

THE PACIFIC CIRCLE



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PACIFIC CIRCLE NEWS

MEMBERS' NEWS and ANNOUNCEMENTS

James R. Fleming reminds Circle members about the symposium on “Visual Languages (and Representation) of the Sky: Frameworks and Focal Points in Social Context,” to be held at the upcoming International Congress of the History of Science and Technology in Budapest, Hungary. For additional information, please contact the conveners: Cornelia Luedecke (C.Luedecke@lrz.uni-muenchen.de) and James R. Fleming (jfleming@colby.edu).

Richard Gillespie announces the publication of *Seize the Day: Exhibitions, Australia and the World*, a collection of essays co-edited by Richard, Kate Darian-Smith, Caroline Jordan and Elizabeth Wills. This multi-disciplinary collection presents new research on a variety of topics and exhibitions from the mid-nineteenth century through the late-twentieth. Several chapters consider the history of science. The volume is published by Monash University ePress and is currently available.

Hans van Tilburg writes that “On January 21, 2009, Skipper Liu Ning-sheng and crew gave a presentation at the University of Hawai‘i at Manoa titled ‘Reviving Seafaring Glory: The Grand Voyage of the Princess Taiping.’ The replica Ming Dynasty (1368-1644 C.E.) wooden sailing junk, Princess Taiping, arrived at Honolulu on December 21, 2008. The junk is currently on her return voyage to China, following her initial passage across the Pacific to the west coast. The one-of-a-kind 54-foot vessel, launched in October, 2007, previously received wide public attention during its exhibition at the San Francisco National Maritime Museum and the San Diego Maritime Museum. Ning-sheng and his crew have been meeting with other educational and heritage organizations, conducting public presentations, and welcoming visitors on board their unique craft. The voyage recalls the technical achievements of Chinese seafaring history, and the rich heritage of the Ming Dynasty, a period when the celebrated Admiral Zheng completed his famous voyages into the Indian Ocean. The project is supported by the Chinese Maritime Development Society in Taiwan, and gathers crew members from Hong Kong, Taiwan and the United States. The project web site can be found at www.chinesevoyage.com.”



HSS NEWS

Upcoming HSS meetings are on the calendar for November 19-22, 2009, in Phoenix, Arizona, and November 4-7, 2010, in Montreal, Canada, a joint meeting with the Philosophy of Science Association.

An Introduction to the History of Science in Non-Western Societies is currently available at the Society's web site: <http://www.hssonline.org>. The collection includes "China," by William C. Summers, "India," by Bill Johnson, "Latin America," by Marcos Cueto and Jorge Canizares Esquerro, and "Australia and the Pacific," by David Turnbull and Philip F. Rehbock. Please scroll to the bottom of the page, where you can click and download the document in PDF and html formats.

The History of Science Society *Newsletter* for October 2008 includes two essays of possible interest to Circle members: Margaret J. Osler's "History and Philosophy of Science among the Kiwis" (pp. 12-13) and Ruth Barton's "History of Science Down Under" (pp. 14-17). Copies are included in this mailing.

RECENT CONFERENCE REPORTS

The International Society for the History of East Asian Science, Technology, and Medicine (ISHEASTM) held its Twelfth International Conference at Johns Hopkins University, Baltimore, Maryland, during July 14-18, 2008. The central theme of the meeting was a "Tribute to a Generation." Among the "High Ancestors" so honored were Joseph Needham, Yabuuti Kiyosi, Zhu Kezhen, Li Yan, and Qian Bacong. In addition, the meeting provided a forum for the latest scholarship in the history of science, technology, and medicine in East Asia, and honored the field's "Second Generation," among whom are Li Di, Pan Jixing, and Xi Zezong in the People's Republic of China; Nakayama Shigeru, Yamada Keiji, and Miyasita Saburo in Japan; Jeon Sang-Woon in Korea; Ho Peng-Yoke in Malaysia; and Nathan Sivin and Charlotte Furth in the United States. Those scholars were recognized for individually and collectively laying the foundations in scholarship, publications, infrastructure, institutional commitment, and training during the second half of the twentieth century for the global ISHEASTM community.

Conference participants included over 40 graduate students and nearly 200 senior and junior scholars in the fields. Panels and sessions covered new research in the history of mathematics, astronomy, technology, geology, medicine, public health, and the life sciences in East Asia. Eighteen different countries were represented by the participants.

The meeting also included two public lectures: Simon Winchester talked about

his new book on Needham, *The Man Who Loved China*, and Timothy Brook discussed his new publication, *Vermeer's Hat*. Various other plenary sessions and public addresses considered topics as diverse as "The Asian Turn Toward Science Technology Studies (STS)," "From Hierarchies to Processes: Integrating Chinese Medicine into Modern Health Care Systems," "East Asian Scientists and Nobel Prizes," and Nathan Sivin's "Personal Reminiscences of a Generation." Several of the lectures will be published in the society's journal, *East Asian Science, Technology, and Medicine*. Information is also available at <http://www.hopkinsmedicine.org/histmed/news/eastm.index.html>.

On February 21-22 NOAA's Office of National Maritime Sanctuaries co-sponsored the *20th Annual Symposium on Maritime Archaeology and History of Hawai'i and the Pacific*. The conference was held at the Honolulu sanctuary offices in Hawaii Kai on the Island of O'ahu. Over 75 maritime preservation professionals and members of the public gathered for two days of presentations and panel discussions, followed by receptions and special evening events. Participants included speakers from Australia, California, Oregon, and all across the local islands. Museum directors and preservation specialists from the San Diego Maritime Museum, the San Francisco Maritime Museum, the Australia National Maritime Museum, USS Bowfin Museum, USS Missouri Association, Friends of the Falls of Clyde, and the WWII Valor in the Pacific National Monument all focused on the topics of historic museum ships, and the plight of Hawaii's own National Historic Landmark vessel, "Falls of Clyde." The 265-foot, 1,800-ton iron-hulled "Falls" was the only surviving full-rigged four-masted sailing vessel left in the world. Her masts have been taken down and the fate of the deteriorating vessel remains unclear.

Additional topics included Arctic whaling photographs, submerged naval aircraft from World War II, ship petroglyphs in Hawai'i, heritage resources in the remote Pacific islands, local students on board sailing replicas, the Australian Coral Sea heritage park, and more. The symposium also highlighted NOAA's own maritime heritage efforts, with presentations by Dr. Tim Runyan, Dr. Hans Van Tilburg, and Dr. Kelly Gleason. The Office of National Marine Sanctuaries' Pacific Islands Region, together with the University of Hawai'i's Marine Option Program and the local non-profit MAHHI Foundation, are providing the residents of Hawai'i with the only venue for maritime history and maritime heritage preservation in the state.

For additional information, please visit www.mahhi.org/20th_symposium.html.



**FUTURE MEETINGS, CONFERENCES, SEMINARS,
and CALLS FOR PAPERS**

17-18 April 2009. “Permanence and the Built Environment in the Pacific Basin, 1700-1820,” to be held at the University of Southern California in Los Angeles. For additional information, please visit <http://oieahc.wm.edu/conferences/permanence/pacificbasin> or contact Prof. Rainer Buschmann at Rainer.Buschmann@csuci.edu.

14-17 May 2009. “Ports, Forts and Sports: Maritime Economy, Defense and Recreation through Time and Across Space,” the 28th Annual Conference of the North American Society for Oceanic History (NASOH), co-sponsored by the National Maritime Historical Society and the Steamship Historical Society of America. Papers and panels will explore all fields of study related to saltwater or navigable freshwater environments, including, but not limited to, archaeology and anthropology, arts and sciences, history, and museums. For additional information, please contact Victor T. Mastone, Board of Underwater Archaeological Resources, Commonwealth of Massachusetts, 251 Causeway Street, Suite 800, Boston, MA 02114, USA Email: victor.mastone@state.ma.us and/or James M. Allan, Saint Mary’s College of California, Department of Anthropology, P. O. Box 4613, 1928 Saint Mary’s Road, Moraga, CA 94556, USA Email: jallan@stmarys-ca.edu.

1-3 July 2009. “Pacific Island Archaeology in the 21st Century: Relevance and Engagement,” to be held in Koror, Palau. Academics, government agencies, indigenous groups, and cultural resource professionals are encouraged to present critical discussions and papers regarding the potential significance and contribution of heritage to the resolution of contemporary issues. The submission deadline is April 15, 2009. For additional information, please visit www.pacificarchaeology2009.com.

2-5 July 2009. Annual Conference of the British Society for the History of Science, to be held at Stamford Hall, University of Leicester, United Kingdom. The program includes papers and panels from historians of science, technology, and medicine. The meeting includes a conference dinner at the National Space Centre. Please send all inquiries to bshsLeicester2009@bshs.org.uk.

12-17 July 2009. Meeting of the International Society for the History, Philosophy, and Social Studies of Biology, to be held at Emmanuel College, St. Lucia, Brisbane, Australia. For details, please visit <http://www.ishpsb2009.org/>.

28 July-2 August 2009. XXIIIrd International Congress of History of Science and Technology, to be held in Budapest, Hungary. The general subject is “Ideas and Instruments in Social Context.” Questions? Visit <http://www.conferences.hu/ichs09>.

27-31 July 2009. Fifth International and Interdisciplinary Conference, Alexander von Humboldt, 2009: Travels Between Europe and the Americas, to be held at the Freie Universität, Berlin, Germany. Papers and panels include those from all disciplines concerning von Humboldt, travel and science, global environments, European-Latin American scientific and travel connections, and contemporary travel writing. For additional information, email Prof. Oliver Lubrich at lubrich@zedat.fu-berlin.de.

12-13 September 2009. “Asian-Pacific Perspectives at the Alaska-Yukon-Pacific Exposition,” a symposium organized by the Chinese in Northwest America Research Committee (CINARC). The symposium focuses on Chinese, Japanese, Filipino and Hawaiian participation at the 1909 Exposition and will include stories about such participation as a way of understanding the development of those Asian-Pacific communities. What were their images in their own eyes and in those of others? For information, visit www.cinarc.org or contact Bennet Bronson at Bronson@cinarc.org.

23-26 September 2009. 10th International Symposium on Maritime Health, to be held in Goa, India. The theme for the symposium is: “Quality Maritime Health & Seafarers Welfare—A Global Perspective.” For additional information, please contact Dr. Suresh Idnani, Chair ISMH 10 at chairman@ismh10.com.

28 September – 2 October 2009. “Health and Medicine at the Frontier,” 2009 Conference of the Australian and New Zealand Society of the History of Medicine, to be held in Perth, Western Australia. Papers on any topic in the history of health and medicine are welcome. Specific conference themes include, but are not limited to: “Aboriginal Health,” “Health, Medicine, and Maritime Exploration,” “Philatelics and Other Collectibles,” “Health and Medicine on the Frontier,” and “Infectious Diseases.” Please send by April 30, 2009, the title of the paper, an abstract of no more than 150 words, and a brief bio of no more than 50 words, with your name and institutional affiliation (if applicable) to: L.Layman@murdoch.edu.au and crienafz@iinet.net.au.

20-22 November 2009. “150 Years of Evolution: Darwin’s Impact on the Humanities and Social Sciences,” a symposium in honor of the 200th birthday of Charles Darwin and the 150th anniversary of the publication of *Origins of Species*, to be held at San Diego State University. Scholars from all disciplines will discuss the impact of Darwin’s ideas in the Humanities and Social Sciences, including disciplinary specific or interdisciplinary papers. For additional information, contact Symposium Chair, Department of Philosophy, SDSU, 5500 Campanile Drive, San Diego, CA 92182-6044, USA or (619) 594-6706.



BOOK, JOURNAL, and PUBLICATION NEWS

The first issue of *Coriolis: The Interdisciplinary Journal of Maritime Studies* is now available at <http://ijms.nmdl.org>. Named after the physical forces that drive global ocean currents and human activities at sea, *Coriolis* welcomes studies in history, literature, art, music, archaeology, and environmental studies concerning maritime issues of all regions and times. Work that explores interdisciplinary approaches is particularly encouraged. Questions? Please contact the editors: Paul O’Pecko at paul.opecko@mysticseaport.org and/or Andrew German at andy.german@mysticseaport.org.

Ashgate Publishing and Pickering & Chatto Publishers announce Neil Chambers, ed. *The Indian and Pacific Correspondence of Sir Joseph Banks, 1768-1820*, currently available as part of “The Pickering Masters” Series. The seven volumes include over 2,000 letters. Correspondents include Edmund Burke, Captain James Cook, Matthew Flinders, Arthur Phillip, Benjamin Franklin, Joseph Priestley and Johann Friedrich Blumenbach.

The California Academy of Sciences has recently published Michael T. Ghiselin, *Darwin: A Reader’s Guide*, California Academy of Sciences Occasional Papers Number 155. Copies can be ordered from Scientific Publications, California Academy of Sciences, 55 Music Concourse Drive, San Francisco, CA 94118, USA. Price is US\$16, which includes shipping, but California orders must include the additional 9.25% sales tax.

The Imperial Map: Cartography and the Mastery of Empire, edited by James R. Akerman, is currently available from the University of Chicago Press. It includes several chapters of possible interest to Circle members, including ones on China and Ibero-america, as well as Graham Burnett’s “Hydrographic Discipline among the Navigators: Charting an ‘Empire of Science and Commerce’ in the Nineteenth-Century Pacific.”

Scientia Canadenis, the Canadian journal of the history of science, technology, and medicine, invites submissions for a special comparative issue on “The History of Circumpolar Science.” Articles on the Arctic, Subarctic, and Antarctic regions and any national context are encouraged. Papers from non-Canadian perspectives are welcome and the editors are particularly interested in proposals that engage in comparative or transnational analysis. Abstracts of 250-500 pages should be submitted no later than May 1, 2009. Please submit to Liza Piper at epiper@ualberta.ca. Full manuscripts are due by December 1, 2009. Those final papers should be between 7,500 and 10,000 words, notes included. The special issue will appear in Fall 2010. Questions? Please contact Dr. Piper at the noted email address or via The Department of History & Classics, University of Alberta, Edmonton, Canada T6G 2H4.

 SELECTED RECENT PACIFIC BIBLIOGRAPHY

BOOKS and BOOK CHAPTERS

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- Before and After Darwin: Origins, Species, Cosmogonies and Ontologies*, by **M. J. S. Hodge**, Aldershot: Ashgate, 2008.
- Birds of East Asia: China, Taiwan, Korea, Japan and Russia*, by **Mark Brazil**, Princeton, NJ: Princeton University Press, 2009.
- Birds of Europe, Russia, China, and Japan, Non-Passerines: Loons to Woodpeckers*, by **Norman Arlott**, Princeton, NJ: Princeton University Press, 2009.
- Darwin Studies: A Theorist and His Theories in their Contexts*, by **M. J. S. Hodge**, Aldershot: Ashgate, 2009.
- Ethnobotany of Pohnpei: Plants, People, and Island Culture*, ed. by **Michael J. Balick**, Honolulu, HI: University of Hawai'i Press, 2009.
- Foreign Bodies: Oceania and the Science of Race, 1750-1940*, ed. by **Bronwen Douglas** and **Chris Ballard**, Canberra: ANU E Press at <http://epress.anu.edu.au>.
- Galapagos: The Islands that Changed the World*, by **Paul D. Stewart**, et al. New Haven, CT: Yale University Press, 2008.
- Gold Rush Port: The Maritime Archaeology of San Francisco's Waterfront*, by **James P. Delgado**, Berkeley, CA: University of California Press, 2009.
- Hawai'i's Ferns and Fern Allies*, by **Daniel D. Palmer**, Honolulu, HI: University of Hawai'i Press, 2008.
- Indo-Pacific Nudibranchs and Sea Slugs. A Field Guide to the World's Most Diverse Fauna*, by **Terrence M. Gosliner**, **David W. Behrens** and **Angel Valdes**, Gig's Harbor: Sea Challengers and San Francisco: California Academy of Sciences, 2008.
- Mathematics in India*, by **Kim Plofker**, Princeton, NJ: Princeton University Press, 2008.
- Nature of the Rainforest: Costa Rica and Beyond*, by **Adrian Forsyth**, **Michael Fodgen** and **Patricia Fodgen**, with foreword by **E. O. Wilson**, Ithaca, NY: Cornell University Press, 2008.
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“Exploiting Marine Wildlife in Queensland: The Commercial Dugong and Marine Turtle Fisheries, 1847-1969,” by **Ben Daley**, **Peter Griggs**, and **Helene Marsh**, *Australian Economic History Review* 48:3 (2008), 227-265.

“The First Report of the Biology of *Proterops borneoensis* Szepligetii (Hymenoptera: Braconidae: Ichneutinae), with the Description of a New Species from China,” by **C. Van Achterberg** and **R. Desmier de Chenon**, *Journal of Natural History* 43:11&12 (2009), 619-633.

“Four New Species of *Platycephala* with a Key to the Chinese Species (Diptera, Chloropidae),” by **Shuwen An** and **Ding Yang**, *Journal of Natural History* 43:7&8 (2009), 399-409.

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“God Bless General Peron:” DDT and the Endgame of Malaria Eradication in Argentina in the 1940s,” by **Eric D. Carter**, *Journal of the History of Medicine*

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“A Spectacular New Species of *Nepenthes* L. (*Nepenthaceae*) Pitcher Plant from Central Palawan, Philippines,” by **Alastair S. Robinson**, **Andreas S. Fleischmann**, **Stewart R. McPherson**, **Volker B. Heinrich**, **Elizabeth P. Gironella** and **Clemencia Q. Pena**, *Botanical Journal of the Linnean Society* 159:2 (2009), 195-202.

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DISSERTATIONS and THESES

Colonial Power and Medical Space: The Transformation of Chinese and Western Medical Services in the Tung Wah Group of Hospitals, 1894-1941, **Xiangyin Yang, Ph.D.**, The Chinese University of Hong Kong, 2007, “examines the confrontation and interaction between Chinese medicine and Western medicine, and the diverse and complicated Chinese attitudes towards western medicine by studying the history of the introduction of western medicine into Hong Kong and the case of transformation of Chinese and western medical services in the Tung Wah Group of Hospitals during the period between 1894 and 1941... Taking into account the colonial nature of modern Hong Kong, this author examines Tung Wah Group as a medical space gradually developed from one that used only Chinese medicine into one in which Chinese medicine and western medicine coexisted.”

Electrifying Seoul and the Culture of Technology in Nineteenth-Century Korea, **Min Suh Son, Ph.D.**, University of California–Los Angeles, 2008, analyzes “the electrification of Seoul at the end of the nineteenth century... as a useful medium for understanding Korea’s path towards modernization... The electric light, used publicly for the first time in Korea with the lighting of the Kyongbok Palace, marked a significant leap forward in Korea’s path to modernization that facilitated the larger goals of the Taehan Empire period (1897-1910)... While recognizing that these technologies and many fundamental principles of modernization were learned from Europe and America, this study emphasizes the role of Korean traditions on the emerging style and quality of modernization in Korea.”

Evolutionary Statecraft: The Ming State and Local Elites in the Field of Hydrological Management in the Lower Yangtze Delta, **Cho-ying Li, Ph.D.**, Harvard University, 2007, “examines the evolution of statecraft in the field of hydrological management by focusing on the roles of the Ming state and local elites in administrative coordination, regulation of funding and corvee, and formulation of hydrological knowledge.”

Hanmi Hyo Pcho (Korean-American Cooperation) and the Origins of South Korean State Science, 1945-1975, **John Paul DiMoia, Ph.D.**, Princeton University, 2007, offers “six in-depth case studies of mutual aid programs between the two countries, tracing the construction of a South Korean scientific community from the close of World War II to the mid-1970s, at which point the ROK economy was regarded as roughly comparable to or surpassing that of North Korea.”

The Names of Nature: The Development of Natural History in Japan, 1600-1900, **Federico Marcon, Ph.D.**, Columbia University, 2007, “is a social and intellectual history of the discipline of *honzōgaku* in Japan: from its beginning in the early years of the seventeenth century as a pharmacological sub-field of medicine through its evolution in the second half of the eighteenth century into an autonomous discipline of natural history to its ultimate merging into modern life sciences in the late nineteenth century.”

Nuclear Waste Facility Siting in Korea: The Relations Between Government Compensation, Distance, and the Public's Judgment of Risk, **Jin Sik Choi, Ph.D.**, State University of New York at Albany, 2007, empirically tests “how perceptions of nuclear risk are influenced by how far away people live from the nuclear waste facility and whether they are compensated by the government.”

The Science of Nation Building: A History of Geographic Sciences in Colombia, 1821-1921, **Lina Maria Del Castillo, Ph.D.**, University of Miami, 2007, “argues that the development of geographic sciences can and should be understood as inextricably intertwined in processes of state formation in Colombia from independence until 1921, the year Panama's independence was finally recognized by all parties.”

The Symptom of Cluster of Fatigue, Pain and Psychological Distress and its Impact on the Quality of Life in Chinese Patients with Breast Cancer Undergoing Cancer Treatment, **Kwok-Wei So, Ph.D.**, University of Colorado Health Sciences Center, 2007, examines “the symptom cluster...of breast cancer patients receiving chemotherapy or radiotherapy. The Revised Model for Symptom Management was used to guide this study.”

Techniques of the Environmental Observer: India's Earth Remote Sensing Program in the Age of Global Information, **Lane A. DeNicola, Ph.D.**, Rensselaer Polytechnic Institute, 2007, “examines the emergence in India of earth remote sensing (ERS), a principal medium for environmental analysis, communication, and policy-making...Raising many thorny issues in information access and control, the

use and popularization of ERS has intensified dramatically since the mid-1980s.”

Trading in Birds: A History of Science, Economy, and Conservation in United States-Colombia Relations, **Camilo Quintero, Ph.D.**, The University of Wisconsin-Madison, 2007, “uncovers the history behind the trade of Colombia birds as a means to comprehend the complex scientific, economic, and environmental relations between the United States and Colombia since the late nineteenth century.”

BOOK REVIEWS

Benedikt Stuchtey, ed. *Science Across the European Empires, 1800-1950*. New York: Oxford University Press, 2005. Pp. viii + 376. Cloth: 60 pound sterling and 92.40 Euro. Paper: ISBN 019927620X. [*Studies of the German Historical Institute of London, Number 5*]

This collection brings together a compelling set of contributions that explore the place of science and technology in the context of modern European imperialism. Benedikt Stuchtey provides an expert introduction to a volume that situates the national-experience of science in terms of motives and models, metropolitan identities and colonial identities, and the study of tropical diseases at home and abroad. The contributions include selected aspects of science in the English-speaking world by Donald P. McCracken, Markus Kirchoff, and Roy MacLeod and on the Dutch East Indies by Suzanne Moon. The experiences of Germany and France receive the most extensive as this review reflects. Covering the period after the 1870-1871 Franco-Prussia War, the case studies on the place of science – broadly understood – bear out the short-lived and long-lasting empire of Germany and France respectively. At the same time, they detail how imperialism and colonialism helped to consolidate fields in the human and medical sciences and, in turn, how linguistics, ethnography and tropical medicine promised to facilitate the conquest and control of empires.

The needs and opportunities of the empire provided an important rationale but not the only one for establishing new institutions in Germany. As documented by Lothar Burchardt, the narrow academic focus of university language study spurred the established of the School of Oriental Languages in Berlin in 1887 with support from the Ministry of Culture and the German Foreign Office. For the state and industry, its conversational language instruction was far more appropriate for pursuing commercial enterprises in Far East and Middle East. Other languages augmented the school’s offerings. The Society for German Colonization successfully lobbied for one African language, Bantu (Swahili), and European languages were later added. But, the demand for languages spoken in German colonies consistently trailed those of the Far East, the Middle East and

Europe. The inclusion of area studies to the curriculum, such as the addition of courses on economic development and colonial and consular law, grew out of the needs of colonial administration. Eduard Sachau, the first director, harnessed this demand to his vision of an autonomous colonial academy or university. A range of factors, however, conspired to stunt his ambition. These include growing competition for language and area studies instruction from other institutions, greater political leverage of universities, and indecision among Reich officials and Prussian representatives. Defeat and the loss of Germany's colonies after the First World War effectively ended the imperial purposes of the school.

The Hamburg Institute of Nautical and Tropical Diseases addressed a need for Germany's growing colonial empire, as well. As Wolfgang Eckert shows, the politics of its founding highlights how the needs of the empire were defined in reference to metropolitan priorities. An animated discussion among doctors and colonial enthusiasts about the capacity of Germans to acclimate to the tropics medicalized the colonial project while creating the political space for an institute to study tropical diseases. At one end of the spectrum was Ernest Below who insisted on the study of racial acclimatization to confirm what he described as "equatorial self-regulation of the species." The highly respected bio-medical investigator Rudolf Virchow rejected this view out of hand and argued for tropical hygiene based on practical research experience not on a pseudo-biological theory. Although Below and Virchow disagreed, their views highlighted a limitation in the existing imperial health department. By the turn of the century parallel proposals emerged to address this need.

Building on its program in training ship doctors, the Hamburg Medical School decided to establish a Department of Tropical Hygiene. This initiative came close to being supplanted by a concurrent proposal for a national institute to be associated with Berlin University and controlled by the Colonial Department of the Foreign Office. None other than Robert Koch, Germany's leading bacteriologist, lobbied the government for an institute that would support the training of health professionals and the health needs of German travelers and government personnel through research expertise on tropical diseases. The Reich government ultimately decided to locate the institute at Hamburg because its planning was further along than Berlin. But, as Eckart lucidly discusses, the final result was preceded by hard bargaining between the Senate's negotiators and representatives of the Colonial Council about control over the institute, associated hospital, and personnel. Hamburg secured a fair measure of control, but had to finance the lion's share of the institute. Until 1914, it trained colonial and military personnel and mounted thirteen scientific missions funded by both private and mixed sponsorship. Like the Berlin School of Oriental Languages, the institute ceased operations as a result of the loss of territories and circumscribed economic and international ambitions due to the war.

The volume's contributions that relate to the French experience demonstrate the role of science in advancing imperial expansion and colonial ideology. According to Patrick Petitjean, the idea of science or scientism played an integral role in the larger 'civilizing mission.' The human sciences, especially anthropology and ethnography, provided a rationale for organizing and ordering societies, one that shifted from a basis in cultural to racialist theories. In measuring racial difference as an explanatory model for human development, these fields and others provided a rationale for a set of colonial ideologies, i.e. assimilation and association, that were based on "the devaluation of other societies" and the presumed superiority of the white race. Whether non-white races could or could not be civilized they needed to be protected from or, at least, guided into the modern world. Rather than being representative of the margins of metropolitan science, Petitjean makes a compelling case for the sustained integration of Paris-based institutions before and during the Third Republic. Early research expeditions were partnerships between the state – usually the military – and learned societies. The former subsidized the travel while the latter set the scientific agenda. As the empire figured more prominently, the number and scale of expeditions increased as did the involvement of societies. Some fields of study such as natural science and medicine were closely tied to expansion. For established and new societies, the conquest and control of possessions accelerated the production of knowledge for travelers and the government and the general public.

C. Michele Thompson's study of medicine and pharmacology in Indo China between 1800 and 1950 confirms the instrumental role of medicine as French expansion shifted from initial contact to colonialism. As special advisors to the Nguyen dynasty beginning in the late eighteenth century, French doctors introduced western practices such as vaccination. Later, in both official and semi official roles, they participated in expeditions and in the administration of French Indo China. These and others mapped the world as part of broader concern to understand the utility of the French relationship to Vietnam, Laos and Cambodia. They not only introduced new Jennerian vaccination for smallpox but also established western medical schools. The indigenous encounter with western bio-medical technology and institutions increasingly became sites for conflict that revealed the racial hierarchies within the colonial enterprise. Local subjects resisted vaccination and colonial doctors initially excluded healers from participating. It was only after the opening of the first medical school in Hanoi in 1902 that the participation of local healers was officially sanctioned. The privileging of western medical doctors over indigenous practitioners also extended to the rigid racial bars in medical education or other positions of authority in the practice western medicine. As Thompson chronicles, western trained Indo Chinese doctors were barred from teaching at Hanoi Medical School until 1954 or even obtaining hospital privileges until 1938. The various research units, such as the Pasteur Institutes at Saigon and Nha Trung, were dominated by French

investigators and Indo Chinese chiefly functioned as assistants. The experience of discrimination contributed to policizing western- educated Indo Chinese elites into critics of the 'civilizing mission.' One critic who would become a Vietnam nationalist was Ton That Tung. An accomplished surgeon turned parasitologist, Tung would become one of the architects of the medical corps of the Viet Minh armies that would push France out of South East Asia.

French ethnography presents another illustration of the intersection of colonialism and French science. For a society that conceived of itself as the model of human civilization, there was little to gain from studying backward societies. Ethnography occupied the margins of anthropology which privileged an anthropometric bias. The field's main learned society (Societie d'Ethnographie) was in decline. It lacked a major presence in the key training institutions (Ecole d'Anthropologie de Paris and the Ecole Coloniale or the Universites popularizes). In charting the politics of the field, Emmanuelle Sibeud has identified African colonial ethnography and its practitioners as critical in reanimating ethnography and recasting metropolitan anthropology. Maurice Delafosse was among the first generation of *broussards* or colonial agents who engaged in fieldwork and disseminated their finding in the field metropolitan venues that were open to them or launched their own. In insisting on the scientific study of African societies, Delafosse challenged the prevailing indifference of anthropology, except for a younger generation led by Marcel Mauss. The shift in colonial policy from assimilation to association enhanced the value ethnographic fieldwork. Yet, Delafosse was more reformer than revolutionary. He and others sought to professionalize fieldwork and integrate the labor of colonial agents into the institutional culture and practice of anthropology. What he initiated would later be achieved by Mauss and contemporaries who institutionalized cultural anthropology as a major research orientation in the twentieth century.

If any event displayed the cultural work of anthropology, surely the 1931 Colonial Exhibition must be the most spectacular. Envisioned by Marcel Oliver, the former colonial governor of Madagascar, the French public over several months encountered the asymmetrical logic of colonial humanism (universalism and particularity). In pavillons and concurrent displays in the Musee de l'Homme and the Musee d'Ethnographie subject populations from Africa and Southeast Asia and their cultural production were placed on display as a form of colonial ritual performance. As perceptively discussed by Benoit De L'Estoile, these venues staged the meaning of colonial humanity through a set of cognitive schemes. African and Asian objects – animate and inanimate – were organized into anthropological and archaeological categories which rendered hierarchization as normal and colonial rule as necessary. Evolutionist, differentialist, and primitivist schemes respectively rendered the absence of contact with France, the effects of the encounter with modern civilization, and "the bizarre, the return to the primitive, to the

savage, to the origins.” Collectively, the exhibition produced a fiction of the French empire that reconciled the diversity of colonial humanity by imposing order.

Helen Tilley analyzes the politics of racial science in colonial Africa during the inter-war period. After the redistribution of the territories of vanquished powers into mandates engendered greater attention and scrutiny about colonial development. As a British territory Kenya was not a part of the mandate system per se. Yet, it became a proxy for British colonial development policy as tensions between indigenous inhabitants and white settlers over a host issues intensified. The “mental capacity” of the African became the crux of official and academic discussions about the nature of imperial trusteeship. Would Africans be treated like Europeans? As Tilley discloses, the response to this question reflected the political limitation of racial sciences as a discourse of action. Based on a crude comparison of the cranial capacity of Kenyans and Europeans, Kenyan-based investigator H. L. Gordon argued that differences between these populations were grounded in biological inferiority. In suspecting Gordon’s methodology and/ conclusions, British-based researchers, such as social anthropologist Bronislaw Malinowski, doubted the credibility of race as a reliable category for sorting humans or explaining human difference. At least privately, University of London psychologist Julian Huxley was open to exploring African physiology and intellect with the tools of cognitive science. The official mind was skeptical, if not outright hostile. British and Kenya officials were anxious about the potential for negative fall out, namely, undermining educational and social development on the continent. Rather than taking the matter up officially, the Colonial Office directed members of the African Survey, an autonomous research body, to address the issue of African capacity. In reporting no basis for drawing conclusions about the mental capacity of Africans based either on physical differences or intelligence tests, the survey moved the discussion of difference away from innate or hereditary qualities. As Tilley notes, in the absence of explicitly embracing or rejecting social equality, the issue of mental capacity did not go away. Instead, it would continue to inflect policy debates among about the future of Africa well into the twentieth century.

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Ann Jannetta, *The Vaccinators: Smallpox, Medical Knowledge and the "Opening" of Japan*. Stanford, CA: Stanford University Press, 2007. Pp. xviii +245. B&W Plates. Footnotes. Bibliography. Index. Charts. Maps. Cloth: US\$45 and ISBN 0804754986 and ISBN 978-0804754897.

This is a book about connections: connections between cowpox infected milk-maidens and cowpox immunity; between European doctors in the metropole and in the colonies, between arm pock and arm pock; and between the network of Japanese doctors interested in Dutch medicine during the late-Edo period (1603-1867 C.E.) who laid the foundations for a national vaccination policy enacted by the Meiji Government in the 1870s (pp. xv-xvi). In short, this book is about the history of smallpox vaccination in pre-Meiji Japan.

A common set of questions concerning the adoption and adaptation of foreign thought-systems in pre-Meiji Japan forms the basis of this book: What did the Japanese know? How did they use it? *The Vaccinators* is part of a growing literature that looks at the activities of Dutch medicine or *ranpō* doctors to reveal what they did with Western medical knowledge. Similar to Ellen Gardner Nakamura's *Practical Pursuits: Takano Choei, Takahashi Keisaku, and Western Medicine in Nineteenth-Century Japan* (Cambridge, MA: Harvard University Asia Center, 2005), Jannetta's volume argues that *ranpō* was not simply an insignificant precursor to the introduction of German experimental medicine in the Meiji period (1868-1912 C.E.), but, rather, was used to address medical issues of the day. In *The Vaccinators*, Jannetta examines the latter half of the Edo period, focusing on a group of Dutch-medicine or *ranpō* doctors who, convinced of the effectiveness of vaccination as the method for disease prevention, constructed a network of fellow practitioners and political allies who hoped to establish an archipelago-wide vaccination program. Jannetta argues that the vaccinators prefigured the "opening" of Japan to the West, and "were a catalyst for Japan's rapid and successful modernization," playing an important role in the post-Meiji Restoration era (p. 2).

Opposed to the medical culture in Europe that consisted of experimentation, scientific reporting, peer review, and general interaction across national boundaries, medical knowledge in Japan "was transmitted vertically through hereditary medical lineages that were inclined to guard their secrets jealously. The transmission of medical knowledge in Japan was almost entirely a private matter" (p. 5). Because of the closed nature of premodern medical lineages, Japan needed a social revolution before the eradication of smallpox was possible. Jannetta argues that the origins of this revolution can be seen in the activities of the *ranpō* doctors (p. 5).

The first several chapters concern the nature of the smallpox virus, *Variola major*, the history of Edward Jenner's use of cowpox to inoculate against smallpox infection, and the spread of this practice to European colonies in Southeast Asia by the beginning of the nineteenth century. This is where and when the connection to Japan began.

During the Edo period, Japan consisted of several hundred domains ruled by regional warlords who exchanged submission to the central paramount power, the Tokugawa shogun, for local autonomy. The shogun controlled the activities of the regional lords, but not their domains. A major pillar of Tokugawa authority was the monopoly over foreign relations. The shogun maintained official (trade) relations with China and the Netherlands through the port of Nagasaki. Trade with the Dutch was limited to an island called Dejima in Nagasaki Bay. There, a small Dutch East India Company staff, including a doctor, manned the station. The official interpreters used their association with the Dutch to learn western medicine from the doctors stationed at Dejima. In the eighteenth century, Nagasaki slowly became the center for not only learning Dutch, but also for the study of western medicine, as well. It was through the station on Dejima that Dutch doctors spread western medical knowledge to a handful of Japanese medical men interested in European techniques, and it was through this station that viable smallpox vaccines had to pass.

The closest Company office was on the Indonesian island of Batavia (Jakarta). From the 1820s, Dutch officials in Nagasaki requested vaccine and lancets from Batavia to domesticate the practice of vaccination in Japan. The pox lymph, however, continually lost its virility on the journey from Indonesia to Japan. Dutch physicians continued to try, inviting their Japanese students to participate, making the attempt to successfully import cowpox materials and then vaccinate children – a joint Dutch-Japanese enterprise.

In 1823, Philipp Franz von Siebold became the company physician in Nagasaki. Trained as a clinician and a surgeon, he was well suited to promote the theory and practice of smallpox vaccination within the community of *rampō* doctors in Japan. Since he did not have viable cowpox material, he instead focused his efforts to establish a network to promote the benefits of vaccination. His efforts paid off. His students maintained a lineage dedicated to propagating western medicine and this group was ultimately responsible for establishing the smallpox vaccination in Japan. Siebold's students created a "network that transmitted medical knowledge through horizontal links connecting 'colleagues' with common 'professional' interests. This was no small accomplishment in a society in which there were neither colleges nor professions... [this] multidirectional network made it possible for these new colleagues to collaborate and build networks across domain lines, a development that had the potential to challenge Japan's vertically constructed institutions controlled at the top

by the Tokugawa” (pp. 95-96). Despite failed attempts, *ranpō* doctors continued to receive cowpox material from Batavia. Many doctors also began cultivating contacts with Japanese officials in order to get the political support necessary for widespread vaccination. Nabeshima Naomasa, warlord of the coastal domain hosting the port of Nagasaki, was one of the earliest supporters of vaccination.

Since the material sent from Batavia, lymph, usually lost its viability, Japanese medical men requested dried cowpox scabs be sent instead. In August 1849, two forms of vaccine, lymph and dried scabs, arrived, and the Dutch translator and doctor Narabayashi Soken assisted the Company physician in vaccinating three children, including his third son. The Narabayashi boy was the only child treated with the scab material, and this was the only vaccination that worked. Once they had a successful vaccination, *ranpō* specialists used the network that was several decades in the making to transmit the vaccine throughout the archipelago. The vaccine moved from arm-to-arm quickly from Kyushu up to the ancient capital of Kyoto and Osaka, then north to the Japan Sea town of Fukui and the shogun’s capital of Edo. These geographical locales were important because each had one if not several Dutch learning schools connected to the Siebold lineage.

From 1849, doctors began a mad rush to publish vaccination texts. Many of these texts carried detailed drawings of how arm-to-arm vaccination was executed. It was important to convey not only the technique, but also trust in a new, foreign method of disease prevention. Medical men used two familiar strategies. One was to establish the history (historical precedent being important in Japan) of cowpox vaccination as a proven practice. The other was to couch prevention in simple terms using familiar images. Many depictions featured Buddhist figures saving children from the smallpox demon or of children on cows, wielding lances, driving off the disease-causing malignant spirit. Jannetta writes that these publications “were an essential part of the effort to introduce vaccination to Japan, because maintaining a viable vaccine supply depended upon having children to vaccinate” (p. 157).

From 1858, the community of Dutch medical doctors opened, with the permission of the shogun, a vaccination clinic in Edo. Four years later, the government had taken over the administration of the clinic and transformed it into the Institute of Western Medicine. The shogun had supported the opening of the Nagasaki Medical School beginning in 1858 and three years later funded the expansion of a hospital wing for Dutch doctors to teach clinical medicine. In 1867, a coalition of southern warlords united to break the Tokugawa family’s hold over national politics, founding a new, modern Japan under the leadership (in theory, but not in practice) of the imperial family. One of the bases of this new state was the adoption and adaptation of western science and technology. Many of the students sent to train at the Nagasaki

Medical School became the first generation of public health officials in the Meiji era. That is, the crossover generation of doctors was set to enact medical reforms in order to bring the nation up to par with the medical and hygienic standards of the western powers. “Vaccination policy,” Jannetta writes, “was the cornerstone of public health policy from the outset” of the Meiji period (p. 178). Nagayo Sensai, star student of the Nagasaki Medical School in the 1860s, became the first Director of the Hygiene Bureau from 1872, and by 1879, foreign doctors in Japan were praising him and his efforts to spread smallpox vaccination throughout Japan. Likewise, statistical data from the Bureau attested to the effectiveness of vaccination. That data showed declining incidence rates during smallpox epidemics across the Meiji period.

In her Conclusion, Jannetta states that the network of *ranpō* doctors weathered the fall of the Tokugawa shogunate, taking “a central role in creating the political, social, and intellectual infrastructure of the modern Japanese state” (p. 181). She continues:

The half-century delay in bringing cowpox vaccine to Japan demonstrates the extreme isolation of the Tokugawa government from the concerns of Japanese society, as well as from important knowledge in the world beyond Japan at the beginning of the nineteenth century. Internal structural barriers prevented useful information from reaching an informed authority that was competent and willing to act upon it. It is in this sense that Japan was a ‘closed’ country. It is in this sense that the physicians featured in this book played a significant role in ‘opening’ the country. *The Vaccinators* views Japan’s *ranpō* physicians as important agents of change (pp. 181-182).

The Vaccinators is an important addition to the small, but growing scholarly literature on Japanese medical history. It adds to our understanding of informal and often extra-feudal networks constructed to spread the study of Dutch medicine. We can see the ‘progressive’ tendencies of *ranpō* doctors as they made, extended, and replicated horizontal associations across hierarchical lines and feudal boundaries, reinforcing the growing consensus that by the time of the Meiji Restoration in 1867, many aspects of Japan were already ‘modern.’ Finally, Jannetta reiterates an important, but overlooked point: Edo period tacit knowledge and medical know-how survived the pre-modern/modern transition and formed the basis for the Meiji state’s western-style medical regime.

That said, this final point is the weakest of Jannetta’s argument. The field of modern Japanese history rightly assumes that western science, technology, and medicine was a fundamental part of the Meiji project to bring the nation up to par with the Western powers. There are, however, surprisingly few studies that actually

examine this to any degree. Morris Low, ed., *Building a Modern Japan: Science, Technology, and Medicine in the Meiji Era and Beyond* (New York: Palgrave Macmillan, 2005) is an exception, yet the various contributions do not tackle head-on the question of how western science functioned within the enterprise of nation-building. Jannetta, by subtitling her book, *Smallpox, Medical Knowledge, and the "Opening" of Japan*, promises that she will address this question. Her conclusion, however, does not make good on this promise. The connections between the end of the Tokugawa period and an up-and-running vaccination program during the Meiji era are assumed, but not explored. What role did smallpox vaccination play as a policy and as a fundamental building-block of the Meiji state? We are left wondering.

Part of the reason is that *The Vaccinators* is a short book of only 187 pages of text. The scope and focus are on the Edo period. Like many works on Japan's long nineteenth century, this book could have been one- to two-hundred pages longer, thereby approaching the history of smallpox not as one that naturally stopped at 1867, but one that extended into the 1910s and 1920s. There is no substantial engagement with Meiji source material; instead, it is assumed that the tracks laid at the end of Edo naturally lead to an up-and-running public health system in the late 1880s. A recent article by Ichikawa Tomo, drawn from his Ph.D. dissertation on smallpox, cholera, and plague prevention in Yokohama, reveals that the process of establishing a functioning public health regime and system for contagious disease prevention inside and outside, as well, the treaty port at Yokohama was far from simple. (Please see: "Infectious Diseases and Foreign Settlements in the Japanese Treaty-Ports: The 1879 Cholera Epidemic in Yokohama," *Shigaku zasshi* 117:6 (2008), 1-38). Rather, the messiness of infrastructure building throws into question the great men of medicine narrative of the vaccinators. Indeed, the social history of smallpox during the Meiji and Taisho (1912-1926 CE) eras is a study that is necessary to the fields of Japanese history and East Asian Science, Technology, and Medicine studies because it promises to reveal the extent that public health officials participated in Japanese nation-making in the early Meiji era and state-building in the middle Meiji years.

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