

Needham Research Institute Newsletter

李約瑟研究所通訊

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Cambridge Chair of Chinese Endowed in Honour of Joseph Needham

Through a generous benefaction of the Hong Kong East Asian History of Science Foundation and Trinity College Cambridge, the Professorship of Chinese in the University of Cambridge has been endowed in honour of Joseph Needham. Professor Roel Sterckx, who joined the NRI Board of Trustees in 2007 and holds the Chair of Chinese at Cambridge has been named the University's first Joseph Needham Professor of Chinese History, Science and Civilisation.



Roel grew up in Flanders, in the northeast of Belgium where he took the Latin-Greek gymnasium curriculum at St-Jan Berchmans College, Mol. He read sinology at the University of Leuven, where he also took a teacher training degree in history. Following advanced studies in classical Chinese and Chinese philosophy at National Taiwan University, he came to Cambridge in 1992 to do graduate work in Chinese cultural history. One of the most memorable occasions of his early years as a graduate student was the opportunity to present a Chinese text reading seminar attended by Joseph Needham. His choice of topic for his doctoral work was partly inspired by what, at that time, seemed a curious gap in Needham's *Science*

and *Civilisation in China* series, namely, a volume on Chinese views of the animal world and zoology. This subsequently became the subject of a monograph. Following appointments at Oxford and the University of Arizona, he returned to Cambridge in 2002.

Roel describes himself as a cultural historian with an anthropological curiosity about early Chinese texts and material culture. His contributions to the history of Chinese science include work on Chinese zoology, medical illustration, and natural environments. Other projects include work on the Chinese religious economy, gift culture, perceptions of wealth and poverty in traditional China and a translation of a Ming dynasty manual on fish farming. His published and edited work includes *The Animal and the Daemon in Early China* (SUNY Press, 2002), *Of Tripod and Palate: Food, Politics and Religion in Traditional China* (Palgrave, 2005), *De l'Esprit aux Esprits: Enquête sur la notion de shen en Chine* (Presses Universitaires de Vincennes, 2007). His most recent manuscript is entitled *The Empire of Sense: Food and Sacrifice in Early China*. Roel is a Fellow of Clare College, the Royal Historical Society and the Royal Asiatic Society. He serves as Head of the Department of East Asian Studies at Cambridge and is Secretary-General of the European Association for Chinese Studies. He lives in Cambridge with his wife Chengeng Ang, a molecular biologist, and enjoys gardening, music, fishing and cooking.

Publications

This year has seen three publications linked with the Institute, each a major event in its own field. Pride of place must go to *Science and Civilisation in China* volume V: Chemistry and Chemical Technology, part 11: Ferrous Metallurgy, by Donald B. Wagner (Cambridge University Press). This is a work of immense significance, which makes available for the first time in English a complete account of the technical, economic and social aspects of iron and steel production in China from antiquity through to modern times. Like all *SCC* volumes it contains full references to the latest scholarship in the world's major languages, and while giving all important

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Edited by Susan Bennett

Japan

During April this year our Director Professor Christopher Cullen made a visit to Japan with generous support from the GB-Sasakawa Foundation. A major object of his visit was to carry out research into the history of Chinese mathematics and astronomy at Kyoto University, using the magnificent resources of the Research Institute for Humanistic Studies, as a guest of Professor Takeda Tokimasa 武田時昌. He was also able to take part in a meeting of the *Wasan* 和算 (traditional Japanese mathematics) seminar organised by Professor Ohkawa Toshitaka 大川俊隆 (Osaka Sangyo University), leader of a group which has produced a Japanese translation and study of the *Suan shu shu* 'Writings on Reckoning', an ancient Chinese mathematical text on which Professor Cullen has also published. He also participated in a meeting of the Kansai Branch of the Japanese Society of History of Science in Kyoto, at which papers were delivered by Dr Catherine Jami, currently a visiting researcher at the NRI (Mathematics in the Kangxi reign) and Dr Jun Yong-Hoon 전용훈, one of our former visiting researchers (the Korean reception of Western astronomy in the 18th century).

During his stay in Japan he also visited Tokyo to thank Mr Sasakawa Yohei 笹川陽平, President of the Sasakawa Foundation, for the funding of a 3-year research and teaching associateship in Japanese science, awarded jointly to the NRI and the Faculty of Asian and Middle Eastern Studies. We should also like to thank the British Ambassador to Japan, Sir Graham Fry, and Dr Edward Wright (First Secretary, Science and Innovation) for much helpful advice that pointed the way to other meetings which we hope will lead to further research activities at the Institute in relation to science and technology in Japan.

Korea

In spring this year our Director paid a short visit to Seoul National University in Korea, which is a very active centre for the history of science and technology. He gave a seminar on the subject of prosopographical studies of early Chinese mathematics, and met a number of scholars in related fields. An important achievement of his trip was the signing of a Memorandum of Understanding with Professor Kim Nam-Du 김남두, Director of the Institute of Humanities, under which the NRI will cooperate with Seoul National University as part of the major Korean government funded project 'Humanities Korea'. We look forward very much to broadening and deepening our cooperation with Korean scholars in our field through the exchange of visits by researchers, and the undertaking of joint research tasks.



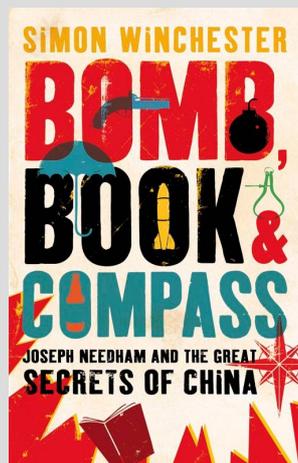
technical information it is also accessible to the reader who is not a specialist in the field. It is copiously illustrated with photographs (some in colour), diagrams and tables throughout, and runs to 369 pages of main text. One of the things that made China into China was early and large-scale access to mass-produced iron tools, rendered possible by the discovery of how to produce molten iron and cast it into moulds centuries before any European could do this. Throughout Chinese history the iron industry played an important role in the economic life of both the state and of ordinary Chinese people. No serious historian of China and indeed no serious student of world history can afford to neglect this book.

Joseph Needham himself published an important short monograph on iron and steel (*The development of iron and steel technology in China*, 1958), but then effectively laid the topic aside for nearly a quarter of a century, until in 1981, at the start of his own ninth decade, he found in Don Wagner the ideal candidate to take over. It has taken more than another quarter-century of toil for the result of Don's work to appear, but any reader of this magnificent contribution to scholarship will surely agree that it has been well worth waiting for.

The Institute's monograph series brings out a quite different kind of book in *Tibetan Medicine in the Contemporary World: Global Politics of Medical Knowledge and Practice*, edited by Laurent Pordié (RoutledgeCurzon). This is a collective work in which a team of experts examine the ways in which one of Asia's great medical traditions has adapted to and indeed appropriated modernity, under particularly challenging political and social circumstances. We are delighted to bring out this important book: as Margaret Lock remarks in her preface "This remarkable multi-authored volume will decisively transform conventional understanding about indigenous medical knowledge and practices of all kinds in the contemporary world".

Finally, we are delighted to be able to announce the appearance of a major life of Joseph Needham by the renowned biographer Simon Winchester, published in the UK as *Bomb, Book and Compass* (Viking Penguin), on 25th September and in the USA as *The Man Who Loved China* (Harper).

Christopher Cullen



'The story of Joseph Needham, Dorothy Moyle, and Lu Gwei-djen is a beguiling one, and the composition of *Science and Civilisation in China* is absorbing in both its broad outlines and myriad details. It was a bold idea of Simon Winchester's to try to tell the two stories, one intimate and the other intricate... I feel that he has pulled it off, and drawn the reader into several disparate worlds at once.'
Jonathan D. Spence, New York Review of Books

'Captivating ...' *Wall Street Journal*

New Sasakawa Research Associate



My name is Aya Homei 保明綾 and from 1st September 2008, I will begin work as a research and teaching Associate in Japanese science and technology at the Needham Research Institute and the University's Department of East Asian Studies, with funding by the Great Britain Sasakawa Foundation. My area

of expertise is the history of medicine in modern Japan. For my Ph.D. degree, which I obtained at the Centre for the History of Science, Technology and Medicine at the University of Manchester in 2003, I worked on the history of medical midwifery in the Meiji (1868-1912) and Taisho (1912-1926) periods. After teaching humanities to science and technology students in Japan for about a year, I returned to Manchester, where since 2004 I have been working on the project, 'Modern medicine as cause and cure: fungal infections and treatment, 1920-1970', which is funded by the Wellcome Trust. As part of the project, I have been looking at how Japanese medical researchers became major players in the global network of biomedical research on infectious diseases.

At the Needham Research Institute, I will start a new project on the history of medical research on radiation sickness after the 'Bikini incident' ('Bikini incident' refers to the American H-bomb experiment in the Bikini Atoll in the Pacific Ocean on 1 March 1954, which affected 23 Japanese fishermen on the tuna boat *Lucky Dragon No.5* as it was sailing near the hypocentre). This project, although this might not be obvious, builds on my current work on fungal infection. When I was studying episodes of fungal infections in Japanese history, I learned that a cause for the death of Mr. Aikichi Kuboyama, the first known Japanese victim of radiation sickness after the Bikini incident, was an infection of his lung with the pathogenic fungus *Aspergillus fumigatus*. I then looked more carefully into the medical research around the death of Mr. Kuboyama, and quickly realised that this was not just an episode in medical mycology, but had a history complicated by larger political, economic and social issues around nuclear energy and nuclear weapons. So at the Needham Research Institute, I will examine medical research that developed from the autopsy of Mr. Kuboyama, and study how these activities by networks of medical researchers and allied scientists in the emerging field of 'radiation medicine', was informing – and informed by – factors such as strategy questions and bilateral diplomacy around nuclear energy between Japan and the USA, moral judgements about nuclear weapons, and the uneasy balance between the ideal of international cooperation in science and national pride.

NEW CHAIRMAN FOR THE NRI

Sir John Boyd KCMG joined the Trustees in 2005 and assumed the Chair in February this year. John first learned about China at Yale (as an MA student). His subsequent Foreign Office career centred on Asia, with two postings each to Beijing and Hong Kong. He was Ambassador to Japan 1992-96 before becoming Master of Churchill College, Cambridge (1996-2006). He has remained passionately engaged with developments in East Asia.



Greetings. It is a great honour to take over the NRI chair from Pamela Youde (who, I am glad to say, remains on the Board). During her chairmanship the Institute has greatly expanded its reach. Her perspective and the Director's energy, not to mention the splendid quality of the NRI staff, made a formidable combination. The *Dragon's Ascent* project was a high point. I am struck by the vigour of the NRI, its welcoming atmosphere, the continuing commitment to scholarly objectivity and the flow of bright visitors, particularly eager next generation students.

The NRI's job is more important than ever. China's thrust, social opening and new levels of prosperity are a central world-fact. The NRI has, in the jargon, a challenge – to keep up with the pace of change and maintain our scholarly lead – and an opportunity – to use our scholarly resources to maximum benefit, with perhaps a particular eye to British schools now working to introduce a China curriculum. We want to make a more considered and visible bilateral contribution as the UK strengthens its relations with China.

Looking to the long term, one objective should be to broaden further the catchment and clientele of the NRI. China and Chinese science will always be our central focus, but much is going on in wider Asia that derives from – and tests – China's tradition. Needham would have followed all this with an eagle eye; and of course with that profound commitment to scholarship and imagination (up there with Proust, as George Steiner says). Simon Winchester's new biography is compulsory reading. He shows Needham as he was; Joseph would have been the first to say that understanding China has to go by the facts.

China and Materiality Workshop at the Needham Research Institute

More than 40 scholars, researchers and visitors attended a workshop on 'China and Materiality: Interdisciplinary Studies of Things', which was held on April 30 at the Needham Research Institute. The workshop was chaired by Dr. Vimalin Rujivacharakul, an Andrew W. Mellon Fellow at the Needham, and the workshop's convener. Speakers included Prof. Dorothy Ko (Barnard College-Columbia University, USA), Prof. Haun Saussy (Yale University, USA), Prof. Hans van de Ven (University of Cambridge), Dr. Stacey Pierson (School of Oriental and African Studies), and Dr. Rujivacharakul (University of Delaware, USA). The workshop addressed the problematic of Chinese material culture seen from the aspects of art history, material culture studies, literature, and socioeconomic history.

Prof. Ko opened the workshop with a splendid presentation on the history and practice of rock collecting, in particular ink-stones, in which she also generously allowed the audience to see and touch some of the rare carved rocks from her own collection so that the audience could gain direct appreciation of the objects' materiality. Dr. Pierson's presentation on the collecting of Chinese porcelains in the U.K. showed how the earliest texts of the subject were translated from Chinese into English and the ways in which major collectors such as Sir Percival David shaped the British understanding of China's most valuable collectible objects. Prof. Hans van de Ven presented his study of the Chinese customs and demonstrated the methods by which customs regulations in China controlled the flow of goods from abroad, in this particular case through the Customs house at Wuhu on the Yangtze River.



Dr. Rujivacharakul introduced alternative understanding of things in Chinese perspectives. Things, she argued, were not equivalent to physical materials, and materiality of things in Chinese thinking could thus also be appreciated in a non-material entity. She examined Hu Shi's discourse of things in Republican China,

comparing Hu's definition of *wu* 物 to that of other philosophers, both Chinese and European, and the complex connection between things and materiality in Chinese studies. Prof. Saussy followed up on the materiality of poetry, examining the construction of rhyme and the Chinese methods of materializing human feelings by using symbolism and metaphorical figures to link abstract imagination with life experience and known objects.

A lively discussion followed, during which provocative questions were asked. It was agreed that, in the realm of materiality and Chinese Studies, this was one of the most interesting and engaging events to be held in recent years on either side of the Atlantic. The workshop concluded with a cheese and wine reception, and Dr. Rujivacharakul expressed her thanks to Professor Cullen, Susan Bennett and John Moffett for enabling the workshop to materialize!

Library News

With the completion in recent years of the on-line cataloguing of our book collection and Joseph Needham's SCC archives (see Newsletters, New Series 3 and 4), we have recently been working on upgrading the content of our Chinese catalogue records, especially for our rare books, and also hunting through Dr. Needham's enormous collection of offprints for small books and pamphlets that he placed there, in order to catalogue them online. This is something we have wanted to do for many years, since the offprint collection is a treasure trove of interesting and sometimes rare materials. It provides a fascinating insight into the history of the EAHoSL collection, Dr. Needham's voracious desire to collect everything relevant to the task at hand, and to the extraordinary range of contacts he developed in the academic world. We have also been gradually expanding the Library's collection of Japanese and Korean materials, in particular Japanese journals on the history of science. With the help of Professor Tsukahara Togo of Kobe University, we have acquired complete runs of several important journals, such as the *Journal for the History of Science, Japan* (科学史研究) and the *Journal for the Japanese Society for the History of Chemistry* (化学史研究).

In July, I was fortunate enough to be able to attend the 12th International Conference on the History of Science in East Asia, held from July 14-18 at Johns Hopkins University, Baltimore. This is the tri-annual conference of the International Society for the History of East Asian Science, Technology and Medicine, and is thus the most important international event for scholars in our field to meet and interact and an especially good opportunity for me to hear about the latest research and publications. There was an excellent turn-out of nearly 250 scholars from around the world, and it was especially gratifying to see such large contingents from Korea and Japan, many of them young scholars.

Seminars

Our regular Friday text-reading seminar continues to flourish, with an eclectic range of subjects covered reflecting the increasing breadth of interests across East Asian history of the scholars visiting our Institute. Japanese clocks, Western scientific knowledge in Korea, traditional archery in China and records of the transit of Venus of 1874 in Chinese sources have all come under scrutiny, and we are extremely grateful to all those who have participated.

John Moffett