

SCIENCE MUSEUM GROUP

INTERNATIONAL WORKSHOP

CHINESE SCIENCE, TECHNOLOGY AND MEDICINE CULTURES, HISTORIES AND GLOBAL CONNECTIONS

DATES

3–4 June 2018

VENUE

Dana Studio

Dana Research Centre and Library

Science Museum

165 Queen's Gate

London SW7 5HD

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FOREWORD

INTERNATIONAL COLLABORATION ENRICHES OUR PROGRAMMES IN THE UK BY BRINGING IN NEW ARTEFACTS AND INSIGHTS. IN THE WIDER CONTEXT, IT PROMOTES UNDERSTANDING AND COOPERATION BETWEEN NATIONS.

Science Museum Group, Inspiring Futures: Strategic Priorities 2017–2030

While art and cultural history collections have long represented a global narrative, British science collections have historically portrayed a western-centric or nationalistic perspective on the history of science, technology and medicine. Through collaborative and international research, collecting and exhibitions, the Science Museum Group museums are striving to offer visitors an international outlook on the history of science, technology and medicine. In recent years the Science Museum has presented major exhibitions with international partners in countries including Russia (**Cosmonauts: Birth of the Space Age**, 2015–2016) and India (**Illuminating India Season**, 2017–2018). In addition, we have established a number of new partnerships in Brazil, Japan, China, South Korea and Europe.

China is a clear priority for the Science Museum Group 2017–2030. We have a range of UK-China collaborative projects planned for the coming years, leading up to a blockbuster exhibition exploring science, technology and medicine in China at the Science Museum in 2023, with plans of touring it to other museums in the UK, other European countries and perhaps even museums in China. The international workshop **Chinese Science, Technology and Medicine: Cultures, Histories and Global Connections** was the Group's first event for academics and museum professionals to share knowledge, to build relationships and to gain new perspectives and insights into Chinese science, technology and medicine. The key ambitions for the international workshop were:

- To build relationships between people and organisations
- To achieve a better understanding of shared expertise
- To open up the Science Museum Group's thinking about the exhibition exploring science, technology and medicine in China planned for display in London in 2023
- To disseminate knowledge and ideas to a wide audience by documenting the individual presentations and by publishing the workshop report on our website

More than 50 delegates from 15 cities and 5 countries attended the first Science Museum Group international workshop **Chinese Science, Technology and Medicine: Cultures, Histories and Global Connections**, which took place from 3 to 4 June 2018 at the Science Museum, London. The workshop covered four key themes:

- Museums, archives, exhibitions and international collaborations
- Chinese medicine, botany and ethnography

- Science, technology and medicine in late imperial China
- Chinese science and technology in modern and contemporary periods

I would like to thank our UK-China Rutherford Curatorial Research Fellows Selena Yuan and Jing Zhu for convening this workshop as part of their residencies in our Research & Public History as well as Curatorial departments at the Science Museum. I am grateful to all the presenters and chairs for so generously having followed our invitation to join us in London for two days. Finally, we would like to thank the Department for Business, Energy & Industrial Strategy for funding the workshop.

As you will see, this report provides insights into the thematic richness of the workshop and the interest of the individual papers and discussions which were shared over the two-day workshop.

Dr Tilly Blyth
Head of Collections and Principal Curator

SUNDAY 3 JUNE

SPEAKERS

CHRISTOPHER CULLEN

Emeritus Director, Needham Research Institute;
Emeritus Fellow of Darwin College, University of Cambridge

FA-TI FAN

Associate Professor, Department of History,
Binghamton University, New York

SEUNG-JOON LEE

Associate Professor, Department of History, National University of Singapore;
Visiting Scholar Needham Research Institute, Cambridge

Christopher Cullen, **The Missing Object: Putting Things back into Research in the History of Science in Pre-Modern East Asia**

"TECHNICAL HISTORIES OF ASTRONOMY CAN END UP BEING A MODERN EXPERT TALKING ABOUT AN ANCIENT EXPERT. BUT THERE IS MUCH MORE TO THE SKY THAN THE EXPERT GAZE. HOW DO THESE ABSTRACTIONS COME FROM THE REALITY OF HUMAN ENCOUNTERS GAZING AT THE SKY?"

Christopher Cullen argued that museum exhibitions should go beyond 'thin description' (often with abstract terms on labels, and descriptions focusing on functionality and scientific terminologies) and try to provide 'thick description' (that covers physical, social, economic and intellectual processes and relationships) so as to engage the public and demonstrate how technologies work. He introduces two cases to illustrate his point: his experience of acting as a naked-eye sky-watcher in the ancient Chinese tradition, using simple instrumentation as pole gnomons and a water clock, and his research on the 'Geneva sphere', a seventeenth-century Japanese astronomical instrument designed to be enjoyed by non-experts. Cullen believed that by presenting rich histories which engage deeply with objects and their multifaceted meanings, museums can help rediscover the complex reality of objects in human society.

Fa-Ti Fan, **Collecting Nature in Late Imperial and Modern China**

"HOW DOES THE METHOD OF CONSUMING INFORMATION ABOUT THE NATURAL WORLD CHANGE THE WAY THE NATURAL WORLD IS UNDERSTOOD?"

Fa-ti Fan interrogated the cultural and personal nature of how we observe, interpret and represent objects of nature by comparing Chinese and European traditions of collecting and displaying objects of nature and of science, technology, and medicine, from late imperial China to the early Peoples Republic of China. He questioned shifting meanings of 'objects of nature' across time and cultures, considering the many ways people have sought to capture, preserve and collect objects of nature, from naming and listing to defining and categorising to fit into the structure of our own cosmologies.

He illustrated that meaning is in the 'eye of the beholder' by showing opposing perspectives on the same species, for example a natural history record of a flying fish written by a well-educated Chinese person in contrast to the illustrations of a Chinese fisherman. He also explored the gap between understanding from reading texts (textual understanding) in contrast to having seen something in situ (visual understanding) by showing illustrations of species drawn by somebody who had never seen them and drawn by somebody who had. Finally, Fa-ti Fan discussed the emergence of natural history museums in China and questioned how people responded to them. Fa-ti Fan therefore raises a series of unsolved questions: what and why Chinese people collected (in particular in relation to objects from nature)? What is meant by 'nature' by the diversity of peoples in China throughout different time periods? How have they represented nature?

Seung-Joon Lee, **Science, Food and Energy in Twentieth Century China**

"FOOD IS A DIFFICULT TOPIC FOR SCIENTISTS TO STUDY AS IT IS DIFFICULT TO QUANTIFY. FROM PALATABILITY, TO EATING HABITS, FOOD IS PERSONAL – MAKING IT DIFFICULT TO STUDY ACROSS THE WORLD."

Seung-Joon Lee explored the role of food, energy and nutrition science in the building of modern nation states. He argued that prior to industrialisation in China, the primary form of energy was food energy, powering the work of human labour and subsequently shaping 'the worker's body' as a symbol of industrial power. He focused on the factory canteen as a key site where management and state power sought to maximise labour productivity as a means to make the Chinese nation strong. Literature and propaganda which disseminated ideas about nutrition science and eating to the general population were discussed, as well as a consideration of who was seen to be deserving of the most food - namely soldiers and labourers. The impact of western ideas on Chinese public health regimes on nutrition was demonstrated, such as the influence of the American universities of Yale and Harvard, and through books such as *My Philosophy of Industry* by industrialist Henry Ford. From diet management and workplace canteens to food shortages and rationing, Seung-Joon's paper demonstrated 'nutritionism' as ideological science and the potential impact state power can have on individual bodies.

Day 1 concluded with a tour of Science Museum galleries including Making of the Modern World, Information Age and Mathematics: The Winton Gallery led by Alison Boyle and Tilly Blyth.

MONDAY 4 JUNE: MUSEUMS, ARCHIVES, EXHIBITIONS AND INTERNATIONAL COLLABORATIONS

SPEAKERS

JESSICA HARRISON-HALL

Head, China and Vietnam, Asia Department, The British Museum

BRENDAN CORMIER

Lead Curator of 20th and 21st Century Design for the Shekou Partnership, Victoria and Albert Museum

CORINNA GARDNER

Senior Curator of Design and Digital at the Victoria and Albert Museum

Jessica Harrison-Hall, **Displaying Historic Chinese Technology**

"A SENSE OF GEOGRAPHICAL DIVERSITY AND SCALE WAS AN IMPORTANT PART OF OUR APPROACH TO THE NEW GALLERY."

Jessica Harrison-Hall introduced the new Sir Joseph Hotung Gallery for China and South Asia, which opened at the British Museum in 2018 following its second refurbishment. The gallery explores the history of China through visual art and material culture dating from the Neolithic to the present day. Jessica invited listeners to explore the new gallery through the lens of science and technologies, including: coil-made and wheel-made pottery, jade production, architecture, bronze casting, writing, lacquer production, carved sculptures, ceramics, food technology, painting and printing. She discussed the challenge of arranging the exhibition in the gallery's original listed Edwardian showcases and the difficulty of covering a long history of China and its geographical diversity. Harrison-Hall talked about how the display also integrates contemporary artefacts (and works of art) to demonstrate the connection between contemporary and historic periods (e.g. Caroline Cheng's butterfly dress made from 25,000 hand-made porcelain butterflies created by craftsmen in Jingdezhen). She also drew on the themes of the role of donors and the power of money behind technological productions, examining transnational and international exchanges, transfers and exportation of technology through objects (such as the transfer of glazing techniques) and the import of technologies such as clocks, watches and automaton.

Brendan Cormier, **Exploring Unidentified Acts of Design in Shenzhen**

"WHERE DOES DESIGN TAKE PLACE IN THE PEARL RIVER DELTA? HOW DOES DESIGN MANIFEST ITSELF IN A REGION THAT IS SO INTENSELY INVESTED IN LOW-COST PRODUCTION THAT IT HAS BEEN DUBBED THE 'FACTORY OF THE WORLD'?"

Brendan Cormier introduced his recent work with the V&A on Unidentified Acts of Design at the Shenzhen Urbanism BiCity Biennale (2015) and the V&A Gallery at Design Society in Shenzhen (2017). He discussed their approach which looked for acts of design and making in unexpected places, asking questions such as 'where is making happening in the city today?', 'who are the actors?' and 'what are the acts of design and making?' to shift from 'made in China' to 'created in China'. The main aim of the project was to examine design in spaces beyond the designer's studio. He presented eight case studies and talked about the processes of finding narratives, focusing on doing fieldwork around the city to find makers, interviewing them and co-creating images with them in order to present a 'high res' story of China.

Corinna Gardner, **Rapid Response Collecting at the V&A**

"WE NEED TO BE ACTIVE LISTENERS AND TAKE A RICHER, BROADER, QUESTIONING APPROACH TO TOMORROW'S WORLD."

Corinna Gardner introduced the V&A's approach to 'rapid response' collecting, which acquires objects of public discourse into the museum's permanent collection. The collecting approach is to deepen current understanding of design and the modern world, and to question: what is design today? What does it mean to collect? She shared examples, such as the Flappy Bird app, a WeChat soft toy and a Pussy Power hat and gave an insight into the varied response from the public and media. Gardner also discussed a project in Shenzhen which invited residents to create a portrait of their city through objects. She touched on the aim of engaging in popular discussion and debate, responding to pressing social issues related to design, the overlap between arts and industry as well as the tendency and value of contemporary design. Gardner mentioned that 'rapid response' collecting actively seeks suggestions of objects both from staff working at the museum and from the general public.

CHINESE MEDICINE, BOTANY AND ETHNOGRAPHY

SPEAKERS

ANNE GERRITSEN

Professor, Department of History, University of Warwick; Kikkoman Chair for the Study of Asia-Europe Intercultural Dynamics, Leiden University

JORDAN GOODMAN

Honorary Research Associate, Department of Science and Technology Studies, University College London

XI GAO

Professor of History and Medical History, Department of History, Fudan University

JING ZHU

UK-China Rutherford Research Fellow, Science Museum, Co-convener of the workshop

Anne Gerritsen, **English Bodies, Chinese Rhubarb: Representations of China through Botanical Knowledge**

"THE ASSOCIATION BETWEEN RHUBARB AND CHINA MORE GENERALLY IN THE WEST MADE IT DIFFICULT TO SELL CHINESE RHUBARB, DUE TO PEOPLES' PREJUDICES."

Anne Gerritsen explored the western interest in Chinese rhubarb as *materia medica* from the seventeenth to nineteenth centuries. She argued that throughout this period there were three phases of viewing Chinese rhubarb and the separate parts of the plants in the West, which shifted due to political developments over time: firstly, rhubarb was represented as fruitful and productive with the Chinese viewed as an authority on growing and cultivating rhubarb and understanding its medicinal properties. Next, as interest in the West grew, rhubarb became a commodity and simultaneously became disassociated from China. Finally, rhubarb was viewed as a useful product which can help to flush out harmful substances from the body. However, in this final phase the link with China became problematic and was increasingly avoided, with consumers opting for 'Turkish rhubarb' instead (despite there being no real difference in quality). By focusing on the production, trade and consumption of rhubarb, Gerritsen demonstrated the complex interrelations between cultural prejudices and patterns of consumption.

Jordan Goodman, **Making Art and Botany in Canton: John Bradby Blake and his 'Compleat Chinensis' (1767–1773)**

"...A UNIQUE CROSS-CULTURAL COLLABORATION BETWEEN AN EAST INDIA COMPANY RESIDENT IN CANTON, AT LEAST ONE CHINESE ARTIST, AN UNKNOWN NUMBER OF GARDENERS AND A BILINGUAL CHINESE INTERMEDIARY."

Jordan Goodman presented his research done in collaboration with Josepha Richard (University of Bristol) and Peter Crane (Oak Spring Garden Foundation) in conjunction with the John Bradby Blake Project. He told the fascinating story of John Bradby Blake (born in 1745), an East India Company merchant (from 1766 when he went to Canton to trade for tea) and artist/horticulturist/botanist who partnered with a Chinese artist and gardener to produce scientific watercolour images of China's flora and fauna. Blake also grew many plants himself to try and further understand their habitats. Unfortunately, almost no record of the Chinese contributor can be found. Around 1774, the work of Bradby Blake and his Chinese collaborator were sent to London including some two hundred remarkable Anglo-Chinese plant drawings which were coloured, scientifically accurate and reflecting the latest Linnaean principles – together with sundry accompanying notes. Though never published, the work is thought to be the first ever British-Sino collaborative botanical book. This 'unexpectedness' in bottom-up relationships and coproduction also reflected the shifting identities of objects.

Xi Gao, **The Dual Founding Ideal of Museum of Chinese Medicine**

"THE CHINESE HISTORY OF MEDICINE MUSEUM WAS ONE OF THE EARLIEST PUBLIC MUSEUMS ESTABLISHED BY THE CHINESE."

Xi Gao talked about Chinese Museums of Chinese Medicine, focusing in particular on the Shanghai Museum of Traditional Chinese Medicine (TCM) which she has visited annually with her university students for over three decades. Using the Shanghai Museum of TCM as a case study, Xi Gao traced the evolution of Museums of TCM in China, from their introduction by Christian missionaries in the nineteenth century to the present day. Xi Gao argued that there have been three stages in the history of Chinese museums of TCM: before 1949, museums traced the history of TCM and sought to find connections between Chinese traditional medicine and western medicine. In the 1950s, Chinese museums of TCM shifted to a more politically charged approach, celebrating the national achievement of Chinese medicine and its contribution to the world. Finally, Xi Gao suggested that since 2000 there has been a move to presenting TCM and western science as points on a path 'towards modern life'. Through these three key phases, Xi Gao tracked the changing interpretation of TCM over the past 70 years. Finally, Xi Gao introduced the bronze acupuncture figure as an iconic artefact of TCM, and the debates of its origins, ownership, replicas and object biography reflecting the tension between different stakeholders from advocates of TCM to its high technology applications.

Jing Zhu, **Photographing Bodies of Non-Han in the South-West of China in the 1930s and 1940s: Anthropometry, Museum Collections and Gender**

"THE VISUAL REPRESENTATION OF NON-HAN SUBJECTS IN FESTIVAL CLOTHES WAS A VERY MODERN PHENOMENON CONSTITUTED IN REPUBLICAN CHINA UNDER THE INFLUENCE OF WESTERN SOCIAL DARWINISM, ANTHROPOLOGY AND THE RISE OF MUSEUMS."

Drawing on Miao albums, a genre of ethnographic illustrations depicting the ethnic minorities in the south-west borderland in late imperial China, and ethnographic photography of non-Han in 1930s and 1940s, Jing Zhu examined the visual transformations of representing the bodies of non-Han in different media and in historical epochs. She observed that in Miao albums, generally groups of ethnic minorities, including men, women, the old and children were depicted; while in modern photography, the body of single figures were highlighted, and many photographs were designed to show different aspects of the bodies of non-Han. Jing Zhu explained that such ways of visualising indigenous people were inseparable from anthropometry, technology of body measurements and racial sciences developed in nineteenth-century Europe and America. She also revealed that only very simple and casual clothes of non-Han were represented in Miao albums; whereas images of non-Han women in splendid festival clothes became a very popular genre in republican pictorial periodicals. Jing Zhu argued that it was a modern construction in republican China to represent ethnic minorities in festival costumes. One important reason for the huge number of photographs taken of non-Han people in festive clothing was an interest in the material culture so widely exhibited in museums and other prestigious institutions. The popularity of photographs of festival costumes are reflections of the collection and exhibition of non-Han costumes and other material culture objects, and the mutual constitution of costumes, races and evolutionary theories. Finally, she pointed out that most of the images of non-Han in republican China were young girls, revealing the process of feminising the non-Han in China. Thus, in order to produce a more comprehensive understanding of the productions/ reproductions of ethnographic images, it is significant to investigate the intersections of, among other disciplines, anthropology, museology, gender and politics.

SCIENCE, TECHNOLOGY AND MEDICINE IN LATE IMPERIAL CHINA

SPEAKERS

JOSEPH P MCDERMOTT

Emeritus Reader, Faculty of Asian and Middle Eastern Studies;
St John's College, University of Cambridge

MASATO HASEGAWA

Postdoctoral Fellow, Dept. III, Max Planck Institute
for the History of Science, Berlin

LESLIE DE VRIES

Lecturer, Department of Religious Studies, University of Kent

YUYU DONG

Lecturer, Associate Professor, School of History and Culture of Science,
Shanghai Jiao Tong University

Joseph P McDermott, **Paper-Making and Printing Technologies and their Westward Transmission**

"IT WAS ONLY IN THE EIGHTEENTH CENTURY THAT WESTERNERS LEARNED OF THE CHINESE MOVING TYPE, WHICH WAS DIFFERENT TO THE EUROPEAN VERSION."

Using the history of paper-making and printing technologies as a case study, Joseph McDermott illustrated that the history of the Middle East is crucial to the story of transmission between Europe and Asia. He compared early illustrations showing printing and paper-making in China and Europe. By comparing techniques and equipment he demonstrated the differences between the two traditions. McDermott also questioned who the actors were in the transmission of technologies East to West and West to East: what were the first paper and printed objects to travel between Europe and Asia? Was there resistance? How did people in Europe and China understand and learn about foreign technologies? A number of examples were explored, from a book sent from the Chinese imperial court to the Vatican to the translated texts of Matteo Ricci. However, McDermott concluded that this process cannot be fully understood until historians resolve the lack of evidence from the Middle East about transfer of print between China and Europe.

Leslie de Vries, **Visualising the Formless: A Case Study of Zhao Xianke's 'Thread that Runs through Medicine' (1617?)**

"HOW DO WE KNOW THE BODY? HOW DOES THIS KNOWLEDGE RESULT IN NEW DRUG THERAPIES?"

Leslie de Vries' paper focused on the text *Thread that runs through Medicine* 1617(?) by doctor Zhao Xianke. His work was a popular but much-criticised style of Chinese medical practice in the early Qing period. Leslie explored the fierce critiques of Xianke's work during his lifetime. He then explored how Zhao Xianke's medical approach was received in Vietnam, where he became a national hero of Vietnamese medicine. Ultimately, the case study raised questions about the transfer and interpretation of ideas and practices across East Asia.

Masato Hasegawa, **Transport, Animals and Human Labour in Late Imperial China**

"WE MUST THINK OF THE DIFFERENT MODES OF TRANSPORT IN RELATION TO EACH OTHER – NOT AS ISOLATED TECHNOLOGIES."

Masato Hasegawa examined how people in late imperial China made decisions about which mode of transportation to use when similar technologies were available at the same time. Exploring boats, carts, pack animals and human labour, Hasegawa considered how the topography and climate of a nation and peoples' perceptions of them, whether real or imagined, impacted decisions around movement and transport infrastructures. He concluded that when researching transportation technologies, historians must consider the full spectrum of options which were simultaneously available and the human imagination and decision-making process which lead to the different choice peoples made.

Yuyu Dong, **Knowledge, Administration and Technical Innovation: The Development of the Chinese Water Clock in the Northern Song Dynasty**

"THE NORTHERN SONG DYNASTY ASTRONOMICAL WATER CLOCK MADE BY YAN SU (燕肅), SHEN KUO (沈括) AND SU SONG (蘇頌) ALLOWED MEASUREMENT OF THE PASSAGE OF TIME USING WATER, BUT IT WAS ALSO A SYMBOL OF IMPERIAL POWER."

Yuyu Dong traced the development of Chinese water clock technology from the northern Song dynasty to the Jesuit introduction of mechanical clocks in the seventeenth century. His paper illustrated the interconnectedness of water clocks and human endeavour to understand astronomy and the natural world. Yuyu Dong demonstrated the key role of the government in technological innovation. Using the example of the water clock, he argued that technologies evolve through a state administration with a vested interest in technology and science. Such administrations provided a critical juncture for many 'great Chinese inventions', from gunpowder to firearm techniques.

INTERLUDE

SPEAKER

MICHAEL J CLARK

Associate Member, Centre for the Humanities and Health, King's College London;
UCL China Centre for Health and Humanity

Michael J Clark, **A New Perspective on Chinese Movies:
YiMovi, an Anglo-Chinese Collaborative Web Site for Chinese Medical Humanities and Film**

**"IT WAS ONLY IN THE EIGHTEENTH CENTURY THAT WESTERNERS LEARNED OF
THE CHINESE MOVING TYPE, WHICH WAS DIFFERENT TO THE EUROPEAN VERSION."**

Michael J Clark presented the new resource YiMovi, a dual-language website designed to facilitate the use of Chinese language films as resources for teaching, learning and public engagement in the Medical Humanities. Clark discussed the development of the project, which is a collaboration between an international group of scholars, based principally in University College London, King's College London, and Peking University Institute for Medical Humanities (funded by

Wellcome Trust). He discussed a process of experimentation in how Chinese films could be integrated into the teaching of medical humanities (with a focus on China). Films were curated into categories of multiple themes, some of which are not explicitly medical (old age, dying, cross-generation relationships). His introduction was followed by the showing of a selection of film extracts.

<https://www.yimovi.com/en>

CHINESE SCIENCE AND TECHNOLOGY IN MODERN AND CONTEMPORARY PERIODS

SPEAKERS

**OLIVER BETTS
AND THOMAS SPAIN**

Curators, National Railway Museum

WEIPIN TSAI

Senior Lecturer, Department of History, Royal Holloway, University of London

HAIJING LI

Post-doctoral Researcher, National Academy of Innovation Strategy, Beijing;
Needham Research Institute, Cambridge

Oliver Betts and Thomas Spain, **The Exported Iron Horse: Kenneth Cantlie, China Railways and British Locomotive Construction**

"HOW FAMILIAR ARE OUR VISITORS WITH THE STORY OF MODERN CHINA? WHAT DIFFERENCE CAN THE STORY OF THIS OBJECT MAKE TO PEOPLE TODAY?"

The presentation began with an introduction to the history of a Science Museum Group object held by the National Railway Museum (NRM): the 600 class locomotive No. 607, also known as KF-7. In 1979 the locomotive was presented to the NRM by the Chinese government as a gift from the people of China to the people of Britain. Thomas gave an overview of their existing knowledge of the object's biography, which traverses the histories of China and Britain, based on research in the personal archive material of the locomotive's designer Kenneth Cantlie. Oliver Betts then talked about the gaps in our knowledge of the narrative of this fascinating object, including what happened to the engine after 1938, the stories of the Chinese crew who worked onboard, the relationship between the locomotive and other objects in SMG collections. He also questioned how we should display this complex object story which spans continents and many decades to visitors to NRM. Ultimately, Betts and Spain called for collaboration to complete the story of this remarkable locomotive design.

Weipin Tsai, **The Design of Postal Routes in Relation to Railways in Northern China in the Early Twentieth Century**

"THE RAILWAYS ENABLED A MOVE AWAY FROM THE FOCUS ON THE CENTRE/CAPITAL TOWARDS TREATY PORTS, PROVINCIAL CAPITALS AND INTER-PROVINCE CONNECTIONS AND HIGHWAYS."

Weipin Tsai presented on her use of the China postal working map to study changing distribution of post offices and the expansion of the railways throughout China in the early twentieth century. She covered key competitors to a national post service, expansion strategies and legislation. She also touched on the postal service as a form of soft imperial power, with public education campaigns, branches in local community centres, staff who spoke local dialects and the use of branding seeking to facilitate a sense of connection between the population and the imperial post. Through her research on the expansion of post offices, Tsai traced the growth of the railway network in China.

Haijing Li, **From Defense to Control: The Development of the Approach of Prevention and Control on the Qiantang River (1927–1949)**

"IN THE PERIOD 1927–1949, CHINA HAD SOCIAL STABILITY AND THEREFORE THE NATIONAL ECONOMY WAS ABLE SUPPORT THE RIVER PROJECT."

Haijing Li examined the changing approaches to the Qiantang River project 1927–1949. She analysed the changing perceptions of, and responses to, the river through time, from proposals which sought to defend land and communities from the 'dangerous and destructive power of the tide', to attempts to manipulate the flow of the river. She also touched upon the difference between the Chinese viewpoint of such problems as 'disastrous' and thus requiring power to control them, and the Western view of regarding these as natural problems and thus requiring effort to study the reason behind them. Her paper presented a case study of changing views and solutions to shared problems over time.

SUMMARY OF DISCUSSIONS

There were fruitful and stimulating discussions over the course of the workshop. There were four key themes which emerged during the panel discussions:

THE IMPORTANCE OF REPRESENTING DIFFERENT PERSPECTIVES

Ideas discussed included:

- Representing bottom-up, local perspectives is vitally important, without which histories become hyper-globalised and have little meaning.
- The importance of ‘the meddler’, i.e. the actor who does not act as they are supposed to as instructed by institutional prerogatives, and who acts upon their own expertise and practice, provide important insights into a diversity of knowledge production.
- Regional vs national traditions in different historical and political time periods are important timeframes to understanding developing practices.
- Different values of technologies in different contexts and cultures.
- Use of local people with local knowledge to help manage and understand the terrain of a country – is this a way to access perspectives or history ‘from below’?
- Exploring technologies of major services in daily life – post office, banking, energy provision – to uncover different social and disciplinary perspectives.

EXAMINING THE ROLE OF THE MUSEUM IN SHAPING STORIES AND IDEAS

Ideas discussed included:

- Museum as cultural producer.
- Museums responsible for collecting objects which represent the history of science, technology and medicine have different perspectives and agendas, both between cultures and through time within cultures.
- How can museum displays acknowledge colonial responsibility?

THE INTERPRETATION OF OBJECTS

Ideas discussed included:

- Objects do not have stable meaning, they are shifting entities, they are not immutable records.
- How do Chinese objects of science fit into western categories?
How do western objects of science fit into Chinese categories?
- How are interpretation strategies for UK collections challenged when we focus on objects of Chinese origin?

PROCESSES OF CULTURAL EXCHANGE

Ideas discussed included:

- Transmission of knowledge: how can we study the mobility of knowledge and ideas? Which knowledge is mobile and which is not? Which is fast and which is slow transfer? What is carried? What cannot be carried?
- Do we need a human actor to decide to transmit the knowledge? Is a book or text enough to transfer knowledge between cultures? Or is human agency required for knowledge to travel?