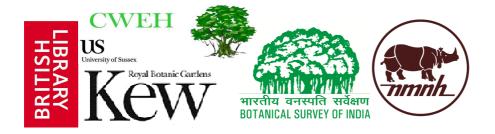
Two exhibitions on the Natural History Heritage of India to be Launched in October, 2016

Collaborative research on the meteorological and botanical history of the Indian Ocean, 1600-1900



Overview

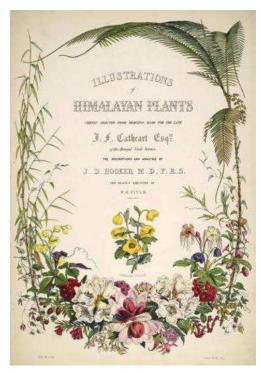
This innovative, interdisciplinary AHRC network project on Indian Natural History collections in Botany and Meteorology has achieved outstanding engagement with a range of non-academic partners in the U.K. and India. It has already demonstrated impact of reach and significance in its ability to highlight new sources to understand environmental and climate change and to reach wider audiences through museum displays and online digital resources.

Initial funding from the Sussex Research Opportunities Fund and the AHRC has led to collaborative work between the Centre for World Environmental History (CWEH) at Sussex with a range of non-academic institutions such as the Royal Botanic Gardens, Kew, (Kew) the British Library (BL), the U.K. Met Office, the World Meteorological Organisation and Indian institutions such as the Botanical Survey of India (BSI), the Forest Research Institute, Dehradun (FRI) the Indian Museum and the National Museum of Natural History (NMNH).

Some of the key network members want to build on knowledge exchange and pathways to impact already undertaken in the funded phase of the original network and have identified a well-defined need for the fruits of their collaboration to be taken to new audiences in India by highlighting the value of historic natural history collections both colonial and indigenous held in the U.K. and India for preserving India's botanical heritage. This will be done through two museum displays, a public conference and a school project.

- Museum display (adapted by Kew from an earlier exhibition) on Hooker, India and the botanical heritage of India in the BSI gallery of the Indian Museum in Kolkata **October 2016-October 2017**
- Museum display organised by the BL on Science and Empire in NMNH in Mysore **October 2016-October 2017**
- an opening public conference in Kolkata with academic and non-academic audiences **October 2016**
- A pilot project to engage two Kolkata schools in understanding the links between Botany, Empire and the historic environment. January 2017- July 2017

The exhibitions represent for the first time a repatriation of botanical knowledge, highlighting the importance of India and Indian botanical collections held both in Britain and India and connects disparate materials through a search of related materials at Indian Institutions. We also plan to deliver impact by changing the culture of holding institutions such as the BSI with regard to the conservation of their natural history holdings and underlining their importance to the wider Kolkata and Mysore public and increasing visitor numbers to the BSI gallery and the NMNH.



Joseph Dalton Hooker, Illustrations of Himalayan Plants, London, 1855

Project History and Collaboration

The Indian Natural History collections are a product of the documentation project of colonial empires: British, French, Dutch and Portuguese. Through our AHRC network on the botanical and meteorological history of the Indian ocean 1500-1900, CWEH is responsible for identifying relevant historical records on environmental and climate change, strengthening academic and non-academic networks, providing online hosting for descriptive accounts of the collections and providing a roadmap for digitising these sources for improved accessibility.

Previous collaborations have included:

- Assisting holding institutions, such as Kew, the British Library and the Natural History Museum to identify important collections like the Nathaniel Wallich collection (www.nmnh.nic.in/nhmwinh.pdf) and establish connections with institutions in South Asia, such as the BSI, Kolkata and the FRI, Dehradun.
- Collaborating with the Kew to create an online digital resource for the Indian letters of Joseph Hooker (<u>www.kew.org/josephhooker</u>).
- Providing expertise on Indian collections in an exhibition at the Natural History Museum, which highlighted the importance of collections at holding institutions, such as Kew, the British Library and the Natural History Museum. <u>http://www.nhm.ac.uk/nature-online/art-nature-imaging/collections/india-collection/history-and-context/index.html.</u>
- Negotiating with the World Meteorological Organisation in Maputo in April, 2014 on the climate heritage of the Indian Ocean and working on the final implementation plan for preserving the climate heritage of the Indian Ocean (<u>http://www.gfcs-climate.org/node/1)</u>.
- We are currently working on a project to map the historic climate archive for the Indian Ocean World and model the climate events in the last 500 years.



The cotton plant. Sketch by Thomas Cussans (1796-1870), Madras Artillery, 1820.

Exhibition 1: Hooker/ India and the Botanical Heritage of India

Joseph Hooker, an eminent botanist, was the Director of Kew (1865-1885) at a time when botany, and in particular the network of botanic gardens centred on Kew, played a major role in the project of British imperialism. Scientists and naturalists in the colonial tropics collected field data on a vast scale from different colonial contexts and visualised links between climate and deforestation, between species protection and land degradation. Hooker travelled extensively in India and was the author of *The Flora of British India* (1872-97) in 12 volumes.

The herbarium specimens he collected in India form an unrivalled source for Indian botany with critical and urgent relevance today in the context of deforestation in the wake of climate and environmental change. The Kolkata exhibition itself will be based on one previously developed in Kew, adapted and augmented with collections from the BSI and other local indigenous collections for example the *Puthi* collection from the Sundarbans. The staging of the Hooker exhibition in Kolkata will expand its original impact by presenting it to an entirely new public and academic audience, while the production of teaching materials in our pilot study with two schools in Kolkata will extend this impact into schools. The launch will also be accompanied by a conference with representatives from the BL, SOAS, Edinburgh Botanic Garden, the BSI, JNU, Oxford University, Vidyasagar University, the Natural History Museum, Kyoto University, Kew, Jadavpur University and Ambedkar University.

CWEH and Kew have previously worked together on the digitisation of Hooker's India correspondence, which is now freely available via the Kew website in fully searchable form. Hooker's collections and work are of major importance to Indian botanical heritage, as well



The Puthi Collection from the Sundarbans

region.

These collections also provide a unique insight into changes in climate and biodiversity and are therefore of extreme importance to contemporary debates over anthropogenic climate change, species loss and habitat destruction. His most prolific collecting was done in India. The Hooker centenary exhibition at Kew in 2011 highlighted some of these themes including that of science and empire.

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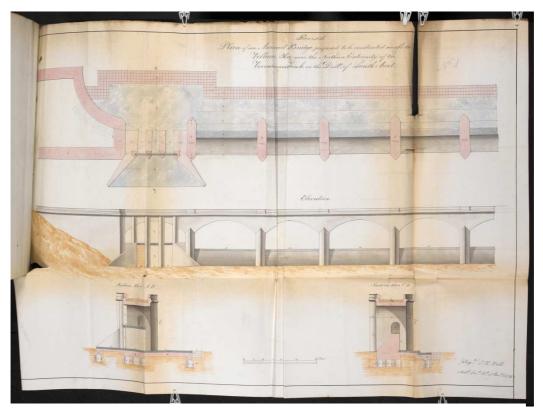
By taking the Kew/Hooker exhibition to Kolkata we are hoping to enhance the impact of the original exhibition by taking it to an Indian audience generating further network and exchange opportunities.

Exhibition 2: Science and Empire

The British Library will produce a facsimile 'pop-up' exhibition, 'Science and Empire' which will be hosted at the National Museum of Natural History in Mysore. Modelled on the Library's successful touring exhibition 'Beyond the Frame: Indian British connections' (2012), the exhibition will comprise nine attractively-designed panels of facsimile materials drawn from the Library's historic collections the India Office Records, private papers, books and manuscripts in Indian languages, and visual materials.

The panels will cover the following themes: forestry; health and disease; irrigation; botany; geology and built environment. Displaying facsimiles of personal diaries and correspondence, government documents, maps, plans, pamphlets, photographs, paintings and drawings, the panels will create a picture of the impact of empire upon the natural and built environment of India over the period of 1700 to 1950 and will depict India's natural heritage.

The Library's holdings in this area are complemented by collections in India. Indian institutions such as the National Archives of India, the FRI, Dehradun will be invited to display original materials from their own collections alongside the panels. The Library has excellent connections with the named institutions, while the British Council will be invited to help arrange the practicalities. The Council facilitated the touring of 'Beyond the Frame' and has already expressed its support for this kind of flexible exhibition, as an effective way of bringing the historical collections of the UK and India to a wider audience. We will have media coverage for the inaugural ceremony in Mysore and a public lecture by representatives from the BL.



Plan for a bridge at the Veeranum Tank, South Arcot district, to control the flow of water into and out of the tank. By Captain Lawford, Civil Engineer. 1844.

Participation of Kolkata Schools

It is proposed that there will be the participation of two schools, Lake Town Government School and the Madahamgram Government Boys School, Kolkata as part of the wider engagement exercise with young people. These schools have been chosen because they are government schools with the vernacular, Bengali as the medium of instruction. The students will be selected from the first two years of secondary school. The school days will involve taking students out to the Kolkata Botanic Garden for 2 field trips one which will include a visit to the Hooker and the Botanical Heritage of India exhibition and the second to the Kolkata Botanic Garden, with a view to exploring the role of both English and native plant collectors, local plant names and India's rich botanical heritage.

The impact will be demonstrated by essays written by the students on the environmental history including the built environment of their local area. They will be supported by reading materials that will contain images and sketches from Hooker's herbarium as well as Bengali chronicles that contain descriptions of the local environment, Ayurvedic medicines and other important narratives on local cultural practices including from the *Puthi* collection

The aim of the study day is to make students aware of the botanical heritage of India as found in the colonial archive and in the local knowledge held in community repositories in West Bengal.



'A stream in the Western Ghats', by William Robert Houghton (1826-97), watercolour, c. 1878.

Outcomes, Impact and Evidence

The staging of the Hooker and India exhibition in Kolkata will deepen and expand the exhibition's original impact in the U.K. by presenting it to an entirely new public and academic audience in India, while the production of teaching materials will extend this impact in schools and universities. The extension to audiences within India is seen as of particular value as much of Hooker's most important work and most prolific collecting was done here.

The exhibitions therefore represent a repatriation of knowledge, helping to highlight the centrality to scholarship of India and Indian collections and also reconnecting disparate materials to regenerate debate. The search for related materials at Indian institutions to be undertaken as part of the project will extend knowledge of both Hooker and Indian collections while consultation with universities, and the school project will help build connections and collaborative working relationships between Kew, Sussex, The BSI, the Indian Museum, Indian universities, schools and other institutions.

The exhibition will also generate new audiences and users for the Kew/Sussex database of Hooker's Indian correspondence. While the Indian Museum would benefit directly from increased visitor numbers, the international reputations of the Indian Museum, Kew and Sussex would be mutually enhanced by the collaboration.

Both of these exhibitions will enhance the collaboration between Indian and British institutions and will highlight the British Council initiative in India on facilitating Museums and Galleries: UK - India opportunities and partnerships. The school project will bring an understanding of Indian environmental and natural history to a secondary school level audience. The opening public conference will facilitate networking and the exchange of ideas, building on those developed during the funded phase of the original network and in particular the conferences held at Sussex and Delhi in 2012, 2013 and 2014 while presenting the opportunity to engage new international audiences including policy makers.

Direct Conversations and meetings will create impact among professionals and policy makers. Such networks and relationships, will in turn help facilitate the proposed next phase of Indian Ocean environmental studies at CWEH: the development of a digital architecture within which an exhaustive archive of sources for the environmental history of the Indian Ocean is brought together and rendered fully searchable and freely accessible from anywhere in the world, revolutionising the study of environmental history. Documenting this project and measuring its impact is part of the production of knowledge central to the vision of the proposal.