

Needham Research Institute Newsletter

李約瑟研究所通訊

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The Fifth Joseph Needham Memorial Lecture



The 5th Joseph Needham Memorial Lecture, sponsored by the Jing Brand Co. Ltd., China, took place at the Riley Auditorium, Clare College on Friday, 4 November, and attracted a large audience from both academia and the public. The lecture “*The craft of mud-making: cropscales, time and history*”, was delivered by Professor Francesca Bray, Emerita Professor of Social Anthropology at the University of Edinburgh. In her lecture, Professor Bray illustrated the importance of timing in the technical manipulation of matter using China’s long tradition of agricultural writing. She offered some reflections on mud as a useful medium for historians of technology and science to think about the plural temporalities of material practices, including how short-span technical processes and rhythms might be woven into the mesh of history. The event was chaired by Professor Roel Sterckx, Joseph Needham Professor of Chinese History, Science and Civilization of the University of Cambridge, and Fellow of Clare College.

Reflections on the life and achievements of Dorothy Moyle Needham, FRS

Funded by the Cambridge University Press & Assessment University Collaboration Budget Funding Initiative 2022, this workshop was held on Friday 16 September at the NRI. Involving members of the Institute and scholars from the University of Cambridge and elsewhere, it was chaired by our Trustee Mary Augusta Brazelton (Dept. of History and Philosophy of Science). Speakers included Patricia Fara (Clare College), Evan Ward (Department of History, Brigham Young University, USA), Rosalind Grooms (Archivist, CUP&A and NRI), Robin Hesketh (Department of Biochemistry), Gordon Barrett (Faculty of History, University of Oxford) and Gregory Blue (Centre for Global Studies, University of Victoria, Canada).

Pictured right: Dr Gordon Barrett



Attended by 75 people - 35 in person and 40 by Zoom - this was, we believe, the first ever academic workshop to be held about Dr Dorothy Moyle Needham, with topics covering women in science in the early C20th, influences on her early life, archives relating to her life and work, her engagement with China, and the significance of her work on muscle biochemistry. It concluded with some personal reflections on her life and personality. A schedule of the workshop with titles of the talks is available on our website, and a collection of the papers presented is also under preparation.

Workshop: Science in the Forest, Science in the Past III



The third conference on “*Science in the Forest, Science in the Past*” took place at the Institute from 9th to 11th June 2022. The event was organised by Professor Sir Geoffrey Lloyd and colleagues, and was sponsored by the Needham Research Institute with additional generous support from the Cambridge University departments of Classics, History and Philosophy of Science and Social Anthropology, King’s College London and the Royal Anthropological Institution. The event was attended by more than twenty scholars, including leading experts from a wide range of disciplines covering the history and philosophy of science, social anthropology, sinology, Greco-Roman classics and computer sciences.



Some twenty hours of wide-ranging discussion were recorded and will be made available to participants for the purposes of revising their papers for eventual publication in a Special Number of *Interdisciplinary Science Reviews*.

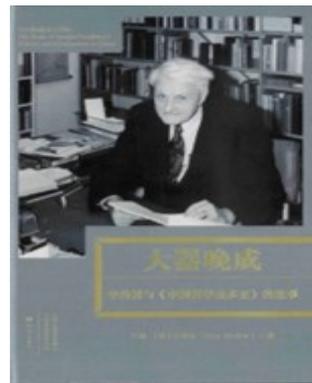
Text-Reading Seminars

We have been pleased to resume our in-person seminars, with a varied programme co-ordinated by Jingyi Jenny Zhao and John Moffett. The seminars covered a wide range of topics and time periods and were well attended by an interdisciplinary audience. Subjects included a comparative seminar on health

and well-being in the Greco-Roman world and early China, a text-reading of the *Qi min yaoshu* 齊民要術 which featured advice on raising chickens, the history of wheat in the Han Dynasty, reflections on mapping in China, some challenges in teaching early modern Chinese, ghostly apparitions and supernatural photography in the *Lianhuanhua The Shade* (1981), and pictorial Hagiographies of the Daoist Patriarch Xu Xun in the Ming Dynasty. The last seminar of the Term introduced the audience to a new book on mining technologies and energy regimes in industrial East Asia.

New Publications

In September a new book was published in China about Dr. Needham and the production of *Science and Civilisation in China*. Written in Chinese by NRI Research Associate Wang Xiao 王晓, with input from the Institute’s Librarian, John Moffett, 大器晚成: 李约瑟与”中国科学技术史“的故事 / *Not Built in a Day: The Story of Joseph Needham’s Science and Civilisation in China* (大象出版社, 2022),



delves into the research framework, production and publishing of the early volumes of *SCC*. It focusses on the ways in which Dr Needham marshalled the vast amount of information required to write the volumes, his working practices with his chief collaborators, in particular Wang Ling, and the extraordinarily innovative ways in which editors and print workers at Cambridge University Press responded to the challenges of producing such large and complex volumes.

Also hot off the press are two new volumes in our *Needham Research Institute Series*, published by Routledge. *Asian Medical Industries: Contemporary Perspectives on Traditional Pharmaceuticals*, edited by Stephan Kloos and Calum Blaikie (2022), is a collection of 10 essays on various aspects of the Traditional Chinese Medicine, Kanpo, Ayurveda and Sowa Rigpa industries.

The Chinese Astronomical Bureau, 1620-1859: Lineages, Bureaucracy and Technical Expertise by Ping-Ying Cheng (2022), offers a new insight into the Chinese imperial Astronomical Bureau, which for two millennia observed, recorded, interpreted and predicted the movements of the celestial bodies, tracing the rise and fall of more than thirty hereditary families serving at the Bureau during late Imperial China.

We record our gratitude to the series editor, our Emeritus Director Professor Christopher Cullen, for his meticulous work in seeing these volumes through to publication.

We are also delighted to report that long-term associate of the Institute, Dr. Gordon Barrett, who appears elsewhere in this newsletter, has had his first book published: *China’s Cold War Science Diplomacy* (Cambridge University Press, 2022) .

Dinner party in honour of Dr. Wu Huiyi, former ISF Fellow



On Friday 28th October, friends and colleagues attended a dinner held at Robinson College in honour of Dr. Wu Huiyi, former ISF Fellow at the Institute (2013—2021). Now happily living in France, where she holds a tenured position at CNRS, Paris, we are delighted that Huiyi will retain her links with the Institute as a Research Associate and we look forward to welcoming her back on future visits to the NRI. *Above: Huiyi, centre front row.*

Continuation of Archivist's contract

As our Wellcome Project draws to a close (see p. 4), we are delighted to announce that, thanks to generous support from the Joseph Needham Foundation for Science and Civilisation (Hong Kong), we will be able to keep our experienced archivist, Dr. Rosalind Grooms, working here 2 days per week for a further 2 years from March 2023. Ros will begin the monumental task of appraising and cataloguing the large number of legacy files, in particular those concerning the establishment and work of the East Asian History of Science Trust, and fundraising for support of the SCC project and the building of the NRI.

Right: Dr Grooms surveys the task ahead.



Fellows and Visitors from October 2022

Since the beginning of October 2022, the Institute has welcomed the following scholars: Dr. Li Haijing, CSC visiting scholar, Zhejiang University of Water Resources and Electric Power; Dr. Li Na, CSC visiting scholar, Nanjing Forestry University; Professor Zhao Guozhuang, Jing Brand (Tianyoude) Fellow, 2022-2023, Southwest University; Dr. Jose Canton-Alvarez, HPY Fellow, 2022-2023, University of Lodz; Dr. Stephen Whiteman, visiting scholar, Courtauld Institute of Art; Dr. Brian Lander, Li Foundation Fellow (USA), 2022-2023, Brown University; Dr. Flavia Xi Fang, HPY Fellow, 2022-2023, University of Cambridge; Dr. Erling Agoey, SYK Fellow, 2022-2023; University of Oslo; Dr. Huang Huang, Li Foundation Fellow (East Asia), 2022-2023, Anhui University. They join our other scholars presently working at the Institute: Dr. Arthur Harris, Lloyd-Dan David Fellow, 2021-2024; Dr. Jingyi Jenny Zhao, ISF (HK) Fellow, 2021-2024; YU Jia, PhD student HPS, University of Cambridge; Dr. Sally Church, Research Associate.

It is very pleasing indeed to see a return to the Institute's usual academic activities and to be able to welcome visitors.

Donations to the Ho Peng Yoke Fellowship Fund

We are delighted to record the generosity of former scholars, friends and supporters who have contributed to the Fellowship Fund, established to commemorate our former Director, Professor Ho Peng Yoke (1989-2002). The Fund supports a fellowship for post-doctoral scholars researching the history of science and technology in China. Details of the application process can be found on our website.

More than 80 people have made donations totalling £50,000 to the Fund over the past four years. Recent donors include Dr Li Haijing (Zhejiang University of Water Resources and Electric Power), Dr Huang Junbao, and Dr Shuanglin Chen, to whom we express our thanks.

Donations may be made via the PayPal button on the Institute's website.

Wellcome Trust Project Grant

Throughout the year work continued apace on the project, now due for completion by March 2023 thanks to an extension from the Wellcome Trust to grant-holders due to the disruption caused by the pandemic. Project staff Ros, Sally and John devoted considerable time and effort to the Dorothy Moyle Needham Workshop and Open Day described elsewhere, in particular to the creation of 9 exhibition banners for the events. The photographs, notebooks, and letters relating to Joseph Needham's visit to China and North Korea in 1952 are all now available on the Cambridge Digital Library, and work goes on preparing similar material for the visit to China by Joseph in 1958, and by both Dorothy and Joseph in 1964. Ros has also put a considerable amount of time into cataloguing a rich variety of items, such as miscellaneous objects, correspondence and other documents, that have emerged from diverse locations (cupboards, tucked into library books or desk draws, etc) over the years. These include, for instance, JN's driver's licence (pictured), issued to him by the Chinese government in 1943. There has also been a great deal of sorting, listing and moving to archival folders of photographs of the Needhams' travels, friends and academic visitors to the NRI, led by one of our volunteers, Sarah Stanton. We are, once again, extremely grateful to all the volunteers who have contributed to the project during 2022, who include Alice Dong, Donovan Cowling-Jones and Johanna Ward. We are currently preparing a full report on the project and will make this available when completed.



Pictured: Joseph Needham's Chinese driver's licence

Open Cambridge Event

The Dorothy Moyle Needham workshop (see p.1) was followed on Saturday 17 September by an Open Cambridge event with morning and afternoon sessions open to the general public featuring the life and work of Dorothy Needham. The sessions included talks by Gordon Barrett (University of Oxford) and John Moffett (NRI Librarian), followed by a tour of the building. Both sessions were almost fully booked (30 places each session). For both events, NRI staff had prepared 6 stand-alone banners celebrating Dr Dorothy Needham's biochemistry work, visits to China and roles supporting women within the University of Cambridge, as well as an exhibition of photographs and objects relating to her life, and a selection of her paintings.

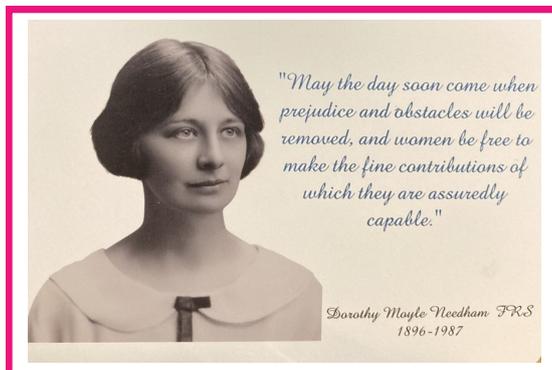


Members of the public viewing the exhibition



Above: Jianjun Mei (Director), Rosamond Goringe (niece), Tom Goringe (great-nephew), Rosalind Grooms (Archivist), Gordon Barrett

A webpage about Dorothy with suggested further reading was created and is available on our website. Mugs and postcards featuring a photograph of Dorothy Moyle Needham and her Chinese wartime name-card were designed for the event by Sue Bennett.



We were especially delighted that members of Dorothy Moyle Needham's family (descendants of her brother) were able to attend. We received very favourable feedback, and a common refrain from those attending the events was "Why had I not heard of her before!" We are very pleased to have been able to put that right.

OBITUARY: Professor Nathan Sivin 11 May 1931—24 June 2022

Nathan's passing earlier this year at the age of 91 brought to a close nearly 60 years of unstinting friendship and support for Joseph Needham and this Institute. The first indication of communication between these two great scholars in our archive is a letter from Nathan to JN dated 8 March 1963 concerning his translation of an early alchemical text. It was written while he was on board a ship off the coast of Africa on his way back to the US from Singapore, where he had spent time studying with Professor Ho Peng Yoke. Though almost from the start he and Joseph disagreed fundamentally in approach and interpretation on many aspects of the fields of scholarship they shared, their mutual respect and support never wavered. Nathan's contributions to the *Science and Civilisation in China* project were considerable, providing a section on the theoretical background of elixir alchemy in Volume 5 Part 4 (1980) and editing Volume 6 Part 6 on medicine (2000). Equally significantly, from the 1980s until 2003 as a member and then chairman of the East Asian History of Science, Inc., known to us here as the New York Trust, he was very active in raising funds to support the SCC project, the building of the Institute, and ensuring that subventions were provided to help in our running expenses. Indeed, generations of scholars using our library owe him a particular debt of gratitude, as in 1993 as chairman of the New York Trust he initiated an annual grant to support the purchase of new books that lasted until 2000 and totalled more than £54,000. His encouragement, devotion to the field, and penetrating scholarship will be sorely missed.

Nathan Sivin: personal reflections of an intellectual Odyssey

G.E.R. Lloyd

Although Nathan made regular visits to the NRI throughout the 1980s, that was generally during the summer months when I was away in our remote retreat in the mountains of southern Spain. So I only met him after my first extended lecturing trip to the PRC in 1987. By then I was heavily engaged in the series of studies that became *Demystifying Mentalities* (Cambridge University Press 1990). That book contained an extended critique of the usefulness of the then still quite popular notion that a culture's world-view reflected or was even determined by the 'mentality' of the people concerned. The final chapter tests the validity of such an idea in the context of our understanding of Greco-Roman antiquity on the one hand and Qin-Han China on the other, where my decisive negative conclusion was that in that context invoking 'mentalities' was not just unhelpful but positively misleading.

Nathan had of course been doing his own debunking of flawed assumptions about Chinese thought, in essays examining the confusions packed into the notions of Daoism or Daoist, or exposing the exaggerations inherent in comparisons between the Ji-Xia so-called Academy and Plato's school of that name. So when I sent him the draft of my final chapter he greeted it with generous enthusiasm, pointed to several errors, and suggested I postponed publication so that we could join forces and collaborate on a more sustained examination of the problem. That was not possible, I explained, since the book was already in production with CUP. But we did begin that more substantial collaboration that lasted more than a decade and ended with *The Way and the Word* (Yale University Press 2002).

Working with Nathan throughout that book's gestation was an exhilarating experience, though it could be an exasperating one. That was partly because we wavered a good deal about the scope of our project. Was this to be a succinct popular guide (Nathan occasionally fantasised about it being the sort of book you would find in airport bookshops)? Or were we to aim for

something far more comprehensive (where of course *Science and Civilisation in China* served as a daunting model)? Eventually we settled on something in between, where we anticipated and got criticisms from those who would have preferred one or other of those alternatives.

Yet what kept us going were a couple of shared methodological principles, one negative and one positive. The negative one was dissatisfaction with the thought that any one culture can or should provide the template for understanding another (as so often when Chinese achievements were evaluated against expectations generated by Western experiences). But more positively we insisted that what we were dealing with was not just the intellectual, social and institutional dimensions of the inquiries we were interested in, but the interactions that unite them all. As we pointed out (*Way and the Word*: 3) that was not a new idea. But Nathan it was who now coined the expression 'cultural manifold' to identify it.

I was privileged to work with such an original and demanding scholar, a marvellously patient teacher of pupils and colleagues alike.



Photo: Nathan speaking at "The Way and the Word" Workshop, July 2000



Photo: Nathan and his wife Carol dining in Cambridge with Joseph, Dorothy and Gwei-Djen, early 1980s

Dr. S. T. Lee (Lee Seng Tee, 李成智, 16 April 1923 – 29 July 2022)

Dr. S. T. Lee, a well-known Singaporean businessman and philanthropist, passed away on 29 July 2022. Dr. Lee's generous annual donations for many years from the early 1990s onwards played an essential role in the consolidation and development of our Institute and its Library. This long-standing contribution was formally and permanently acknowledged by the naming of a wing of our Institute's building as the S.T. Lee Wing in February 2013. Without Dr. Lee's concern for and commitment to the Institute and its work, it would not be the thriving centre for research and cross-cultural understanding that it is today. Dr. Lee will be remembered with gratitude and fondness by all of us at the Institute for many years to come and we express our heartfelt

Right: S.T. Lee accompanied by Lady Youde and Prof. Christopher Cullen in Singapore.



Charlotte Furth (22 January 1934 – 19 June 2022)



All of us at the Needham Research Institute were saddened hear of the passing of Charlotte Furth, Professor Emerita of Chinese history at the University of Southern California, in June. Professor Furth presented our Needham Memorial Lecture "Gender and Science in

China's Medical History" in the Bateman Auditorium, Gonville and Caius College in June 2000. She was a pioneer in the field of medicine, gender and sexuality in late imperial China, and a great mentor and friend to many young scholars who have been part of our community.

Anthony R. Butler (1936 – 2022)

Past attendees at our Friday seminar series here may remember Tony, a chemist at the University of St. Andrews with an interest in Chinese alchemy and *materia medica*. He first became involved with Joseph's research in the late 1970's, co-authoring 3 papers with him on the solubilization of Cinnabar, gold and silver in 6th century Chinese alchemical recipes. Subsequently, he wrote a series of articles for both academic and popular audiences, some with the help of John Moffett. Topics ranged from the uses of saltpetre for treating heart-attack in a recipe found among the Dunhuang manuscripts, to the chemistry of anti-malaria drug artemisinin, via the pharmacology of rhubarb, saffron and, his final contribution to the field, liquorice in Chinese herbal medicine (published in the *Routledge Handbook of Chinese Medicine* [2022]). Tony would travel down to Cambridge a couple of times a year to attend our seminars, always full of enthusiasm for finding ways to bring the chemistry underlying Chinese *materia medica* out of the laboratory to a wider audience with his characteristic erudition, wit and sensitivity.

Wang Siming (王思明, 1961 – 2022)

Professor Wang Siming, dean of the School of Humanities and Social Sciences of Nanjing Agricultural University and vice president of the Chinese Society for the History of Science and Technology, died following a short illness on January 5, 2022. Professor Wang made an outstanding contribution to the study of Chinese agricultural history and technological exchanges between China and foreign countries. We express our deepest condolences to Professor Wang's family and colleagues.



Photo: Tony Butler with Joseph Needham, Lu Gwei-Djen and R. C. Glidewell at the chemistry laboratory, Purdie Building, University of St. Andrews, 14th October 1980.

