

Report on 'Botany in British India' study day

The 'Botany in British India' study day was held on 7 December 2012 at the British Library, to launch the digitisation of 120 files from the India Office Records relating to colonial botany. For links to the files, see <http://bit.ly/RbQ54c> The aim of the day was to uncover relevant resources in the UK and South Asia and to find out how accessible these were. The speakers were:

Gina Douglas	Formerly Librarian and Archivist, Linnean Society
Anne Buddle	Head of Collections Management, National Galleries of Scotland
Dr Henry Noltie	Botanist, Royal Botanic Garden, Edinburgh
Dr Paramjit Singh	Director and Scientist General, Botanical Survey of India
Professor Deepak Kumar	Professor of History of Science and Education, Jawaharlal Nehru University, Delhi
Dr Mark Watson	Plant taxonomist, Royal Botanic Garden, Edinburgh
Kathy Lazenbatt	Librarian, Royal Asiatic Society

Summaries of the talks are given below; sources discussed are listed separately. The lists, which are not intended to be exhaustive, will be passed to the Centre for World Environmental History, University of Sussex. The Centre is creating an on-line map of resources for the environmental history of South Asia. Even at this early stage, the lists show connections between sources and identify promising sources to explore.

Gina Douglas discussed the collections of the Linnaean Society. The holdings are surprisingly rich in South Asian material. Linnaeus himself never visited India, but several of his followers did. Johan Gerhard Konig, for example, worked as a naturalist for the Nawab of Arcot and several of his letters and plant specimens survive in the main Linnaean collection. Linnaeus's correspondence itself has now been digitised and is on-line; his annotated books will follow. The herbarium of the Society's first president, James Edward Smith, contains many specimens from India, with letters from key figures like Francis Buchanan. These have also been mounted on-line. The papers read out at the Society's regular meetings include papers on Indian subjects, submitted by men like Thomas Anderson, Henry Colebrooke, Hugh Falconer, and William Roxburgh. These submissions were often accompanied by illustrations; Gina showed some plant drawings from a paper by Thomas Hardwicke. Letters to the Society from its Fellows and Associate Fellows are another useful source, because the letters include some from Indian correspondents. Of other manuscripts and drawings, Gina highlighted a series of albums from Albert Gunther depicting animals of the East Indies, and drawings by Emma Williams, probably the wife of a tea planter, of fruits of Assam. She noted some manuscripts that relate to later published works, such as a bound volume of drawings watermarked 1816-17 for William Roxburgh's *Flora Indica* (1820-24). In conclusion, Gina showed items from a library on tea: an unusual collection amassed by James Inch, who worked at the Toklai Tea Research Institute at Jorhat.

Delegates suggested that the biographical information about the Fellows of the Linnean Society, among whom were several Asians, ought to be mounted on-line. Gina added that the Society held early photographs of Fellows.

Format (NB 'Drawings' covers paintings etc.)	Quantity	Content	Creators	Location: Linnean Society
Documents; herbarium sheets	11 letters; 11 manuscripts	Letters from Tranquebar with plant descriptions and specimens	Johan Gerhard König (1728-85)	Correspondence available through Linnean Society website, and website of Linnaeus Correspondence Project, Sweden http://linnaeus.c18.net/
Documents	Extensive	Correspondence, includes material from India	Carl Linnaeus (1707-78)	
Books	Extensive	Annotated volumes from personal library	Carl Linnaeus	On-line through Linnean Society website, and Jstor
Herbarium; books; documents		Personal collections of James Edward Smith, many with Indian connections. Correspondence with many botanists in India	James Edward Smith (1759-1828); correspondents include Francis Buchanan, Thomas Hardwicke, William Hunter, H J Lebeck, J P Rottler, William Roxburgh, Nathaniel Wallich, David White	Soon to be on-line at Linnean Society website
Documents		'Society Papers' on Indian subjects	Thomas Hardwicke (1755-1835); Thomas Anderson (1832-1870); Henry Colebrooke (1765-1837); Hugh Falconer (1808-1865); William Roxburgh (1751-1815)	Listed in LS catalogue with pressmark 'SP' Some published in <i>LS Transactions</i>
Documents		Letters from Fellows and Associate Fellows	Various	Many transcribed and available as word files
Drawings		Collection of drawings of 'fruits of Karimgang, Assam, with recipes	Emma Williams, /? 1920s	LS catalogue
Drawings		Travels in India	Paul Edmund de	

			Strzelecki (1793-1823)	
Drawings	15 albums	East India natural history and marine life in Indo-Pacific ocean	Albert Charles Lewis Gunter (1830-1913)	
Drawings	26	Indian zoological	Thomas Hardwicke (1755-1835)	
Documents, photographs		Photographs of Ceylon	John Christopher Willis (1868-1968)	
Drawings	22	Plants and insects of India	William Carey (1761-1834)	
Drawings	5	Indian irises	David Don (1799-1841)	
Documents	1 volume	Manuscript of <i>Catalogue plantarum...Burmico</i> 1826-27	Nathaniel Wallich (1786-1854)	
Documents	2 folders	<i>Index catalogum florum Burmanica</i>	Nathaniel Wallich (1786-1854)	
Documents and drawings		Plants for the Royal Botanic Garden, Calcutta	Andrew Thomas Gage (1871-1945)	
Documents and drawings	1 volume	<i>Flora Indica</i> (watermark 1816-17)	William Roxburgh (1751-1815)	
Drawings		Flowers from Kashmir	Emilia Noel (d 1950)	
Drawings		Flowers of Ceylon	Dorothy Fernando <i>fl</i> 1950s	LS catalogue; also published in <i>Wild Flowers of Ceylon</i> (1954)
Documents		Institutional archives; include records re East India Herbarium and distribution of catalogue of Nathaniel Wallich	Linnaean Society	LS catalogue
Books; photographs	300+	Tea Library, re plantations in Assam and elsewhere	James Insch (1877-1951)	

Anne Buddle discussed two scrapbooks held in a private collection in Wales. These record the travels of the sisters Charlotte and Henrietta Clive, and their governess Anna Tonelli, in Southern India between 1798 and 1801. The sisters' mother was the daughter of the 1st Earl of Powis; she married Edward Clive and accompanied him to India when he was appointed Governor of Madras in 1798. Both Charlotte and Henrietta kept journals, which give the background to the paintings and drawings collected in the scrapbooks. From Madras, the sisters and Anna travelled into the surrounding countryside. In 1800, they undertook a 1155-mile tour of Mysore and Tanjore, describing and recording the flora and landscapes that they found along the route. Anne showed a range of the sisters' drawings and quoted from their journals. She also showed Tonelli's

views of Madras and portrait paintings, a plan of the garden at Government House, Madras, and a painting of the garden at Plantation House, St Helena, where the travellers stopped on the voyage home. Anne built up a picture of three curious, careful collectors and observers. Other people also feature in the records, sometimes intriguingly. In the botanic garden at Bangalore, Henrietta glimpses in the distance the Superintendent, ‘a man in a blue coat’. This was Francis Buchanan, of whom no image now survives.

Format	Quantity	Content	Creators	Location; notes
Drawings; documents	2 volumes	Scrapbooks containing letters, photographs, typed copy of Charlotte Clive’s journal, portraits, paintings and drawings of natural history and European landscapes, buildings, plants, birds, in Mysore and Tanjore countries, India	Charlotte Clive (1786-1866); Henrietta Clive (d 1835); Anna Tonelli (c 1763-1846); members of Clive family in 19c	In private collection. Contact rafela_fitzhugh@yahoo.co.uk Further reading: W H Ramsay, <i>Journal of a Voyage to the East Indies by C F Clive</i> (1857) Nancy K Shields, <i>Birds of Passage</i> (2009) [Henrietta Clive’s journal] Francis Buchanan, <i>Journey from Madras through the Countries of Mysore</i> (1807)

Henry Noltie discussed the archives of the Royal Botanic Garden Edinburgh. Created in the main by a succession of pioneering Regius Keepers and surgeon-botanists of the East India Company, these encompass herbarium sheets, books, documents, botanical illustrations, and photographs. Henry noted the element of chance in their survival. Until the mid-nineteenth century papers relating to the Botanic Garden and its collections were regarded as personal property and bequeathed down the family; only families that continued to flourish were likely to return papers to the institution later. Among the collections of South Asian interest that Henry highlighted were the personal letter books of the Regius Keeper John Hutton Balfour, whose correspondents included important botanists from India, and the archives of William Wright Smith, Director of the Botanical Survey of India, and his wife’s nephew Roland Cooper, which include rare photographs of Indian plant collectors. Of single items, Henry drew attention to a volume of lecture notes taken by Francis Buchanan of John Hope’s botanical lectures: a unique record. The volume had passed into the hands of Tipu Sultan before being restored to Buchanan after the fall of Seringapatam. Henry then discussed archival collections in private families. Seats of Scottish families with Indian connections, houses such as Hopetoun in West Lothian, Blair Adam in Kinross, and Broomhall, Fife, often hold archives that merit further exploration. Henry gave the example of Broomhall, which holds not only viceregal papers of the 8th and 9th Earls of Elgin, but also material relating to the merchant and shipowner Sir Robert Preston (‘Floating Bob’), who began his career with the East India Company. There are also more tangible links in terms of artefacts, and even deodar trees in the garden grown from seed from Dharamsala where the 8th Earl died shortly after being visited by Hugh Cleghorn, who was at the time surveying the forest resource of the W Himalaya.

Delegates noted that private collections were more likely than were public archives to hold information on subalterns and women. The National Archives of Scotland had recently conducted a top-level survey of private collections.

Format	Quantity	Content	Creators	Location; notes
Herbarium sheets	Extensive	Plant specimens with manuscript data	William Roxburgh (1751-1815), Francis Buchanan (Francis Buchanan-Hamilton) (1762-1829, Robert Wight (1796-1872), George Watt (1851-1930), Roland Cooper (1890-1962), Frank Ludlow (1885-1972), George Sherriff (1898-1967), Francis Kingdon-Ward (1885-1958)	Royal Botanic Garden Edinburgh
Documents	1 volume	Manuscript catalogue of personal herbarium	Francis Buchanan	
Drawings		Botanical drawings for use in teaching, including an Indian drawing sent by James Kerr from Bengal in 1774	John Hope (1725-1786)	
Documents	1 volume	Notes from the Edinburgh University lectures of John Hope, 1780s	Francis Buchanan	
Books and drawings		Personal library; botanical illustrations gathered for own research and for teaching at Madras Medical College	Hugh Cleghorn (1820-95)	
Documents	12 volumes	Incoming correspondence as Regius Keeper; strong in fields of education, medicine	John Hutton Balfour (1808-84) Correspondents include Hugh Falconer, Thomas Thomson, Thomas Anderson, George King, John Forbes Royle, William Jameson, Dietrich Brandis, Hugh Cleghorn, Nicol Dalzell, Andrew Jaffray, George Birdwood, Walter Elliot, Alexander Hunter, John Forbes Watson	
Documents	4 volumes	Incoming correspondence as Superintendent of Calcutta Botanic Garden, 1861-69	Thomas Anderson (1832-70)	

Herbarium sheets, drawings, documents, glass-plate negatives	Extensive; 1000+ glass-plate negatives	Involvement in economic and taxonomic botany, exhibitions, Indian crafts, architecture, archaeology	George Watt	
Documents and glass-plate negatives		From career as Keeper of Calcutta Herbarium and Director of Botanical Survey of India. Himalayan interest.	William Wright Smith (1875-1956)	
Herbarium sheets; documents		From Indian career including as Curator of Lloyd Botanic Garden, Darjeeling; Expeditions to Sikkim	George Henry Cave (c 1870-1965)	
Herbarium sheets; documents; photographs		Expeditions to Bhutan; important photographs include Lloyd Botanic Garden, Darjeeling, and Rohmoo, a native plant-collector	Roland Edgar Cooper (1890-1962)	
Photographs; documents		Expeditions in Bhutan and Tibet; diaries	George Sherriff	Diaries edited by H R Fletcher in <i>A Quest of Flowers</i> (1975)
Unexplored		Material gathered by Hope family. 2 nd Marquess was Viceroy of India 1936-43	Hope family (Marquesses of Linlithgow)	Hopetoun House, West Lothian
Unexplored		Material gathered by Adam family. John Adam (1721-92) Secretary to Marquess of Hastings; William Adam (1823-81), Secretary to Lord Elphinstone	Adam family	Blairadam House, Kinross
Unexplored		Material gathered by Bruce family. 8 th and 9 th Earls of Elgin were both Viceroys of India in 19c; also papers of Sir Robert Preston	Bruce family (Earls of Elgin and Kincardine) Robert Preston (1740-1834)	Broomhall, Elgin

Paramjit Singh discussed the manuscript holdings of the Indian Botanical Garden, a unit of the Botanical Survey of India. Paramjit outlined the history of the garden, from its foundation in 1787 to an institution of continuing importance today. He noted the strong historical links with the Kew and Edinburgh gardens. The Botanical Survey of India was created in 1890 to co-ordinate botanical activity across the country. The Survey was divided into four circles: Northern (centre: Saharanpur), Western (Poona), Southern (Madras) and Eastern (Calcutta). Calcutta was the chief centre and the archives of the Southern circle were later transferred there. In the Indian Botanical Garden, the core

collections are the correspondence volumes of Nathaniel Wallich, under whose superintendence the garden became a hub of world-wide plant exchange. Paramjit showed examples of Wallich's letters. He noted that the Garden's Herbarium, of some 2.5 million specimens, contains a separate herbarium of about 12,000 specimens collected by Wallich. Other manuscript holdings include correspondence by men like William Roxburgh, J D Hooker, Charles Clarke and Robert Wight, and a rare collection of textile samples compiled by John Forbes Watson. Not all the Garden's archives survive: some were lost in the floods of the 1960s and 1970s. Paramjit noted collections in the Industrial Section of the Indian Museum, which is now a unit of the Survey: these include ledgers created by George Watt for his *Dictionary of Economic Products of India*. Paramjit then outlined the Survey's priorities for digitisation. Flora of India were the top priority. Many type specimens had already been digitised; the next step was to make them available on-line. The Garden's manuscript collections were the next priority. The aim was to place low-resolution images on-line, free of charge. Paramjit proposed that the Wallich correspondence, when digitised, be added to the material on the Wallich web-site hosted by Kew Gardens. He stressed that international collaboration was needed to make the Garden's collections as accessible as possible.

Format	Quantity	Content	Creators	Location; notes
Documents	Extensive	Correspondence and other manuscripts	Include William Roxburgh, David Don, J.D. Hooker, Robert Wight, Charles Baron Clarke (1832-1906)	
Drawings	Extensive	Include original set of William Roxburgh's <i>Flora Indica</i> drawings; paintings of orchids of Sikkim by George King and Robert Pantling	William Roxburgh; George King; Robert Pantling (1857-1910)	
Documents	25 volumes	Correspondence 1794-95, with an index volume	Nathaniel Wallich	
Documents	1 volume	"Catalogue of the Hon'l East India Co. Bot. Garden at Calcutta"	Nathaniel Wallich	
Herbarium sheets; documents		Collection of herbarium sheets; personal correspondence	George Watt	Digitised
Documents and artefacts	18 volumes	Textile samples	John Forbes Watson (1827-92)	Further reading: Felix Driver and Sonia Ashmore, "The Mobile Museum", <i>Victorian Studies</i> 52:3 (2010)
Documents	Volumes	Ledgers	George Watt	Industrial

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Deepak Kumar gave an historical overview of archival sources in India. He distinguished between the top-level papers created by the British for their superiors in India and London, and the raw materials on which these papers were based. The former are well represented in the main archival institutions; the latter, which include Indian-language material, survive in surprisingly large quantities at district and local level. For environmental historians, Deepak singled out the West Bengal State Archives, the Calcutta Mint, and the Dehra Dun survey records. He ascribed the richness of local sources to the mutual respect that had once existed between colonisers and colonised, before the colonial arteries had started to harden. In the eighteenth and early nineteenth centuries, local knowledge was regularly used in scientific enquiry. Deepak advised researchers to adopt the holistic approach to knowledge of these early enquirers: botanical material is not only to be found in botanical institutions. The archives of the Kings Institute for Bacteriological Research in Madras, for example, contain valuable information on medicinal plants. For researchers studying the first half of the twentieth century, Deepak recommended the printed National Assembly debates on subjects like public health, and the related speeches and pamphlets which are often held by local libraries. These sources articulate, to a high level, the aspirations of a nation in the making.

In reply to questions, Deepak stressed the importance of using primary sources at classroom level. Delegates also drew attention to the records at the Natural History Museum of William Sykes, whose survey of the Deccan drew heavily upon local sources of information.

Mark Watson traced the dispersed archives of Francis Buchanan (also known as Francis Buchanan-Hamilton). Buchanan graduated in medicine from Edinburgh University and enjoyed a long career as a surgeon-naturalist with the East India Company, conducting surveys in the Kingdom of Ava, Mysore, Nepal and Bengal. His missions generated large collections of plant specimens, manuscripts and drawings. Buchanan presented many of his specimens to his old friend, James Edward Smith. Mark showed examples of Buchanan's findings emerging in the work of others: in David Don's book on the flora of Nepal, for instance. Mark showed graphically the later distribution of the Nepal collections, which are now to be found in a number of institutions. He then surveyed the on-line resources that he, as a researcher, had found useful. These ranged from large-scale digitisation projects, such as Google Books and the digitised herbaria at Harvard University, to discussion groups hosted by enthusiasts. Random searching could equally yield unexpected material: Mark showed an image of Mary Sophia Wallich's teeth which he had uncovered from a database of archaeological records. The single most effective tool for researchers, however, was self-service photography at archives and libraries. Mark urged institutions without this facility to introduce it, mentioning Cambridge University Library's service as a model to be followed. He also called for more on-line catalogues and digitised collections. Users could help to develop digitised content themselves, by uploading transcriptions, for example. Mark concluded by showing Buchanan's network of plant-exchange in old age: between Nathaniel Wallich in Calcutta, Edward Gardner in Kathmandu, William McNab (senior) at the Royal Botanic Garden Edinburgh, and Buchanan in retirement at Leny House, Scotland.

Format	Quantity	Content. Created by Francis Buchanan, also known as Francis Buchanan-Hamilton	Location; notes
Herbarium specimens, drawings		Mission to Ava, 1795	Natural History Museum, London (Banks collection) Some material published in Michael Symes, <i>Account of Embassy to the Kingdom of Ava</i> (1800)
Herbarium specimens, drawings; documents		Survey of Mysore and territories, 1799-1800	Linnean Society
Herbarium specimens, drawings; documents		Expedition to Nepal, 1802	Linnean Society (Buchanan-Hamilton and James Edward Smith collections) Second set of herbarium specimens at Natural History Museum Duplicate drawings in Natural History Museum (Fleming copies) and British Library (Wellesley copies) Some material published in James Edward Smith, <i>Exotic Botany</i> (1806); David Don, <i>Prodromus Florae Nepalensis</i> (1825); William Roxburgh, <i>Hortus Bengalensis</i> ; Francis Buchanan-Hamilton, <i>An Account of the Kingdom of Nepal</i> (1819); <i>An Account of the Fishes of the Ganges</i> (1822)
Herbarium specimens		Statistical survey of Bengal, 1807-14	Royal Botanic Garden Edinburgh Royal Botanic Garden Kew (EIC Herbarium)
Herbarium specimens; documents; drawings		General career	British Library (drawings, and documents in India Office Records) Linnean Society (drawings, specimens and correspondence) Natural History Museum (drawings, specimens and correspondence) Royal Botanic Garden Kew (Prain collections: drawings, specimens and correspondence) Royal Botanic Garden Edinburgh (specimens, documents) University of Edinburgh (documents)

			National Archives of Scotland (family papers) Kolkata Botanic Garden (Wallich correspondence)
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Kathy Lazenbatt discussed the Jones collection of botanical drawings held by the Royal Asiatic Society. The many interests of the orientalist Sir William Jones included botany; he particularly observed the plants in his garden at Krishnagar. Several of the drawings that Kathy showed were by Indian artists; they were notable for their high quality and attention to detail. Only one, however, was signed: a drawing of *Dillenia indica* by Zain al-Din. The collection included the sketchbooks of Jones's wife, Anna Maria. Kathy showed examples of Anna-Maria's flower drawings, some with notes in Sir William's hand, including plant names in Latin, Sanskrit or Bengali. Kathy presented a picture of close collaboration between husband and wife, revealing a less well-known, domestic side to Jones. She then drew attention to other relevant items in the Society's collections: letters from Henry Thomas Colebrooke to Nathaniel Wallich, which show Colebrooke's interest in botany, and manuscript volumes relating to Francis Buchanan's survey of Bengal.

Format	Quantity	Content	Creators	Location; notes
Drawings; documents	90 items	Jones collection of botanical drawings, with notes by Jones and his wife Anna-Maria. Includes drawing by Zain al-Din	William Jones (1746-94); Anna-Maria Jones (1748-1829)	Royal Asiatic Society, London
Documents	28	Letters to Nathaniel Wallich	Henry Thomas Colebrooke	
Documents		Statistical Survey of Bengal	Francis Buchanan	

At the end of the day, delegates viewed a display of botanical manuscripts and drawings from the British Library's collections.

Antonia Moon
15.1.13