelb.edu.au

2-3 July 2001. "Maritime Empires: The Operation and Impact of Nineteenth-Century British Imperial Trade," an international conference organized and hosted by the National Maritime Museum, Greenwich, England. Papers will explore the relationships between Britain, imperial enterprise and the sea through an interdisciplinary focus on issues of control, technology, commerce, culture and communication. Several papers explore specifically Pacific topics, including Jane Samson's "Trade, the Navy and 'Civilisation' in the South Pacific." This meeting is the first event in a week of maritime history, culminating with "The Sea," the Anglo-American conference of historians at London's Institute of Historical Research. Enquiries about the National Maritime conference can be directed to Helen Jones, Research Administrator, National Maritime Museum, Greenwich, London, SE10 9NF, England. Email: research@nmm.ac.uk

8-14 July 2001. XXIst International Congress of History of Science, to be held in Mexico City. The conference theme is "Science and Cultural Diversity." See above, page 2.

18-22 July 2001. Biennial Meeting of the International Society for the His-

tory, Philosophy, and Social Studies of Biology, at Quinnipiac University in Hamden, Connecticut. Papers prepared by participants from over twenty different countries will cover topics ranging from agricultural experiment stations to visual images of zoology, from history of natural history to analysis of mechanisms in biology, from the nature of research groups to issues about regulatory laws. Information is posted on the meeting's web site <<http://www.phil.vt.edu/ishpsb/2001/program.htm>>.

Please contact:

David Valone at david.valone@quinnipiac.edu, or

Kathy Cooke at kathy.cooke@yale.edu

25-28 October 2001. "Pacific Islands, Atlantic Worlds," a Pacific studies symposium, to be held at New York University. Co-sponsored by the University of Hawaii Center for Pacific Islands and NYU's Asian/Pacific/American Studies Program, this meeting will provide an introduction to Pacific Islands Studies, including issues of concern to archivists, archaeologists and anthropologists. Pacific collections in museums and archives are among the specific topics to be considered. The conference begins with a performance and reception on October 25. For more information, contact:

Adria L. Imada at ali201@nyu.edu, or

Fannie Chan at fanniechan@yahoo.com

8-11 November 2001. Annual Meeting of the History of Science Society, to be held in Denver, Colorado. See above, page 11.

11 November 2001. "British Naturalists in their Local Setting," at Rawley House, Oxford. Further details available at ppdayweek@contend.ox.ac.uk

3-5 December 2001. "Culture and Nature in the Pacific," C.O.R.A.I.L Colloquium 2001, to be held in Noumea and Kone, New Caledonia. This multi-disciplinary international conference addresses man's relationship to and with nature, including scientific, technological, philosophical, medical and artistic connections. Proposals for papers in French or English of no more than twenty-five minutes should include a detailed summary (500 words) and should be submitted by June 30 to Hamid Mokaddem, BP 8203, 98807 Noumea Sud, New Caledonia. Email: Hmoka@lagoon.nc

11-14 December 2001. "Maritime History Beyond 2000: Visions of Sea and Shore," organized by the Australian Association for Maritime History,

to be held at the West Australian Maritime Museum, Fremantle, Western Australia. This conference intends to bring together historians and researchers working on issues such as commerce and trade, ports and port cities, naval history, shipping and ship building, and the maritime environment. Authors are encouraged to consider a comparative approach to answer the following questions: What are the main research priorities for maritime history in the 21st century? How does your research contribute to this international research agenda? The deadline for registration is September 1, 2001. Please email inquiries to mh2001@murdock.edu.au

17-21 March 2003. XXth Pacific Science Congress, to be held in Bangkok, Thailand. Hosted by the National Research Council of Thailand, in collaboration with the Thai Academy of Science and Technology and the Pacific Science Association, this Congress will examine the role of science and technology in promoting sustainable and environmentally sound economic development. If you are interested in presenting a paper and/or poster, please contact the Congress Secretariat: Ms. Wanasri Samanasena, National Research Council of Thailand, c/o Translation and Foreign Relations Division, 196 Phahonyothin Road, Bangkok 10-900, Thailand; fax: (671) 734-3676/2296; email: Translation@fc.nrct.go.th

EXHIBITIONS AND MUSEUMS

“Collected: 150 Years of Aboriginal Art and Artifacts” continues at the Macleay Museum at the University of Sydney, New South Wales, Australia, through the end of 2002. This exhibition showcases the Museum’s outstanding collection of boomerangs, baskets, bark paintings, spear-throwers and other ethnographic objects, many of which are unique in both their quality and decoration. Especially significant are the bark paintings collected in the Port Essington area on the northern Australian coast before 1878. Other geographical areas of strength are King George’s Sound and the Kimberley Plateau in Western Australia, Port Darwin and Arnhem Land in the Northern Territory, and the rainforest areas of north Queensland. Some items are thought to have been collected as early as the 1850s. The exhibition is arranged geographically so that regional similarities of design can be noted. Please contact the Macleay Museum at [macleay@macleay@macleay.usyd.edu.au](mailto:macleay@macleay.usyd.edu.au) for further information.

“Musée de L’Histoire Maritime” (11, Avenue James Cook) and “Musée du Baigneur” (Place de la Transportation) are both open to the general public and scholars in Noumea, New Caledonia.

EMPLOYMENT, GRANTS AND PRIZES

Kagoshima University Research Center for the Pacific Islands seeks to appoint a visiting foreign researcher at the rank of professor or associate professor, to be in residence and engage in collaborative research. The Center aims to promote interdisciplinary research on islands and island-zones in Oceania and surrounding areas. The five project areas are: people-nature interactions, physical geography, social and cultural changes, medical approaches to human ecology, and political and economic functions of island nations in the international community. Candidates must be able to engage in research in residence for six to eleven months between 1 May 2002 and 25 March 2003. Inquiries should be addressed to: Kagoshima University Research Center for the Pacific Islands, 1-21-24, Korimoto, Kagoshima, Japan 890-8580, or by email to tatoken@kuasmail.kuas.kagoshima-u.ac.jp. The Center website is: <http://cpi.sci.kagoshima-u.ac.jp/index.html>.

The Royal Society of London provides grants to support publication of research in the history of science, technology, and medicine. The funds are intended to help defray the costs of publication of scholarly books that are likely to have a limited sale, or which need, for example, to be supported by expensive plates. Grants are also available for limited identifiable research in the above areas and to attend overseas conferences. Application forms and further details are available from Miss J. E. C. Lewis, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, England or from the Society’s website at <http://www.royalsoc.ac.uk>.

RESEARCH, ARCHIVES AND COLLECTIONS

The Wellcome Library announces that the Medical Archives and Manuscripts Survey (MAMS) is now on line. This is a comprehensive and detailed guide to primary records for the history of medicine and health-care

held in the archives and libraries in London, for the period from 1600 to the middle of the 20th century. That material includes papers generated by doctors and hospitals, local authorities, patients and businesses. There are materials about treatment and research, as well as about nutrition, water supply, sewage disposal and the health implications of death and housing. Survey reports can be accessed at <<http://www.wellcome.ac.uk/mams>>.

The Centre for the History of Science, Technology and Medicine at the University of Manchester (England) has undergone major developments in recent years. CHSTM now has nine permanent members of staff with diverse teaching and research interests, as well as Masters and Ph.D. programs. Those graduate programs include an M.Sc. in the History of Science, Technology and Medicine; an M.A. in the History and Social Anthropology of Science, Technology and Medicine; and various Ph.D. and postdoctoral programs. Supplementary funding and TA-ships are available for students; visiting positions are available for faculty members and other scholars. Please consult the Centre's web site at <www.man.ac.uk/CHSTM> or write Dr. Ian Burney, CHSTM, The University of Manchester, Oxford Road, Manchester M13 PL, England.

BOOK AND JOURNAL NEWS

Nicolaas A. Rupke, ed. "Medical Geography in Historical Perspective," *Medical History*, Supplement Number 20 (2000), published by the Wellcome Trust Centre for the History of Medicine, contains a number of articles of possible interest to Pacific Circle members. Among them are: **Michael A. Osborne**, "The Geographical Imperative in Nineteenth-Century French Medicine;" **Annemarie de Knecht-van Eekelen**, "The Debate about Acclimatization in the Dutch East Indies, 1840-1869;" and **Warwick Anderson**, "Geography, Race and Nation: Remapping 'Tropical' Australia, 1890-1930." These and the other essays continue the recent trend of looking at medical geography in historical perspectives, examining its practices and theories, its national traditions and the social and economic conditions of its popularity during the nineteenth century, if not today in some quarters. Such interest led to the symposium on "Medical Geography in Historical Perspective," held at the Institut für Geschichte der Medizin (now Institut für Ethik und Geschichte der Medizin) of the Georg-August-Universität Göttingen in 1996. Most of the chapters in this volume are based on papers presented at that symposium.

ScienceWeek, a weekly email publication for scientists, science educators and science policy-makers, requests copies of abstracts or entire texts of future published papers, particularly abstracts or reports that might be of interest to a wide scientific audience. The electronic publication attempts to improve communication between the sciences by presenting detailed, authoritative cross-discipline explication of new scientific research. For detailed information, consult the web site at <<http://www.scienceweek.com>>. Email can be sent to: editors@scienceweek.com

The current *Macleay Museum News* (April 2001) includes a short description and analysis of Lord Howe Island which might of interest to entomologists, naturalists and environmental scholars. Of particular note is the discussion of the Island's unique species of birds and its stick insects. Both offer interesting case studies on this isolated island, 700 km north-east of Sydney. Contact Macleay Museum News, Macleay Museum, University of Sydney, NSW 2006, Australia.

The *Asia-Pacific Population Journal* is currently published by the U.N. Economic and Social Commission for Asia and the Pacific (ESCAP). For more information, please contact John Loftus at loftus.unescap@un.org

"Nature and Empire: Science and the Colonial Enterprise," a special issue of *Osiris* (2nd series, volume 15, 2000) includes several essays relevant to the history of science in the Pacific. Edited by **Roy MacLeod**, this volume discusses the interplay of scientific and colonial developments in India, Canada, Latin America, as well as other historical contexts. It does so with scholarship that is from both the imperial, or European, and the colonial, or local perspectives, and which considers the complex relationships between technology and science. Collectively, the essays present similarities and contrasts among the national histories of colonial science and do so, in some illustrative cases, in comparative terms. For example, **Michael A. Osborne** contributed an essay entitled "Acclimatizing the World: A History of the Paradigmatic Colonial Science" and **David Wade Chambers** and **Richard Gillespie** contributed "Locality in the History of Science: Colonial Science, Technoscience, and Indigenous Knowledge." The volume is divided into four parts: "Imperial Legacies;" "Milieux and Metaphor;" "Science, Culture and the Colonial Project;" and "Colonial Science and the New World System."

The Hawaiian Historical Society recently announced that the 2000 issue (volume 34) of *The Hawaiian Journal of History* is now available. Highlights of this issue include two articles about 19th-century Hawaiian culture—Hawaiian language policy and the courts, and the banning of hula—and English translations of Japanese and French observations of incidents during the early years of the Hawaiian Kingdom. Other articles look at later 19th- and early 20th-century issues. Please contact Barbara Dunn or Karen Sinn at the Hawaiian Historical Society, 560 Kawaiahao Street, Honolulu, HI 96813, USA.

Christian Jost, ed. *The French Speaking Pacific: Population, Environment and Development Issues* is now available from Boombana Publications, P. O. Box 118, Mt. Nebo, Australia, 4520.

A limited reprint of *Science in a Sea of Commerce—The Journal of a South Seas Trading Venture by Samuel Stutchbury*, edited by David Branagan, is available from the editor and publisher. Please contact Dr. David Branagan, 83 Minimbah Road, Northbridge, N.S.W., Australia, 2063. The cost is A\$42.00. Also available is *Field Geology of New South Wales* by Branagan and G. H. Packham, available from New South Wales Department of Mineral Resources, 29-57 Christie Street, St. Leonards, N.S.W., Australia, 1590. The cost of that publication is A\$39.45.

BOOK REVIEWS

Mark J. Rauzon. *Isles of Refuge: Wildlife and History of the Northwestern Hawaiian Islands*. (A Latitude 20 Book Imprint). Honolulu: University of Hawaii Press, 2001. Pp. 216. Color and B/W photos, illustrations, maps, appendix, bibliography, notes. Cloth: US\$60.00 and ISBN 0-8248-2209-9. Paper: US\$29.95 and ISBN 0-8248-2330-3

The Northwestern Hawaiian Islands are among the best kept secrets of the wonders of Hawaii. The islands abound with legend and story, fact and fiction. The stone images from Necker were perhaps brought by settlers from elsewhere in Polynesia; pearls were once found on Pearl and Hermes Reef, but the island was named for an English whaling ship; and the last Laysan red bird was literally blown out to sea in a windstorm from an island eaten alive by rabbits. In *Isles of Refuge*, old stories are confirmed, embellished with details long forgotten, and modern tales evolve from recent scientific studies of the lives of birds and seals and turtles. In a

single volume, legend, tale, and fact about seven islands northwest of the main Hawaiian Islands are given credence and meaning. The history and life of the oldest islands in the Hawaiian chain are described from volcano to seamount, from mountain to reef, from egg to albatross, from pup to seal, from beginning to end.

Author Mark J. Rauzon has brought together geology, volcanology, natural history, cultural history and legend in a highly readable volume that for the first time brings together the many facets of these islands in a single volume. Each chapter is introduced with an *'olelo no 'eau*, "He pu'u kolo I Nihoa," "Crawling up the cliffs of Nihoa." Each is written with clarity and charm, and enhanced by appropriate and often unique illustrations. Chapters end with a list of abbreviated references that are completed in the Bibliography of more than one hundred and fifty citations, the first comprehensive bibliography of these long-storied islands. An appendix of Hawaiian, common and scientific names and a detailed index complete the volume.

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The *Bulletin of the Pacific Circle*, formerly 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 Circle is a commission of the International Union of the History and Philosophy of Science. Its website is located at:

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The *Bulletin* is distributed twice a year with the assistance of the Department of History, University of Hawaii, Manoa. Membership in the Pacific Circle, which includes the *Bulletin*, is available at a cost of US\$20 per year for individuals and US\$30 for institutions. Additional contributions in any amount to support the costs of production and distribution will be gratefully accepted. Checks or money orders can be made payable to "Bulletin of the Pacific Circle" and sent to the Treasurer:

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