

THE PACIFIC CIRCLE



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PACIFIC CIRCLE NEWS

Members' News

Helen M. Rozwadowski and David van Keuren have recently co-edited *The Machine in Neptune's Garden: Historical Perspectives on Technology and the Marine Environment* (Science History Publications/USA, 2004), which includes Gregory T. Cushman's essay on "Choosing Between Centers of Action: Instrument Buoys, El Nino, and Scientific Internationalism in the Pacific, 1957-1982." Keith Benson wrote the volume's dedication in memory of Fritz Rehbock, our colleague and friend.

Congratulations to Ron Rainger, who has been awarded the William E. and Mary B. Ritter Fellowship at the Scripps Institution of Oceanography. Ron will be delivering three lectures to audiences at Scripps and the University of California—San Diego during the fall 2004 term.

Michael A. Osborne and Richard S. Fogarty published "Views from the Periphery: Discourses of Race and Place in French Military Medicine" in *History and Philosophy of the Life Sciences* 25 (2003), 363-389. Apologies for the late notice.

Recent Meetings

Janet Bell Garber and Keir Sterling were kind enough to write the following report from the Fifth British North-American History of Science Societies Conference, held at the University of King's College in Halifax, Nova Scotia:

The meeting was held during the first week in August 2004 and was attended by about 250 scholars, representing a range of institutions from the United Kingdom, Canada, the United States, Japan, Israel, Egypt and nine European nations. There were three plenary and fifty-seven parallel sessions over three days, involving 280 speakers and commentators. With so many parallel sessions, presenters faced a daunting challenge when it came to enticing listeners and attendees confronted a rich embarrassment of intellectual fare.

The Pacific Circle sponsored the session entitled "Two Centuries of Creating and Disseminating Science from the Pacific, 1769-1963," chaired by Mike Brodhead, historian with the U. S. Army Corps of Engineers in Washington, D.C. This session led off the first morning of the conference and directly addressed the theme of the conference.

Janet Bell Garber, an independent scholar from California, spoke about the new knowledge shared between Tasmania and England via the three published volumes of the official *Journal* of the vigorous, but short-lived Tasmanian Royal Society of Science between 1839 and 1849. The paper addressed the roles played in the Society's activities by Royal Governor John Franklin and Lady Franklin. Janet also noted that in addition to the exchange of printed reports, there was direct communication with English scientists (also Polish, German and French) who arrived in Hobart by ship, attended meetings of the Society, gave reports, and became corresponding members on their return home. Their participation both enlivened the meetings and strengthened ties with "home," as well as with the wider world of science—but not with the United States.

Larry Spencer, Professor Emeritus of History at Plymouth State University in New Hampshire, discussed the career of American-born scientist, J. Roger Bray, and his mid-20th-century contributions to the history of forest ecology in New Zealand within the context of work done in the field by previous and contemporary students of forest environments. Bray, who worked mostly outside of New Zealand academe, still lives in that country. The paper included a discussion of innovations in methods for studying forest ecology developed in Wisconsin during the 1950s. In a related note, the botanist-missionary Colenso, mentioned by Larry, was also a member of the Tasmanian Royal Society of Science. Keir Sterling, Historian for the U. S. Army Combined Arms Support Command, Ft. Lee, Virginia, described artist-naturalist Titian Peale's mammal and bird collecting during the United States Exploring Expedition of 1838-1842, his frustrated effort to publish descriptions of new species, and the ultimate suppression of his book. Debra Lindsay, Professor of History at the University of New Brunswick's St. John's campus, wrapped up the session with an excellent commentary.

Our capable and efficient conference organizers scheduled a two-hour tour of Halifax harbor (the second largest natural harbor in the world) aboard a three-masted ex-fishing boat on the first evening of the conference, and a reception and buffet on the second night, held at Pier 21, which from the 1920s until 1971 served as Canada's Ellis Island, through which upwards of one million immigrants entered the country. It is now an absorbing museum and exhibit area with several shops.

Those who could find the time also had a delightful 17 acre public garden (established in 1836) to stroll through, several museums they could visit,

including the Citadel (built 1826-1856), which occupies a commanding promontory in the center of the city, and the Maritime Museum, with exhibits commemorating the collision between a munitions ship and another vessel in December 1917, which devastated the north end of the city, killed some 2000 people, injured another 9,000, and resulted in the largest man-made explosion before the atom bombs of World War II. We could also browse through some half-dozen used bookstores. A varied and crowded farmer's market with intriguing foods and crafts was open in a former brewery on Saturday morning, and a wide range of excellent restaurants and pubs were available in the city. We are told that there are more pubs per capita in Halifax (population approximately 140,000) than in any other Canadian city. Some conferees sampled the local seafood, the many snack shops, curio outlets and varied forms of entertainment, including a fire eater, available in the evening along the waterfront harbor walk. Resident Haligonians were very hospitable and the visit to their city—founded in 1749—was well worth the effort.

Forthcoming Meetings

"Pacific History: Assessments and Prospects," the 16th Pacific History Association Conference, will be held in Noumea, New Caledonia, on December 5-10, 2004. Send inquiries to Frederic Angleviel, BP 4477, Noumea 98845. Email: angleviel@univ-nc.nc.

Michele Aldrich invites Pacific Circle members to attend the AAAS Pacific Division meeting at Southern Oregon University, Ashland, Oregon on June 12-16, 2005. Members are encouraged to submit proposals for the History of Science Section, among the other sections. History of Science papers can be sent to Donald J. McGraw, at granttree@yahoo.com. General information can be found on the Pacific Division website at <http://pacific.aaas.org>.

The Pacific Division is also considering another meeting in Hawai'i, perhaps during June 2007. The Big Island of Hawai'i is currently the most-favored location and the University of Hawai'i—Hilo campus as the host site. If interested in organizing, attending and participating, please contact Prof. Roger Christianson, Executive Director, AAAS Pacific Division, Southern Oregon University, 1250 Siskiyou Blvd., Ashland, OR 97520. Email: rchristi@sou.edu.

James R. Fleming writes to request that members consider participating in the Scientific Section on History of Meteorology at the upcoming XXIth

International Congress of History of Science, to be held July 24-30, 2005, in Beijing, China. The International Commission on History of Meteorology (ICHM) is sponsoring a section of contributed papers in light of the overall theme of the Congress: "Globalization and Diversity: Diffusion of Science and Technology Throughout History." For further information about participating on the ICHM panels, please contact Kristine Harper at kharper@proaxis.com. The deadline for abstracts is April 15, 2005.

The 11th International Conference on the History of Science in East Asia is scheduled for August 15-20, 2005, in Munich, Germany. Continuing the tradition of previous conferences, this meeting will offer a forum to present and discuss research and research findings, views and controversies related to the history of science, technology and medicine in East Asia. Among the general subjects of the conference will be: East-West comparisons, mutual influences between East and West in the fields of science, medicine and technology, and the historical legacies of ethical perspectives on science, technology and medicine in East Asia. For further information about the meeting, please contact the Secretariat for the Institute for the History of Medicine at sekretariat.igm@lrz.uni-muenchen.de.

The 5th East Asian STS Conference will be held at Seoul National University, Seoul, Korea, on December 8-11, 2004. The conference theme is "Science and Technology in Public Dispute." For information, please contact Prof. Sungook Hong, Program in History and Philosophy of Science, Seoul National University, 56-1 Silim-dong, Seoul 151-747, Seoul, Korea (Email: comenius@snu.ac.kr) or Prof. Sang Wook Yi, Philosophy Department, Hanyang University, 17 Haengdang-dong, Seoul 133-791, Korea (Email: dappled@hanyang.ac.kr).

IUHPS/DHS NEWS

Mike Osborne, Silvia Figueiroa, and Togo Tsukahara announce on behalf of the "Science & Empire Commission" of the Division of History of Sciences/IUHPS that the commission's website is up and running at <http://www.ige.unicamp.br/sciemp>.

HSS NEWS

The upcoming annual meeting of the History of Science Society is scheduled for November 20-23, 2004, in Cambridge, MA. Information

about sessions, housing and other matters is available at: http://www.hssonline.org/meeting/mf_annual.html.

Several sessions might be of particular interest to Pacific Circle members, including *Dimensions of the Naturalist Tradition in America; Across the Pacific: American-East Asian Scientific Interactions during the Cold War; Science between Nations; State of Nature: Presenting and Representing Animals in 20th-Century Japan and the United States; Heavenly and Earthly Bodies: Problems of "Pre-modernity" in Chinese and Ottoman Science; The Other Final Frontier: American Science and the Sea after World War II and Recent Work in the History of Biological Science in Japan*. Please consult the official program for panel times and locations.

Future annual HSS meetings are planned for November 3-6, 2005, in Minneapolis, MN (held jointly with SHOT) and November 2-5, 2006, in Vancouver, British Columbia (held jointly with the PSA).

PACIFIC WATCH

Garry J. Tee contributes the following to our discussion of *The Hawaiian National Bibliography*, the 4-volume series edited by Dr. David W. Forbes and published by the University of Hawaii Press. Brian Richardson has reviewed "Forbes" for the *Bulletin*, and Garry wanted to let readers know that there are several scientific interactions with the Hawaiian Islands not included in the four volumes:

Sir Frederick Aloysius Weld (1823-1891) was an English settler in New Zealand and Premier of the colony from 1864 to 1866. Weld learned in August 1854 of an eruption in Hawai'i, whereupon he and the Hon. James Stuart Wortley, a friend, chartered a sailing vessel to take them to Hawai'i, where they made an adventurous examination of Moana Loa volcano. Weld then went to Scotland, where he visited Sir Charles Lyell and wrote for him an account of that eruption (G. H. Scholefield, ed. *A Dictionary of New Zealand Biography*, Volume 2, Wellington: Department of Internal Affairs, 1940, 477-480). Weld's account was published as F. A. Weld, "On the Volcanic Eruption at Hawaii in 1855-1856," *Geological Society Journal*, 13 (1857), 163-169.

Glynn Barratt's *The Russian Discovery of Hawai'i* (Honolulu: Editions Limited, 1987), also cites several relevant Russian publications which are not included in Forbes' *Bibliography*.

Pacific Science: A Quarterly Devoted to the Biological and Physical Sciences of the Pacific Region 58:3 (July 2004) and 58:4 (October 2004) are now available. Please contact the University of Hawai'i Press for further information.

The 16th annual symposium on Maritime Archaeology and History of Hawai'i and the Pacific will be held February 19-21, 2005, at the Pacific Beach Hotel in Honolulu. The symposium is co-sponsored by the Marine Option Program at the University of Hawai'i and the Maritime Archaeology and History of the Hawaiian Islands (MAHHI) Foundation. The theme for this year's conference is "Pacific Connections Through the Ages," but paper and panel topics are not limited to it. Suggested topics include, but are not limited to: voyaging connections within the Pacific Rim; transpacific maritime commerce; naval engagements and interactions in the Pacific; and recent archaeological research of Pacific maritime cultures. Abstracts should be no more than 300 words. Please include a title and both name(s) and affiliation(s) of presenter(s). The deadline for abstracts is November 15, 2004. Email abstract and contact information to Donald Froning, Jr. at froning@mahhi.org. For information about the conference and sponsoring organizations, please visit the website at <http://www.mahhi.org/>.

For those studying the modern history of science in New Zealand, Ruth Barton has been kind enough to send along the following citations for recent articles of possible interest published in the *New Zealand Science Review*.

John Campbell, "Clinton Coleridge Farr, 1866-1943," 58:2 (2001), 71-74;

Ruth Barton, "'I have been most Fortunate:' Marion Robinson and Research in Human Nutrition in the School of Home Science at the University of Otago," 58:3 (2001), 115-119;

Ruth Barton, "A Mathematician in Management: The Public Service Career of Ian Dick," 59:3-4(2002), 88-103;

James Braund, "Otto Frankel—The Austrian who gave New Zealanders their Daily Bread," 59:1 (2002), 13-16;

Kirstie Ross, "The 'Two Lucys:' The Collaborative Work of Lucy Moore and Lucy Cranwell, 1928-1939," 58:4 (2001), 138-142;

Ross Galbreath, "Security, Loyalty and Secrecy in Post-War New Zealand Science: The Cases of G. M. Deynzer and J. J. S. Cornes," 59:2 (2002), 55-58.

CONFERENCE and SOCIETY REPORTS

Interested in historical and current forestry and forest science? Consider joining the Australian Forest History Society (AFHS). The Society recently held its 6th annual conference on the theme of "A Forest Conscienceness." Two major strands were explored in the series of six symposia: an awareness of the economic and aesthetic values of forests and the social and ethical responsibility of wise management. For further information about the conference and the Society itself, please contact the AFHS at P. O. Box 5128, Kingston, ACT 2604, Australia.

The European Society for the History of Science holds its first formal meeting on November 4-6, 2004, at the University of Maastricht. Recommended by the European Union over five years ago and formed last year, this society plans to promote contacts between scholars across Europe and generally advance the history of science in education. A web site, electronic newsletter and regular European congresses are also on the early agenda. For further information, please contact the secretary, Stephanie Dupouy, Departement de Philosophie, Ecole normale, superieure, 45 rue d'Ulm, 75005 Paris, France. Email: stephanie.dupouy@ens.fr.

FUTURE CONFERENCES, SEMINARS and CALLS FOR PAPERS

29-31 October 2004. "Intelligentsia: Russian and Soviet Science on the World Stage, 1860-1960," to be held at the University of Georgia, Athens, GA, USA.

4-6 November 2004. "Science in Europe—Europe in Science: 1500-2000," the first meeting of the European Society for the History of Science at Maastricht. The conference will explore European perspectives on the history and historiography of science and is jointly organized with GEWINA, the Dutch Society for the History of Science, Medicine, Mathematics and Technology. Papers are expected in three broad areas: "Science in Europe;" "Europe in Science;" and "The History of Science and the Self Consciousness of Europe." The language of the conference is English. Additional information is at www.gewina.nl.

4-6 November 2004. "Health and Medicine in the U.S. in the Era of Lewis and Clark," to be held at The Wood Institute for the History of Medicine at the College of Physicians of Philadelphia, Philadelphia, PA, USA.

18-21 November 2004. "'Curious in Our Way:' The Culture of Nature in Philadelphia, 1740-1840," a symposium exploring the visual culture of American natural history, to be held at the Philadelphia Museum of Art. Thirteen eminent historians of art, science and material culture focus on the scientific community of Philadelphia from the colonial period through the first decades of the republic. They will address the interrelationships between the visual arts and the study of natural history. The material productions of over thirty naturalists will be considered and scheduled events include visits to the exhibitions at the Academy of Natural Sciences and the American Philosophical Society. Formal sessions will be held at the Museum of Art. For information: <http://www.philamuseum.org/education/symposia.shtml>.

5-10 December 2004. "Pacific History: Assessments and Prospects," the 16th Pacific History Association Conference, to be held in Noumea, New Caledonia. Please send inquiries to Frederic Angleviel, BP 4477, Noumea 98845, New Caledonia. Email: angleviel@univ-nc.nc.

1-5 February 2005. Annual Meeting of the Association for Social Anthropology in Oceania, to be held at the Radisson Kauai Beach Resort on Kauai, Hawai'i. Information about the meeting and proposed sessions can be found at <http://www.soc.hawaii.edu/asao/pacific/hawaiki.html>.

3-5 June 2005. Annual Conference of the Canadian Society for the History of Medicine, to be held at the University of Western Ontario. The conference theme will be "Paradoxes of Citizenship: Environments, Exclusions, Equity," Abstracts on other topics are also welcome. Abstracts should be no more than 350 words and should be accompanied by a one-page resume. Materials can be sent by email or post. If the latter, be sure to include one original and three copies, typed single-spaced on one sheet of paper. Please submit no later than November 12, 2004, to: Prof. Shelley McKellar, CSHM Program Chair, Department of History, SSC 4424, University of Western Ontario, London, Ontario, Canada N6A 5C2. Email: smckell@uwo.ca.

3-9 July 2005. 20th International Congress for the Historical Sciences, to be held at the University of New South Wales, Sydney, Australia. For information, visit the conference web site: <http://www.cishsydney2005.org>.

14-16 July 2005. "British World Conference, IV: Broadening the British World," to be held at the University of Auckland, continues the cycle of

conferences held in Capetown (2002), Calgary (2003) and Melbourne (2004). The conference cycle seeks to enhance, broaden, and re-appraise historical discussion of the effects and implications of the British Diaspora of the 17th through 20th centuries. The Auckland conference themes include "science, technology, and technology-transfer in the British World." Proposals for papers and a brief c.v. can be sent to Dr. Jennifer Frost, Department of History, University of Auckland, Private Bag 92019, Auckland, New Zealand, or by email at j.frost@auckland.ac.nz no later than November 1, 2004.

7-10 September 2005. History of Medicine Conference, to be held at Ministère de la Recherche, Paris. A joint venture of the European Association for the History of Medicine and Health and the Society for the Social History of Medicine. Sessions fostering cross-national themes and perspectives are encouraged. The deadline for proposals is November 15, 2004. Please address all inquiries to: Prof. Patrice Bourdelais at Patrice.Bourdelais@echess.fr.

EXHIBITIONS and MUSEUMS

The Forestry Heritage Museum has been established in Beechworth, Victoria, Australia to portray forest management activities of the former Forests Commission of Victoria. It is operated by the Forests Commission Retired Personnel Association and the Department of Sustainability and Environment, with the assistance of the Shire of Indigo. The museum incorporates displays of materials and equipment and aims to give visitors insight into how the state's forests and timber resources were managed in the past. Currently, the exhibits focus on aspects of forest science research, fire-fighting methods and equipment, and fire protection operations. The museum is open seven days a week from 9 am until 5 pm.

The American Philosophical Society in Philadelphia continues to host "Stuffing Birds, Pressing Prints, Shaping Knowledge: Natural History in North America, 1730-1860" through the end of 2004. This free exhibition invites visitors to explore the practice of natural history in North America and how the early Euro-American understanding of nature transformed the continent and society. There are over 250 images and artifacts on display, including many in the Society's collections viewed in public for the first time. Included are specimens of plants and animals, as well as the bones of a huge mastodon. For news and announcements, please send an email to: bgregory@amphilsoc.org.

EMPLOYMENT, GRANTS and PRIZES

The Society for the History of Natural History reminds young scholars attending its meetings that funding is available from the Alwyne Wheeler Bursary Travel Award. Monies can be used for both travel to the meeting and conference registration. Preference is given to applicants delivering a paper or other presentation at the annual spring meeting of the Society. Bursary recipients will be invited to submit a paper to *Archives of Natural History*, the Society's official journal. For further information and application materials, please contact the SHNH Secretary, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, United Kingdom. Email: secretary@shnh.org.

The University of Oklahoma announces the Andrew W. Mellon Travel Fellowship Program for visiting Ph.D. students and postdoctoral scholars to make use of the History of Science Collections. Please contact: The Andrew W. Mellon Travel Fellowship Program, Bizzell Library, 401 West Brooks, Room 521, University of Oklahoma, Norman, OK 73019-0528. Email: kmagruder@ou.edu or mogilvie@ou.edu.

The Australian National University is pleased to announce the Curly Humphreys Honours Scholarship in Operational Forestry to assist a student to carry out research on implementation of forest management in the field, including the development and application of technology, and the management of labor and operational procedures, particularly in harvesting and log transportation, along with fire science and management, the collection and preservation of log and forest inventory data, and forest planning.

The Forum for the History of Science in America seeks nominations for the best article, published in English in 2002, 2003, or 2004 by a scholar who has received a Ph.D. within the last ten years (1995 or later). The subject area is the history of North American Science, which includes Canada, Mexico, the Caribbean, and the United States. Authors may nominate themselves. Nominations are due no later than May 15, 2005, and should be sent to: Daniel Goldstein, Shields Library, Humanities and Social Sciences Department, 100 NW Quad, University of California–Davis, Davis, CA 95616-5292. Email: dgoldstein@ucdavis.edu.

RESEARCH, ARCHIVES AND COLLECTIONS: PRINT & ELECTRONIC

The Bibliotheque nationale de France has created a new web-based list of sources, museums and publications concerning the history of science, technology, and medicine. The coverage is mainly French and European, but extends to North and Latin America, as well. The web site is: <http://www.bnf.fr/pages/liens/d3/histsciences-d3.html/#Histoireinstit>.

The first phase of the National Library of Australia's "South Seas" is now up and running. This is an online information resource for the history of European voyaging and cross-cultural encounters in the Pacific between 1760 and 1800. The first phase focuses on Captain James Cook's momentous first voyage of 1768-1771. It offers a full text of the holograph manuscript of Cook's *Endeavour Journal* held by the National Library, together with the full texts of the journals kept by Joseph Banks and Sydney Parkinson on the voyage, among other historical volumes. The documents are presented in a way which allows for easy comparisons. There are also explanatory commentaries, maps, and short articles. Additionally, the first phase of "South Seas" includes online editions of literary works revealing how the experiences of voyagers captured the European imagination and several works illustrative of indigenous Pacific cultures before and during the period. Phase two will get underway in early 2005 and will involve the use of audio-visual media to illuminate the historical legacies of Pacific voyaging and cross-cultural encounters. "South Seas" can be accessed at: <http://southseas.nla.gov.au>.

BOOK REVIEWS

Michael Chauvin. *Hökūloa: The British 1874 Transit of Venus Expedition to Hawai'i*. Honolulu: Bishop Museum Press, 2004. Pp. 262. Cloth: US\$ 26.95. ISBN 1581780230.

Great Britain's dominant position in the 19th-century maritime world afforded opportunities for far-seeing imperial strategists to extend their influence through scientific expeditions. The widely-acclaimed voyages of Cook and Vancouver in the 18th century and *H.M.S. Beagle, Erebus, Terror and Challenger* in the 19th century attest to sustained British interest in natural history as an implement of world power. The willingness of the Admiralty to appropriate formidable resources to such researches was

exemplified by the Venus Transit Expedition of 1874. Russia, Germany, France and the United States all launched competing operations, but none rivaled in extent or extravagance the British effort.

When George Airy, Astronomer Royal, was authorized to organize five separate teams to observe the 1874 Venus transit of the Sun, he knew that the Empire's primacy in navigational astronomy was on the line. Airy had begun promoting the enterprise in 1857, and when support materialized in 1869, a covey of talented scientists, civilians, and military flocked to the Greenwich Observatory to train for coveted assignments on the observer teams. A tough, three-month regimen under Airy's rigorous eye discouraged numerous applicants; the selection process spanned four years. Teams were dispatched to Egypt, Kerguelen, Rodriguez, New Zealand and Hawai'i.

In *Hōkūloa: The British 1874 Transit of Venus Expedition to Hawai'i*, Michael Chauvin spotlights the Hawaiian team. He tracks each individual from his educational roots through the preparations, training, reactions to the tropical and cultural environment, the ultimate performance and aftermath. Personalities, revealed through archival correspondence between the principals, emerge in a topical, 34-chapter narrative that builds dramatically toward the event itself.

A few duty-driven individuals are central. They are the heroes, and there are near-villains on the teams. The Draconian presence of Airy, half an Earth-rotation away from Greenwich, is embodied in the mandated journals that are to become government property, documenting their slavish performance of prescribed routines, tedious practice in the oppressive heat on Airy's ingenious transit model, and endless forms to complete. Remoteness of the site did not seem to attenuate Airy's control.

Aside from their technical qualifications, the team leaders encountered difficulties demanding resourcefulness, resolution, endurance and tact. Coddling the monarchy, they selected and negotiated for observation sites on three of the islands, made connections with the Surveyor-General of the Hawaiian Government Survey, and located the sites in relation to prominent landmarks. They mounted their instruments and celestially measured and re-measured the latitude and longitude. They practiced, recorded, and practiced and practiced, stressed by the heat and ever-curious locals.

Despite Airy's scrupulous attention to detail and meticulous on-site drills, two of his most able observers missed the primary datum, the instant of

internal contact of Venus with the Sun's limb. They were distracted by superfluous, last minute deflection recordings.

In the quest for data of sufficient quality to refine the measured astronomical unit, their chief mission, the British transit expeditions were not a notable success. However, Michael Chauvin has found a trove of 19th-century scientific practice here. Although the observers' journals were written to project their scientific personae, the correspondence was more subjective, and even the journals contained mutual criticism.

Chauvin has pieced together insider's views of one of the most elaborate and expensive scientific expeditions in the 19th century. His keen perceptions of the physical and cultural scene in Hawai'i are evident in the sections describing the on-site work. However, his prose style is often reminiscent of Victorian Londonese. The text is lucid and readable, occasionally overreaching for metaphor.

This is, in most respects, a reader-friendly book. Excellent appendices instructively respond to technical questions that would otherwise challenge nonspecialists. A section titled "Stories Behind the Figures" goes beyond captions to enrich the illustrations. An introductory "Chronology of Events" ties the expedition into the histories of astronomy, Hawai'i and the British Empire. Considerable thought and effort have been extended to give the reader context. Unfortunately, there is no index, a shortcoming that could be remedied in a later edition. Chapter 35, which details George Forbes' journey home across Siberia, seems tangential to the story, albeit an engaging narrative, a tasty cordial.

In sum, this is an excellent addition to the Bishop Museum Press book list

Gordon E. Bigelow

University of Hawai'i, Manoa (Retired)

Miriam Estensen. *The Life of Matthew Flinders*. Sydney, New South Wales: Allen and Unwin, 2002 (cloth) and 2003 (paper). Pp. 538. Endnotes, bibliography, index, illustrations. Cloth US\$ 34.95 and Paper: US\$22.95. ISBN 1-74114-152-4.

Miriam Estensen's *The Life of Matthew Flinders* can be divided into two parts. The first part mainly focuses on Flinders' explorations of *Terra Australis*. Strongly influenced by Daniel Defoe's *Robinson Crusoe*, Flinders kept a spirit

of adventurer throughout his whole life. His "furor of discovery" combined with his cartographical skills and interests in science led him to embark on various expeditions, successively as midshipman, aide-de-camp, lieutenant and commander. When he reached the Australian continent in 1795, Matthew Flinders did a tremendous job in recording uncharted shorelines. On the *Tom Thumb* (1795-1796), he set out to explore the uncharted coasts of New South Wales. On the *Norfolk* (1798-1799), he circum-navigated Van Diemen's Land (Tasmania) and proved it to be an island completely separated from the main land by a strait that he named Bass Strait. This discovery implied a "shorter and safer passage from the Pacific Ocean to the Indian Ocean" (p. 73).

The aim of the expedition of 1799 was to find rivers "as navigable access way for inland exploration" (p. 96). Flinders did not find any river and concluded wrongly that "no river of importance intersected the East Coast" (p. 107). Estensen is right to underline that explorers of the time were looking for obvious estuaries whereas rivers could only be seen from the land side. However, Flinders brought back precious pieces of information with even more precise charts.

Flinders' main expedition of 1801-1803 backed scientific, commercial and economic purposes. On the *Investigator*, he circumnavigated for the first time the Australian continent as one land. He also examined the Torres Strait and the Gulf of Carpentaria providing refinement and correction in the charting of previous explorers. He also sailed through coral build-up that he named "The Great Barrier Reef." All his adventures were perilous, the conditions of life onboard often threatened the life of the crew.

In the second part of the book, Estensen gives considerable insight into Flinders' personality, stressing his courage and patience. On his way back to England, Flinders had to stop at the Isle of France (Mauritius) due to the bad condition of his ship. With France and England at war, the French commander, General Decaen, considered Flinders a spy. Flinders remained more than six years in detention on the Isle, nine years as a whole away from home. Released in 1810, Flinders got down to writing and publishing the account of his voyage, *Voyage to Terra Australis*, inserting the numerous charts that he had managed to complete. Studying further the magnetic compass, he invented what was to be called the "Flinders bar," which reduces the probability of error in navigation.

In her introduction, Estensen considered that Flinders' "did not always received his due in history books" (p. ix). Her book has successfully managed to put the record straight. Her biography draws on a large range of sources and is rich in endnotes, illustrations and bibliography. She also traveled a lot for the book, sojourning in England and on the Isle of France to immerse herself in the atmosphere of those places.

This Flinders' biography is enriched with historical, political, economic and cultural comments situating the subject's life within the thinking and great events of the time. The well-deserved admiration of Miriam Estensen for Matthew Flinders—the man, the adventurer and the explorer—is perceivable throughout the book. The extensive and precise research carried out by the author, combined with a vivid description of events, makes this book an enjoyable read as well as a most valuable tool for researchers.

Fanny Duthil
University of Le Havre

Clifford Phillips. *The Lady Named Thunder: A Biography of Dr. Ethel Margaret Phillips (1876-1951)*. Edmonton: University of Alberta Press, 2003. Pp. 436. Illus., index. Paper: US\$34.95 and Euros 19.50. ISBN 0-88864-417-5.

Dr. Ethel Margaret Phillips was a woman of extraordinary talent and determination, even in an era that produced its fair share of remarkable people. Her life and career are worthy of commemoration for many reasons. An advocate of women's suffrage and a university-trained medical doctor, when few women entered the medical profession at that exalted level, she devoted her life to the physical welfare of the people of China. At a time when other European women in China were dutiful wives of diplomats, merchants, or missionaries, Dr. Phillips was a single and fiercely independent woman, who worked on her own terms. Successively employed by the British Society for the Propagating the Gospel and the Canadian Church Inland Mission, for whom she oversaw the construction and operation of two hospitals, first at Pingyin, and then at Kaifeng, she eventually settled in Peking (Beijing), where she established a private medical practice, ran a clinic, a tubercular ward, and guest houses, as well as teaching classes in medicine. In addition to lecturing in Chinese, she translated and published Chinese-language editions of several medical books in the fields of pharmacology, obstetrics, and gynecology.

Alerted that grants were available for those willing to serve as medical missionaries, she applied to the Societ[ies] for Promoting Christian Knowledge and for Propagating the Gospel and was granted £75 a year to pursue her medical studies. She gained distinction through her high marks and skill in making accurate diagnoses and in 1905 she became only the third woman to graduate in medicine at Manchester, when she was notified by the SPG that the Society was sending her, not to India—as she had always expected—but to China! This news was somewhat unsettling, since horror stories of the violence done during the recent Boxer Uprising to westerners in general, and missionaries in particular, were still very fresh in people's minds. Although officially designated as a "missionary," her mandate was not to preach or proselytize, but to heal the sick, comfort the afflicted, and bolster the image of Christianity through her own actions and personal example. This role came easily to the devoutly-Christian physician.

Setting out to practice western-style medicine in rural China a century ago, Dr. Phillips faced many daunting challenges. Although foreigners were often a source of curiosity and amusement to the Chinese, they were also objects of suspicion and resentment, feelings intensified by sixty years of diplomatic and military humiliations that China had suffered at the hands of foreign nations. Persuading local villagers to come for treatment, let alone to submit to an entire course treatment, after they began to show signs of improvement, was endlessly frustrating. Traditional Chinese medicine was still preferred by the majority of Chinese, including many who—just to be doubly safe—also sought the care and treatment offered by Dr. Phillips and her colleagues. Dr. Phillips' earliest successes were in the treatment of children, perhaps because they had not fully developed a prejudice against "foreign devils." Gradually, however, word of her medical skill spread among the local communities.

After treating thousands of patients and making tedious journeys by Chinese wheelbarrow to visit patients in distant villages, she decided to raise funds to build a hospital; St. Agatha's, the first SPG hospital built in Shandong province, was begun in 1909 and completed the following year. Dr. Phillips drew up the floor plans herself and monitored the construction site daily. On at least one occasion, she pushed over a newly erected wall, when she saw how badly it had been built. At the banquet celebrating the completion of the hospital, Dr. Phillips asked the long-suffering contractor, whom she had tormented for six months with her perfectionism, to give her a suitable Chinese name. Recalling their stormy relationship, he dubbed her Lei ("Thunder") and—to acknowledge

her fair complexion—Baiju ("white chrysanthemum"). Thus, Dr. Phillips became known to the Chinese as "The Lady Named Thunder."

After refusing numerous offers of employment at mission hospitals elsewhere in China, in 1916 Dr. Phillips accepted a half-time teaching appointment at the new Union Medical College for Women, and the opportunity to move to Beijing. Eventually, however, the onslaught of the Japanese army rendered her life in China uncertain. With the fall of Beijing to the Japanese, Dr. Phillips's position became precarious. In 1942 she was interned as an "enemy alien" in a detention camp at Weixian, where she remained until the camp was liberated in August, 1945. Although she survived the privations of imprisonment, the malnutrition had taken its toll in undermining her health, and Dr. Phillips spent the final years of her life in her native England, where she died in 1951.

Dr. Phillips's long service in China was part of an enterprise that sprang from the evangelical religious revival of the late 18th century, which generated a campaign for the abolition of slavery and—less successfully—the conversion to Christianity of so-called "heathen races." Although Jesuit missionaries had been active in China for centuries, Protestant missionaries only arrived in the 19th century—the China Inland Mission was founded as late as 1865—but rapidly made up for lost time. Today, this missionary proselytizing is seen by many as a form of religious and cultural "imperialism." But what is too often overlooked is that these missionaries were often maverick liberals within their own churches, and those who worked in advanced civilizations, such as China, were often profoundly affected by their experience, and developed great affection as well as admiration for the genius and ingenuity of Chinese culture. Many became experts in the fields of Chinese history and ethnography, language and literature, art and archaeology.

The Maoist regime in China immortalized the memory of Dr. Norman Bethune for his devotion, sacrifice, and properly leftist ideology, which was free of any religious context. Dr. Phillips worked just as devotedly with the Chinese people, as they struggled through decades of revolution, famine, and war. Her life's work and her own account of those years, recorded in her diaries and letters, and captured in this excellent biography, form a valuable record of a tumultuous half-century in the recent history of China.

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Barbara R. Stein, *On Her Own Terms: Annie Montague Alexander and the Rise of Science in the American West*. Berkeley: University of California Press, 2001. Pp. xvii + 380; 32 pp. of plates, illus.; maps.; index. Cloth: US\$ 35.00 and ISBN 0520227263.

Support of science by wealthy philanthropists has been and still is a very important aspect in the financing of science, although less so today than in the early 20th century. Although most of the philanthropists have been males, there has been a small group of females who have performed those duties. The state of California has been lucky in that two women, Elaine Browning Scripps and Annie Montague Alexander, were active contributors to and supporters of two institutions that have now gained world renown status, Scripps Institution of Oceanography (associated with the University of California–San Diego) and the Museum of Vertebrate Zoology (associated with the University of California–Berkeley). Without the support of those two women, the two institutions might have wilted on the vine, but their continuing financial support and advocacy during the early years kept the institutions alive and facilitated their transition to more fully state-supported institutions. This review examines Barbara R. Stein's biography of Annie Montague Alexander.

Alexander was born in 1864 in Hawai'i. Her father, Samuel, was the son of the Rev. William Alexander, one of the missionaries sent from New England in 1833 by the American Board of Commissioners of Foreign Missionaries to the then Sandwich Islands. Samuel grew up in Maine, but traveled widely for experience and school. When he finally settled permanently in Hawai'i, he formed a partnership with Henry Baldwin (another son of missionaries sent out by the ABCFM). Samuel and Henry were astute businessmen and founded not only the California and Hawaii Sugar Company, but also Alexander and Baldwin Limited, a holding company that included the sugar company and was also the agent for the Matson Lines, which at that time held the monopoly on shipping services to the Sandwich Isles. Alexander and Baldwin did well. They completed the Hamkua ditch that brought water from the windward side of the island to the drier one to irrigate their cane fields; they built the Kahului Railroad to carry their crops to the port for transport to the U. S. mainland; and they bought a refinery at Crocker where the materials were converted into products for commercial sale. They competed with, and in many ways triumphed over, Claus Spreckels, the sugar magnate. For health reasons, Samuel moved his family to Oakland

in the 1880s. Annie missed Hawai'i, but this move brought her into contact with the University of California, where she began taking college-level courses, including some in paleontology. This was the start of a life-long relationship with that educational institution.

Annie was close to her father in both temperament and abilities. She showed the same astuteness in her business endeavors. This included the management of her stock portfolio, from which the proceeds were used to fund her philanthropic endeavors and the establishment of her farm on Grizzly Island, which grew high quality asparagus. Like her father, she loved to travel. In fact, during a 1904 trip to Africa with her father, he died, leaving her to undertake a multitude of duties related to his burial and her return to the United States, duties which she accomplished quite well as a single woman. She traveled throughout the U.S. and Mexico, Europe, the South Pacific, and Africa. She pretty much made annual trips to Hawai'i, early on to Maui where she grew up, but later on to Kailua on the windward side of Oahu. Although some of the trips were just for sightseeing, most were for collecting purposes.

Annie not only helped to establish the Museum of Vertebrate Zoology, but also the University of California Museum of Paleontology. The two institutions have slightly different histories, as the MVZ has always been an independent component of the University, whereas the UCMP has had close ties to the geological science departments. As a result, Annie's activities with the MVZ were directly with the first head, Joseph Grinnell and the University of Presidents, whereas with respect to the UCMP, there was another layer of control, the chairs of the paleontology department and the faculty of the geology group. As a result, Annie gave far more money to the first than to the latter institution and exerted much more influence in the development of the MVZ.

One could say that Annie's relationships were never simple. She never married, but did have a close relationship with Louise Kellogg. The two women shared a house in Oakland, worked the farm in the delta, and traveled extensively with each other. Although the pair invited many dinner guests to their Oakland house, the true nature of their relationship was very private. Annie also had a complex relationship with Joseph Grinnell, the first director of the MVZ. Although he may have had all the formal degrees, he treated her as an intellectual equal and valued her opinions on all matters pertaining to

the functioning of the MVZ, not just financial, but also scientific ones. Stein fully documents these relationships with letters and materials in diaries.

Annie's contributions to science were not simply in her financial support of it, but also through her active participation in it. She was an excellent collector and her almost annual field trips provided hundreds of specimens to both the MVP and UCMP. Many of those collections were related to specific questions being proposed by the faculty and graduate students at Berkeley: the osteology and morphology of bears in Alaska and the distribution of small gophers in the American west, just to mention two. Grinnell and others not only used the materials to answer those specific questions, but also some general questions in ecology. What is interesting is that although Annie was an outstanding collector, she seemed to be reticent about carrying out the next steps in the scientific process; that is, the writing of scientific papers on the collected specimens. Although Stein indicates that she could have done this work, Annie left those aspects to her colleagues at the museum. Later in their lives, Annie and Louise collected plants rather than animals and fossils. All collections made by the two women are extremely valuable today as they represent materials from a period when California and the West were transitioning from relatively unsettled areas to highly developed ones. Many of the places they collected are now in housing developments, malls, farms, ranches or other attributes of the overly-developed state that California and other locales in the West have become.

Stein has done an outstanding job in providing the reader with the details of Annie's life. Through her association with the museum, Stein has had access to the archives to ferret out all the materials needed to fill in the details of a person's life. It helps too that Annie was an excellent correspondent and left a written record of her life through letters and diaries. Unfortunately, at times this record is somewhat generic and leaves out the real details such as those of the relationship between Louise and Annie and Annie's own thoughts on science and its progress. The biography is chronologically arranged, and as a child of the West, I felt like I was on a virtual fieldtrip as Annie and Louise collected and traveled to locations in California, Nevada and Hawai'i that I have visited myself. Although Stein subtitled her book "*...and the Rise of Science in the American West*," I was somewhat disappointed in this aspect. Other than the details as related to the growth of the MVZ and UCMP, there are few details that related the growth and development of those institutions to the growth of the University of California System, the growth and

development of the California Academy of Sciences, or the relationships of the institutions to other major institutions in the United States, such as other university museums, the National Museum in Washington, D.C., the Field Museum or the American Museum of Natural History. An overview chapter or integration of this material, where appropriate, would have been helpful. The volume has some great black and white photos that not only illustrate Annie and Louise, but also the places they visited and the modes of transportation they used to get there. The author includes an appendix of taxa named in honor of Annie and Louise and also taxa collected at their farm. The volume is completely documented and well indexed.

Persons interested in women in science, the development of mammalogy in the U.S., or the relationships between universities and their museums would do well to read this volume. Those interested in the *Scripps Institution—mentioned above—can read Scripps Institution of Oceanography: The First Fifty Years* (Ward Ritchie Press, 1967) by Helen Raiit and Beatrice Moulton and *Scripps Institution of Oceanography: Probing the Oceans, 1936 to 1976* (Tofua Press, 1978) by Elizabeth Noble Shor. The early chapters of the first book indicate the role that the Scrippses, brother and sister, played in the establishment of that institution. For a general treatment of the early development of natural history in California, please read *Pacific Visions: California Scientists and the Environment, 1850-1915* (Yale University Press, 1988) by Michael L. Smith. *Women in the Field: America's Pioneering Women Naturalists* (Texas A and M University Press, 1991) edited by Marcia M. Bonta provides 25 short biographies, including one of Annie Alexander. Space prevents me from listing other relevant books, but there are many more on the contributions of women to the biological sciences.

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William Langewiesche, *The Outlaw Sea: A World of Freedom, Chaos, and Crime*. New York: North Point Press, 2004. Pp. 239. Cloth: US\$ 23.00 and ISBN 0865475814.

William Langewiesche's *The Outlaw Sea* presents an exciting picture of modern shipping set amidst an unregulated and perhaps unregulatable ocean. He begins with a striking assertion: not only has progress in modern ocean shipping been slowed, but it may actually be moving in reverse, and the

world's oceans are now becoming even more wild and chaotic. Safety at sea is decreasing; maritime crime and piracy are proving profitable. Entropy increases despite our best efforts at civilization. This description of contemporary shipping is shocking, as is the fact that we know so little about the shipping upon which are economies depend.

Langewiesche presents a snapshot of a distant maritime reality which we usually choose to ignore. It is a picture, in fact, kept deliberately hidden by market forces. Containerized behemoths meet cheap labor sources in a poorly-regulated international setting, resulting in low shipping rates. It also results in decrepit ships which easily pass ineffectual inspections, frightened crews without recourse to address serious hazards, and crime. The crime typically steals the show. Langewiesche produces his own categorization of contemporary piracy ranging from the world's poor grasping at the most readily available material on board the passing "parade of giants," to the sophisticated efforts of maritime gangs hijacking whole cargos or ships, with or without their crews. Even though no authority has yet truly penetrated that world, Langewiesche's description is immediate and powerful. It is a good snapshot, it is expose journalism, with a flair for terse language that might make Hemingway proud.

Case studies of the freighter *Alondra Rainbow*, the tanker *Kristal*, and the ferry *Estonia* show this chaos in action and substantiate the author's claims of the wildness of the sea. They also help with conveying the complexities of Admiralty law to the general reader. There is inevitably something romantic in sea stories, and hence a tendency for the individual studies to grow beyond their means and become tales unto themselves. This occurs with the detailed examination of the disastrous sinking of the passenger ferry *Estonia* in 1994, the centerpiece of the book. It is a good example of how ill-suited our regulations and inspections are compared to the power of the ocean, squeezed into 100 of the 239 pages of the text. Towards the end, Langewiesche features a new element, one suited to properly communicating the sheer size of modern vessels. The industrial footprint of the shipping business includes the miles of toxic-laden beaches in South Asia, where vessels are run ashore at the end of their lives, to be broken apart by hand and scrapped. This working environmental hell is a direct consequence of a containerized global lifestyle.

Outlaw Sea benefits from the shock value of portraying marine hazards as if they were newly discovered threats. Yes, the scope of the current situation is surprising, but none of it may be particularly new. Large ships have been

literally hijacked for years; it is a multi-billion dollar industry. Langewiesche portrays vessels as mobile multi-cultural working prisons, but they often fulfilled this function in the past. Ships were forced to find sailors where they could, and unfortunately it was often the nature of the job to be confined under uncomfortable and some-times desperate conditions. The author does an exceptional job with the fact that ships seem independent of nationality, or almost schizophrenic in their ability to change identity on their international routes. But ships were around before nations and re-flagging is nothing new. American ship owners sought British registry by the hundreds when threatened by a few Confederate raiders during the Civil War. And finally the obvious threats from nature herself. Waves and storms sink ships: when have they not? Did we expect that they would not? The idea of building the unsinkable ship ended in 1912.

The larger question raised by Langewiesche's book is: what would make the reader expect that the sea would be anything other than a world of freedom, chaos, and crime? Our social constructs within and between nations have never applied very well to the oceans. Our national borders extend to sea only with great difficulty and enforcement of those boundaries is a more perplexing issue. The United States was once a colony of smugglers, proud of its local pirates. So when did Americans forget this? Who sold them on the idea that the ocean was supposed to be an organized and orderly realm?

That question is beyond *Outlaw Sea*. It is clearly not William Langewiesche's intention to address how this freedom, chaos, and crime came to be. For the reader, the question looms large, having been exposed to contemporary images. This is particularly the case for the American reader, who, after all, lives in a former maritime colony and currently possesses the world's most powerful navy. Perhaps Americans should be asking these kinds of questions. *Outlaw Sea* opens the door to this topic. It is effective and powerful journalism in a maritime setting. And we depend daily on these chips and have tacitly accepted the harsh social and economic realities involved. *Outlaw Sea* is not, however, a maritime history. For readers left wondering how we got where we are, they must make for a different harbor.

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