

Wallich and Indian Natural History: Collection Dispersal and the Cultivation of Knowledge

In partnership with the Royal Botanic Gardens, Kew, and the British Library
Funded by the World Collections Programme

6th–7th December, 2011

6th December: Natural History Museum, London

7th December: Royal Botanic Gardens, Kew

Conference Information Pack



Contents

Welcome from the Centre for Arts and Humanities Research at the Natural History Museum	2
Conference Abstract	5
Maps and directions to the Museum	6
Maps and directions to Kew	7
Registration details	9
Conference Details: Tuesday, 6 th December	10
Conference Details: Wednesday, 7 th December	12
Conference Speakers: Abstracts and Biographies	13

Welcome from the Centre for Arts and Humanities Research (CAHR) at The Natural History Museum

We are delighted to welcome you to the conference to celebrate our “Wallich and Indian Natural History” project, a collaboration between our Centre at the Natural History Museum (NHM), the Royal Botanic Gardens, Kew and the British Library. We very much hope that you enjoy the conference, the first NHM inter-institutional collaboration of its kind, and are inspired by the interdisciplinary research both in development and already conducted.

Our “Wallich and Indian Natural History” project website can be accessed via the following link: <http://www.kew.org/wallich>. An audio-recording of our conference will be made available after the conference, online via the academic audio-recording company Backdoor Broadcasting: <http://www.backdoorbroadcasting.net>, should you wish to further reflect on the presentations given.

A brief history of CAHR: In 2007, the ‘New Perspectives’ project was developed at the Museum in collaboration with Kingston University and funded by the Arts and Humanities Research Council (AHRC). This project invited academics from selected universities to give a high-level assessment of the potential for the Museum’s specimens, and the library, art and archives collections, to be used as a resource for arts and humanities research. The report that was delivered to the AHRC and the Museum concluded that there was “a dazzling opportunity” to undertake research in these disciplines that would be of international significance and complement the scientific research output at the NHM, and it was recommended that the Centre for Arts and Humanities Research be established to support such research.

Selected projects: Over the past four years, the CAHR team has managed a number of collaborative research projects:

Museum Lives: Museum Lives has been a three-year project knowledge transfer partnership conducted in collaboration with Kingston University. Funded by AHRC, it is the largest oral history project that this Research Council has ever supported. The aim of the project has been to make available the NHM’s collections and institutional knowledge in a major research archive, providing human and cultural insight into the Museum through a series of 50 interviews with senior Museum staff. The methodology and outputs of this project were highlighted at a conference earlier this year, jointly hosted with the Royal Society. This is available online as an audio archive:

<http://backdoorbroadcasting.net/2011/06/science-voices-scientists-speak-about-science-and-themselves/>. In February 2012, CAHR will launch a project website which will include 120 clips, each describing thematically diverse aspects of Museum life.

Scott's Last Expedition: CAHR has provided research support for this travelling exhibition which will open in the Museum in January 2012. On behalf of the Public Engagement Group at the Museum, CAHR worked with the Scott Polar Research Institute at Cambridge University to locate relevant collections and commission an assessment of the science of Captain Scott's expeditions. This successful collaboration has generated a report focusing on three key areas of the expedition and has contributed significantly to the design and content of this public exhibition.

Reconstructing Sloane: The vast collections of Sir Hans Sloane (1660–1753) were the primary part of the founding collection of the British Museum at its opening in 1759. However, the transfer of the animal, plant, mineral and fossil specimens to the Natural History Museum in 1881, and of Sloane's library and manuscripts to the British Library in the twentieth century, caused a major fragmentation which has had a detrimental effect on the study and understanding of this incomparable early modern collection. In collaboration with the British Museum and the British Library, we are developing a large-scale project aimed at unlocking the huge potential of this dispersed Sloane archive for interdisciplinary research.

In undertaking a broad spectrum of projects, CAHR is seeking to complement the high-quality scientific work undertaken at the Museum with humanities methodologies. This, we hope, will enrich deeper structural understandings of the Museum's collections and practices, supporting interdisciplinary research projects with a variety of research institutions around fundable and significant issues.

What CAHR offers for academic researchers:

CAHR aims to enable and promote research into the Museum's collections by researchers in arts and humanities disciplines.

In 2012, we will be hosting five research fellowships funded by Kingston University. Five academics from UK higher education institutes (HEIs) will come to the Museum for a period of up to three months, to study and assess an aspect of the Museum's collections within the context of one of CAHR's Project Themes (i.e. Global History, Visual Art, Literature and Texts, Philosophy and Ethics, Museology).

We want to hear from you! If you are an Arts or Humanities scholar interested in collaborating with CAHR on an interdisciplinary project, please contact the CAHR team with your proposal.

Conference Abstract

This international conference will be held on the 6th and 7th December, 2011, on the general theme of South Asian natural history collections with a special emphasis on those of the Danish botanist Nathaniel Wallich (1786-1854), a major figure in the history and development of botany in the nineteenth century. As Superintendent of the Calcutta Botanic Garden (1817-1846), he undertook botanical expeditions, described new plant species, amassed a large herbarium, collected thousands of plant specimens and commissioned local artists to draw beautiful botanical watercolours. His work has consequently been highly influential in South Asian natural history research.

Major South Asian natural history collections from the 18th and 19th century are now dispersed across institutions in South Asia, Europe and beyond. The conference will explore the challenges associated with exploiting such collections and the interesting opportunities they provide for interdisciplinary research. In particular, the conference will consider the experience of the current “Wallich and Indian Natural History” project as an interesting exemplar (a collaboration between the Natural History Museum, the Royal Botanic Gardens, Kew and the British Library).

Hosted by the Natural History Museum and the Royal Botanic Gardens, Kew this conference is an integral part in the World Collections Programme-funded project “Wallich and Indian Natural History”.

Day One, 6th December

The first day of the conference will be held at the Natural History Museum, and will be structured into three speaker sessions. The themes for these sessions are:

- 1) Nathaniel Wallich: His Expeditions and Collections
- 2) Dispersal and Movement within the British Empire
- 3) The Wallich Project

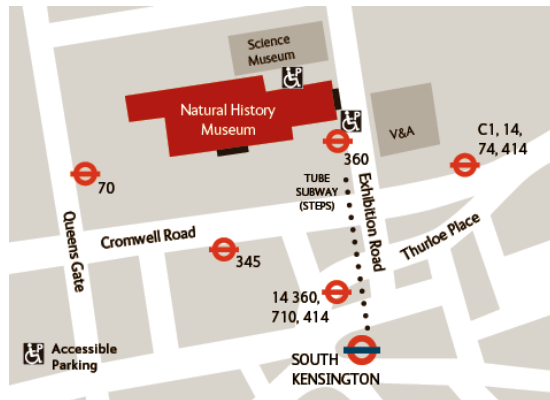
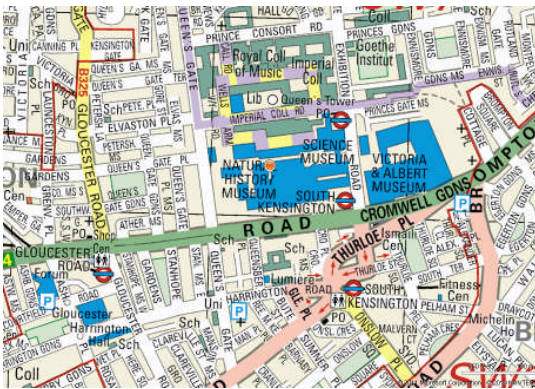
Day Two, 7th December

Morning: Free time to visit the Royal Botanic Gardens, Kew.

Afternoon: Workshops and private viewings of Wallich material.

A breakdown of both these days can be found on subsequent pages.

Maps and Directions to the Museum



Directions

There are many ways to reach us:

By tube: We are within walking distance of South Kensington station on the District, Circle and Piccadilly lines.

By bus: Routes 14, 49, 70, 74, 345, 360, 414 and C1 stop near us. Some tour buses also pass nearby

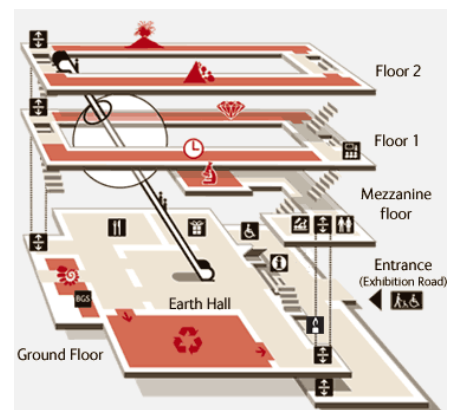
By bicycle: Routes 14, 49, 70, 74, 345, 360, 414 and C1 stop near us. Some tour buses also pass nearby

By coach: Victoria Coach Station is within walking distance of Victoria train and tube station on the Circle or District lines. For groups travelling by coach, there is a coach drop-off point outside the Cromwell Road entrance

By car: Driving to the Museum is not easy and parking is expensive, there is limited meter parking on Exhibition Road

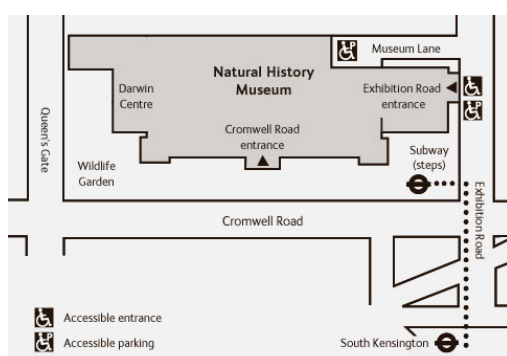
Use the **Exhibition Road** entrance for entry to the Flett Theatre. Once you arrive, go up the staircase to your left (just before the **Visions of Earth** gallery).

The **Flett Theatre** is on the First Floor, through the double-doors on the left-hand side.

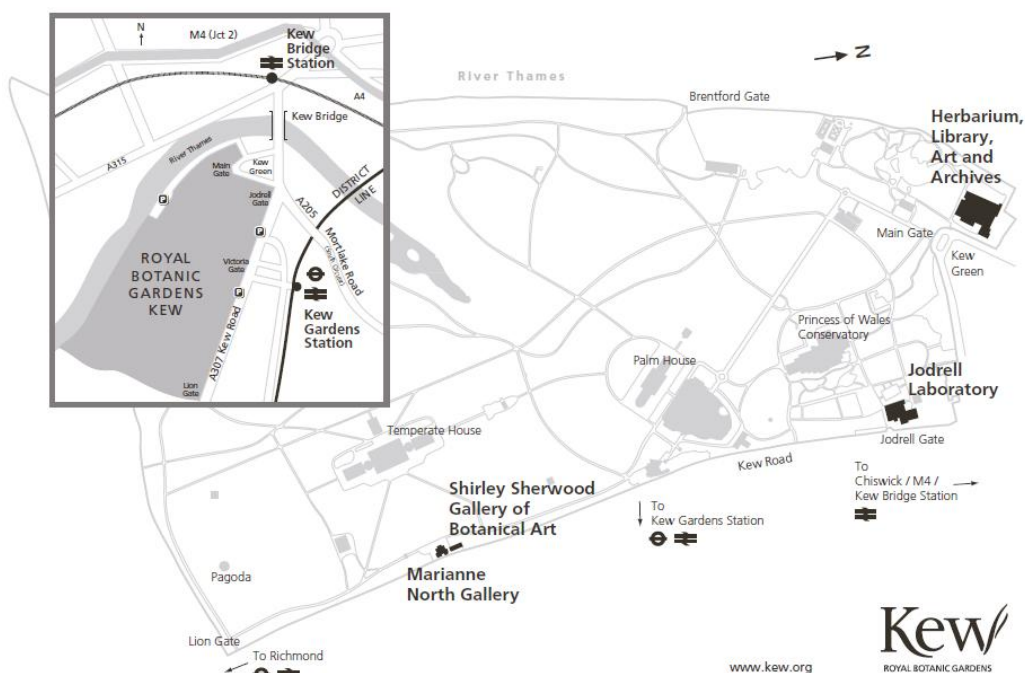


Key	
	Earth Lab
	Earth's Treasury gallery
	Lasting Impressions gallery
	Restless Surface gallery
	From the Beginning gallery
	The Power Within gallery
	Earth Hall

Facilities			
	Toilets		Accessible toilets
	Lifts		Cloakroom
	Information and tickets		Shop
	Sandwich bar		BGS British Geological Survey
	Flett Events Theatre		Baby care room
	Faith Room		



Maps and Directions to Kew



A Note on Parking

Please note that parking is available along the Kew Road from 10am onwards. You may park on the Green at anytime but places here are very limited. Parking in the surrounding side streets is only possible from 12 or 1pm onwards, depending on the road.

Visiting Kew in the Morning

Please show your conference pass at either the Main or Victoria Gates to gain free access to the Gardens in the morning.

If you do visit the Gardens in the morning you might particularly like to visit the Shirley Sherwood Gallery to see the recently opened exhibition on Sir Joseph Hooker, celebrating the centenary of his death <http://www.kew.org/visit-kew-gardens/whats-on/joseph-hooker-naturalist-traveller-and-more.htm> Adjacent is the Marianne North Gallery, which earlier this year reopened after the complete restoration of the building and conservation of the collection. If you have not been to the Marianne North Gallery before it is worth a visit as in both the style of painting and how they are displayed it is a unique Victorian triumph. <http://www.kew.org/visit-kew-gardens/garden-attractions-A-Z/marianne-north-gallery.htm>

Afternoon Conference Session

For the afternoon show and tell session, please assemble at the Herbarium and Library Building Reception at 14:15. To access this you should use the separate gates to this building on Kew Green. If you are coming from the Gardens, the easiest route to exit the gardens is via the Main Gate. The Herbarium and Library gates are just 50m away on the left.

Registration details

Registration will take place from 10:00–10:20, on 6th December in the Flett Lecture Theatre Foyer, Earth Gallery, the Natural History Museum, London.

The Registration Desk and Lecture Theatre will both be sign-posted from the Museum's side-entrance at Exhibition Road. There are cloakroom facilities adjacent to the Theatre Foyer.

On registration, you will receive a delegate pack containing:

- your name badge
- all conference information
- materials on future conferences at the Natural History Museum, the Royal Botanic Gardens, Kew and the British Library.

When at the conference, please wear your delegate badge at all times. Delegates not wearing a badge will not be admitted to the Flett Lecture Theatre or Foyer, and will not be able to attend our panel sessions.

All refreshments including morning coffees, lunch and our afternoon reception are included in the delegate fee and will be made available in the Flett Theatre Foyer.

Unfortunately we are unable to cater for any special dietary requirements.

Conference Details: Tuesday, 6th December

Flett Theatre, Natural History Museum, London

10:00–10:20 Coffee and Registration in the Flett Theatre Foyer, Natural History Museum Main Building (Earth Galleries)

10:20–10:30 Welcome (Professor Phil Rainbow, Keeper of Zoology, NHM)

10:30–10:40 Opening Remarks (Julie Harvey, CAHR Centre Manager, NHM)

10:40–12:10 **Panel 1. Nathaniel Wallich: His Expeditions and Collections**

Chair: B. Venugopal, Director, National Natural History Museum, New Delhi, India

David Arnold Nathaniel Wallich and the Natural History of India

Bodhisattva Kar Frontier, Collected: Nathaniel Wallich in the North-Eastern Frontier of British India

Sangeeta Rajbhandary, Krishna K. Shrestha, Mark F. Watson Wallich and the first explorations of the Nepalese flora

12:10–13:10 Buffet lunch in the Flett Theatre Foyer

13:10–14:40 **Panel 2. Dispersal and Movement within the British Empire**

Chair: Professor Felix Driver, Professor of Human Geography, Royal Holloway, University of London

Sandip Hazareesingh Plants, power and productivity: the East India Company and Cotton Imperialism in Early nineteenth-century western India

	Caroline Cornish	Circulating India: Kew, colonial forestry and circuits of display
	Kapil Raj	Natural History Illustrations from south Asia in the Natural History Museum, the Royal Botanic Gardens, Kew, and the British Library: Uses and Potentials
14:40–14:55	Tea and coffee in the Flett Theatre Foyer	
14:55–16:25	Panel 3. The Wallich Project	
Chair: Dr Vinita Damodaran, Senior Lecturer in South Asian History, University of Sussex		
	Henry Noltie	Scottish surgeons and Indian botany: dispersed collections of drawings and specimens, a case study from the Royal Botanic Garden Edinburgh
	Antonia Moon and Charlie Jarvis	Wallich's papers at the British Library and beyond
	Timothy Utteridge, Clare Drinkell and Ranee Prakash	The Wallich plant illustrations in London: identification and dissemination
16:25–16:45	Closing Remarks (Julie Harvey, CAHR Centre Manager, NHM)	
16:45–17:30	Tea in the Flett Theatre Foyer	

Please note: In each panel, papers will be 25 minutes each, with 15 minutes allocated for question time at the end. All panel sessions will take place in the Flett Theatre.

Conference Details: Wednesday, 7th December

Royal Botanic Gardens, Kew

9:30–14:15 **Free time:** Delegates are offered free access to the Gardens from 9:30, when the Gardens open. To obtain free access you will need to show your conference badge to the staff at the entrance. Please use either the Victoria Gate or Main Gate entrances.

Please visit <http://www.kew.org> to help plan your time. We would recommend a visit to both the Marianne North Gallery, which was reopened earlier this year following a full restoration back to its original design, and also to the adjacent Shirley Sherwood Gallery which has an exhibition – Joseph Hooker – naturalist, traveller and more -marking the centenary of Hooker's death.

14:15–14:30 Please assemble in the Reception of the Herbarium & Library Building, [Entrance on Kew Green]

14:30–17:00 **Workshops:** Delegates will be formed into groups and each group will be taken through parts of both the original Herbarium Building and the latest extension which opened last year.

Kew's Wallich related collections will be set out at four points around the building, where staff responsible for the collection will talk on the items on display and provide an opportunity for discussion.

Groups will have up to 30 minutes at each of the following four points:

Paintings & drawings/books

Manuscripts & Archives

Herbarium Specimens

Items from the Economic Botany Collection and Wood Samples

17:00–18:30 **Conference Reception** in Main Library Reading Room

Conference Speakers: Abstracts and Biographies

Panel 1. Nathaniel Wallich: His Expeditions and Collections

David Arnold

Nathaniel Wallich and the Natural History of India

Abstract: Nathaniel Wallich occupies a critical place in the history of nineteenth-century botany and the colonial investigation of India's natural history. Despite being Danish by birth, he became superintendent of the East India Company's botanic garden in Calcutta in 1815 and for three decades was a central figure in the scientific establishment in India. Well-connected internationally, a leading collector and disseminator of botanical specimens and plant knowledge from South and Southeast Asia, Wallich's career was also one of frustration and failure to achieve the lasting recognition his intellect, perseverance and opportunity seemingly deserved.

Biography: David Arnold has recently retired as Professor of Asian and Global History at the University of Warwick. He has written extensively on the history of science and medicine in British India, including the role of botany. He has considered the importance of Nathaniel Wallich in two works: *The Tropics and the Traveling Gaze: India, Landscape, and Science, 1800-1856* (Seattle: University of Washington Press, 2006), and 'Plant Capitalism and Company Science: The Indian Career of Nathaniel Wallich', *Modern Asian Studies*, 45: 5, 2008, pp. 899-928.

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Bodhisattva Kar

Frontier, Collected: Nathaniel Wallich in the North-Eastern Frontier of British India

Abstract: This paper wishes to explore the tensions between the logic of scientific collection, the art of making a frontier and the culture of recording experiences through a critical reconsideration of Nathaniel Wallich's famous travels across the north-eastern frontier of British India in the early eighteenth thirties. At one level, this is an effort to complicate the easy collapse of science into colonialism, exploration into extraction, and experience into textual surface. At another, this paper also raises the question of limits and travels. How the commercial mandate of the Tea Committee circumscribed Wallich's botanical investigations, how the imperative of state making was in turn constrained by the conflicting findings of Wallich and his colleagues in the Scientific Deputation, and how the physical experience of travelling in the frontier unsettled the limits of the textual archive that grew out of it: these are some of the questions that this paper addresses. I would like to particularly focus on Wallich's pursuits of tea and rubber, the two

commodities which eventually became the main exports from British Assam. In taking an issue with the standard approach to histories of colonial collections that routinely underplays the constitutive experience of travel in the production of scientific archives, my paper tries to raise a set of wider questions about the ethics and politics of approaching the archive that Wallich has left us. My sources consist of government documents, Tea Committee papers, Wallich's journals and scientific essays.

Biography: Bodhisattva Kar is Fellow in History at the Centre for Studies in Social Sciences, Calcutta, and Research Fellow at the International Institute of Social History, Amsterdam

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Sangeeta Rajbhandary, Krishna K. Shrestha, and Mark F. Watson

Wallich and the first explorations of the Nepalese flora

Abstract: In western eyes Nepal remained an enigmatic *terra incognita* until the end of the 18th Century when a Chinese invasion gave the Honorable East India Company (EIC) the opportunity to send a mediating diplomatic mission to Kathmandu in 1793. William Kirkpatrick led this seven-week expedition, accompanied by surgeon-naturalist Adam Freer. Although no botanical collections are known from this expedition, Edinburgh-trained Freer would have taken notes and these probably formed the basis of discussions on medicinal plants in Kirkpatrick's *An Account of the Kingdom of Nepal* (1811).

The signing of an Anglo-Gurkha trade treaty in 1801 provided a better opportunity for exploration and when Captain Knox took up the post of Resident in Kathmandu in 1802 he took with him Francis Buchanan, another surgeon-naturalist and Edinburgh alumnus. Buchanan (later Hamilton, and known botanically as Buchanan-Hamilton) made good use of his 14-month stay in Nepal, recording over 1100 species, collecting some 1500 herbarium specimens (mostly now at LINN-SMITH and BM), preparing over 100 coloured drawings (LINN) and sending over 100 batches of seed and living material back to William Roxburgh in Calcutta. In 1810 and 1813/14 Buchanan was stationed close to the Nepalese frontier and took the opportunity to send local collectors over the border to gather economically important plants. Buchanan acquired specimens of a further 100 Nepalese species this way, forming part of his Bengal Survey collections of more than 2000 specimens which Nathaniel Wallich distributed as part of the EIC Herbarium. Buchanan retained a duplicate set for himself that is now at E.

After the Anglo-Gurkha war in 1816, at Buchanan's request, Wallich arranged for the new British Resident in Kathmandu, the Hon. Edward Gardner, to send back living plants and herbarium specimens to Wallich in Calcutta. Gardner and his team collected many plants

between 1817-1820, and Wallich sent all the specimens to London (now at LINN-SMITH and BM). Wallich either sent seeds back to Britain (some to Buchanan and RBG Edinburgh) or tried to grow them in the Botanical Garden in Calcutta. Wallich himself visited Nepal in 1820-21, extending the exploration of the Nepalese flora beyond the Kathmandu Valley by employing pilgrims to collect plants up to the alpine zone around Gossainthan (Gossainkund). Wallich amassed more than 1700 herbarium specimens from Nepal and distributed them as part of the EIC Herbarium (K, K-W, BM, E, CAL, G-DC, etc.) in which 1834 plants are from Nepal.

In the following years many hundreds of new species were described from these early collections in publications such as Wallich's *Tentamen florum Nepalensis Illustratae* (1824-26), *Plantae Asiaticae Rariores* (1830-32) and *A Numerical List of dried specimens of Plants in the East India Company* (1828-49). David Don's monumental work *Prodromus Florae Nepalensis* (1825) was based on the collections of Buchanan and Gardner (wrongly attributed to Wallich) and alone accounted for over 800 species. These early collections, particularly those in the Wallich distribution, are very important for the taxonomic study of Nepalese plants, but they are unavailable to botanists in Nepal. To facilitate use of these collections, high quality digital images of the specimens in the UK and scattered around the world are urgently needed.

Biography: Sangeeta Rajbhandary and Krishna Shrestha are plant taxonomists and senior lecturers in the Central Department of Botany, Tribhuvan University. They have a long interest in the historical collections of western botanists in Nepal, including extended study visits to the Natural History Museum, and the Royal Botanic Gardens in Edinburgh and Kew. Mark Watson is also a plant taxonomist, and since 1991 has been based at the Royal Botanic Garden Edinburgh. His expertise lies in Sino-Himalayan Floristics and he is currently Editor-in-Chief of the *Flora of Nepal* project. In recent years he has developed an interest on the often misunderstood historic collections that relate to Nepal, in particular those of Francis Buchanan-Hamilton and Edward Gardner.

Panel 2. Dispersal and Movement within the British Empire

Sandip Hazareesingh

Plants, power and productivity: the East India Company and cotton imperialism in early nineteenth-century western India.

Abstract: This paper will focus on the conquering East India Company's use of power to transfer different varieties of cotton plants from various parts of the world and to seek to acclimatise them in western India in an effort to 'improve' indigenous cotton productivity and 'modernise' Indian agriculture. It will also examine local peasants' responses to these attempts to change their accustomed cultivating and cropping practices.

The existing literature on 'cotton imperialism' has charted the ways in which capitalist transformation of the cotton textile industry in Britain and on the European continent in the nineteenth century led to European powers' attempts to expand cotton production and trade in their globally scattered colonies, and the successes and failures of these attempts. However, there has been little detailed examination of the precise modalities and dimensions of colonial power deployed to secure cotton objectives and of the forms of resistance, both human and non-human, encountered. By focusing on the district of Dharwar in western India, scene of some of the most radical experiments, this paper will show how the cause of cotton improvement generated and mobilised new networks, technologies and ideologies of power including the East India Company's evolving definition of its own mission of governance in India. Colonial 'governmentality' thus came to be fundamentally based on the will to improve and drew on a complex assemblage of power forms that included new modes of administration, changed legal structures and norms of land tenure, as well as the deployment of European botanical knowledge and technical expertise, and of meteorological observations and climate science. However, as this paper will show, colonial rule in the countryside was, in practice, characterised by significant internal contradictions; moreover, cotton cultivators experienced deteriorating livelihoods and proved refractory to improvement schemes, nor were the local climate and soil necessarily amenable to colonial cotton desires.

Biography: I am a lecturer in History at the Open University, having previously taught at Cardiff University, and the author of *The Colonial City and the Challenge of Modernity* (2007). I am a founder member of one of the main Research Centre in the Arts Faculty, the Ferguson Centre for African and Asian Studies which focuses on extra-European histories and cultures. I am also Principal Investigator on a British Academy-funded research project, *Commodities of Empire* (2007-12) which is a collaboration with the Institute for the Study of the Americas, University of London.

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Caroline Cornish

Circulating India: Kew, colonial forestry, and circuits of display

Abstract: The Museum of Economic Botany at the Royal Botanic Gardens, Kew was the idea of the first director, William Jackson Hooker (1785-1865), and opened in 1847; a second museum was added ten years later. With audiences including ‘the merchant, the manufacturer, the physician, the chemist, the druggist, the dyer, the carpenter and cabinet-maker, and artisans of every description’,¹ the object was to instruct British industry on the wealth of plant resources available throughout the Empire. Woods formed a major component of the museum collections from inception and by 1863 a third museum, dedicated to colonial timbers, was opened in the former Orangery.



Museum No. 3 Colonial Timbers c. 1900

Whilst the museums no longer exist, the collections survive as the Economic Botany Collection and provide a rich resource for analysing the movement of collections from South Asia, during and prior to the existence of the Kew museums. Approximately 20,000 specimens of Indian woods are held which were transferred to Kew from EIC officers, the former India Museum, Indian botanic gardens, and numerous other institutions in the sub-continent. Many of the best-known names in imperial botany are represented in them, including Nathaniel Wallich, William Roxburgh, Joseph Hooker, Thomas Anderson, and Hugh Cleghorn.

In this paper, Kew’s Indian woods are considered in two contexts: firstly, the rise of Indian forestry; and secondly, the collection and circulation of Indian arts, manufactures, and natural history specimens in both colony and metropole, what Saloni Mathur refers to as

¹ Hooker, W. J. 1855: 3, *Museum of Economic Botany, or, A Popular Guide to the Useful and Remarkable Vegetable Products of the Museum of the Royal Gardens of Kew* London: Longman, Brown, Green, and Longmans

‘cosmopolitan circuits of exhibition and display’.² I then trace the ‘circuits’ taken by selected groups of objects, identifying the human actors who collaborated in their mobilisation, considering their sites of display, and thus gaining a greater understanding of how the Kew museums contributed to the circulation of India.

What emerges is a decentralised view of the forms in which knowledge of India – objects, texts, images, people – circulated within India, between India and other colonies and sovereign states, and within the imperial metropole, in the nineteenth century. This approach inevitably calls into play the role played by indigenous Indians in the production and circulation of scientific knowledge of the subcontinent, and results in a re-inscription of indigenous agency into the narrative of circulating India.

Biography: Caroline Cornish is a third year PhD student at Royal Holloway, University of London, and a holder of a Thomas Holloway Research Scholarship. Her research project – ‘Collecting and Curating Science in an Age of Empire’ – is focussed on the Kew Museums of Botany from 1847-1939 and is conducted in collaboration with the Royal Botanic Gardens, Kew. In October she will undertake a research trip to India to examine historic sites of collecting and displaying economic botany in the sub-continent. She has previously worked in museums and collections at national and regional level.

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Kapil Raj

Natural History Illustrations from south Asia in the Natural History Museum, the Royal Botanic Gardens, Kew, and the British Library: Uses and Potentials

Abstract: Between July and September 2011, I had the honour of spending two and a half months as a resident research fellow at the Centre for Arts and Humanities Research of the Natural History Museum, London. This fellowship, which was the culmination of the "Wallich and Indian Natural History" project, was intended to review the South Asian natural history drawings, often executed by indigenous artists, held at the three recipients of the World Collections Programme grant for the Wallich project. These drawings and paintings number nearly 30,000 items in the three London institutions alone. In this talk, I shall focus on the highly enriching experience of working collectively with members of the staff at the NHM, where I spent most of my time, the working conditions and facilities, the nature of the collections, and above all, some of the directions and themes for future research using these vast, invaluable

² Mathur, S. 2007:9, *India by Design: Colonial History and Cultural Display* Berkeley, LA, London: University of California Press.

collections to throw new light on the global history of natural history, the historical anthropology of intercultural encounter and imperial and colonial history in general.

Biography: Kapil Raj is Directeur d'études (Research Professor) at the Ecole des Hautes Etudes en Sciences Sociales in Paris. He is attached to the Alexander Koyré Centre for the History of Science of which he is currently co-director. His research focuses on the construction of scientific knowledge through the circulation and encounter of South Asian and European specialised practitioners and their skills in the early modern and modern periods, the subject of his recent book, *Relocating Modern Science* (2007) and of a collective work entitled *The Brokered World* (2009). He is currently engaged in writing his next book on the urban and knowledge dynamics of Calcutta in the 18th century.

Panel 3. The Wallich Project

Henry Noltie

Scottish surgeons and Indian botany: dispersed collections of drawings and specimens, a case study from the Royal Botanic Garden Edinburgh

Abstract: In the library of the Royal Botanic Garden Edinburgh is a gigantic filing system known as the 'Illustrations' or 'Cuttings' Collection. This contained about 250,000 herbarium sheets bearing visual representations of plants, ranging from newspaper cuttings to original drawings. Used as a taxonomic tool (to supplement herbarium specimens) the arrangement was purely taxonomic, with all related historical information on artists, patrons, original collections and provenance lost. Familiar with the collection from his Indian taxonomic studies, the author, in 1998, started to extract and reorganise a vast corpus of more or less entirely unknown drawings by Indian artists, as it was only by reconstituting the original collections that their history and significance could be reconstructed – in some ways analogous to making a natural classification to replace an artificial one based on the single 'character' of the name of the plant depicted. The largest part of the Indian material emerged once to have formed a diverse collection assembled by the pioneering Indian forest conservator H.F.C. Cleghorn (1820–1895) containing literally thousands of original drawings made from life, and tracings from botanical works, documenting his travels and researches, some used for teaching purposes at the Madras Medical College, and some relating to the Madras Exhibitions of the 1850s. But far more emerged: notably a collection of drawings made for Alexander Gibson (1800–1867), another pioneering forest conservator, relating both to his forest travels in Western India and the garden of the Bombay Presidency that he superintended at Dapuri. Of pre-eminent taxonomic importance were the drawings made by two Telugu artists, Rughiah and Govindoo, for the Madras surgeon Robert Wight (1796–1872). Major monographs on the Gibson and Wight collections have resulted. In this talk I will discuss how this research was undertaken, in order to rediscover the histories of these collections, and to re-establish links between the drawings with drawings in other collections, with related documentary sources, and with herbarium specimens, in Scotland, England (especially Kew, the Natural History Museum and the British Library) and India, together with field excursions to the sites where the work (in many ways a joint Indian-British enterprise) was originally created. The talk will also discuss the importance of the copying of drawings and the transmission of visual knowledge – in particular the role of Nathaniel Wallich in the creation of two sets of copies made from the pre-eminent Roxburgh Icones at Calcutta Botanic Garden. This will illuminate both positive and negative aspects of Wallich's enigmatic character.

Biography: Henry Noltie has been based at the Royal Botanic Garden Edinburgh since 1986. With degrees both in botany and museum studies, his work has included taxonomy (specialising on monocots of the Sino-Himalayan region) and curating exhibitions relating to the RBGE's historical collections. For the last decade his work has revolved around the history of Indian botany, especially on the drawings made for Scottish East India Company surgeons by Indian artists.

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Antonia Moon and Charlie Jarvis

Wallich's papers at the British Library and beyond

Abstract: This paper introduces the 110 files of India Office Records now digitised for the Wallich project. Ranging from reports and travel accounts to letters and financial statements, these records are a major source of information on Wallich's career: a direct result of the insistence by the East India Company's directors that every action of its servants in India be fully reported back to London. We shall explain the administrative context of the documents, draw attention to some of the themes contained within them, and suggest possibilities for new research that their digitisation opens up. We shall briefly compare this collection to Wallich's surviving papers in Calcutta, and indicate further sources where relevant material might be found.

Biography: Antonia Moon is Lead Curator, India Office Records (post-1858) at the British Library. She has a particular interest in the archives of colonial science and has led the Library's contribution to the Wallich project.

Charlie Jarvis is a botanist working at the Natural History Museum in London. He has published extensively on the botanical binomial names published by Carl Linnaeus and the herbarium collections, books and manuscripts that contributed to Linnaeus' understanding of these numerous species. The biological collections of Hans Sloane are a current research interest. He is also scientific co-ordinator of the Museum's Centre for Arts and Humanities Research.

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Timothy Utteridge, Clare Drinkell, and Raneer Prakash

The Wallich plant illustrations in London: identification and dissemination

Abstract: The Royal Botanic Gardens, Kew and the Natural History Museum, London have extensive holdings of historic plant specimens and associated collections such as illustrations. Recently, both institutes identified several hundred Wallich unpublished illustrations in their collections that had never been properly named. This talk will discuss the project, particularly from a botanical science view and discuss the naming and origins of the illustrations (mostly from Wallich's trip in Nepal and others from the Calcutta gardens), and show some images of herbarium material that match the illustrations that have been scanned, databased and now be made online. In addition the use of the illustrations in publications will be briefly discussed.

Biography:

Dr. Timothy Utteridge. SE Asia Regional Team, Herbarium, Library, Art and Archives, Royal Botanic Gardens, Kew.

Tim is the Acting Head of the South-East Asia team at Kew with interests in several families in the region, especially the Icacinaceae and tropical Primulaceae. Tim was Kew's Wallich illustration project key staff member who identified the illustrations and attempted to match them to extant herbarium material. Tim has recently taken over the role of the curator of the East India Company Herbarium at Kew (often referred to as the Wallich collection).

Clare Drinkell. SE Asia Regional Team, Herbarium, Library, Art and Archives, Royal Botanic Gardens, Kew.

Clare is an assistant botanist at the Royal Botanic Gardens, Kew with an interest in the tropical Primulaceae and Ebenaceae of South-East Asia. Clare was Kew's Wallich illustration project key staff member who databased and digitized those specimens associated with the illustrations.

Raneer Prakash. Curator-Flowering Plants, Department of Botany, the Natural History Museum.

Raneer is a curator at the Natural History Museum with a strong interest in the plants of the Indian subcontinent. Before moving to the Natural History Museum, Raneer was a member of the team at Kew that initiated and conducted a major digitization programme of the world's most important herbarium specimens - the type specimens. Raneer was the Natural History Museum's Wallich illustration project key staff member who identified and digitized those specimens associated with the illustrations.

Centre for Arts and Humanities Research (CAHR)

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Wallich and Indian Natural History: Collection Dispersal and the Cultivation of Knowledge

In partnership with the Royal Botanic Gardens, Kew, and the British Library
Funded by the World Collections Programme

6th–7th December, 2011

6th December: Natural History Museum, London

7th December: Royal Botanic Gardens, Kew

Conference Information Pack



Contents

Welcome from the Centre for Arts and Humanities Research at the Natural History Museum	2
Conference Abstract	5
Maps and directions to the Museum	6
Maps and directions to Kew	7
Registration details	9
Conference Details: Tuesday, 6 th December	10
Conference Details: Wednesday, 7 th December	12
Conference Speakers: Abstracts and Biographies	13

Welcome from the Centre for Arts and Humanities Research (CAHR) at The Natural History Museum

We are delighted to welcome you to the conference to celebrate our “Wallich and Indian Natural History” project, a collaboration between our Centre at the Natural History Museum (NHM), the Royal Botanic Gardens, Kew and the British Library. We very much hope that you enjoy the conference, the first NHM inter-institutional collaboration of its kind, and are inspired by the interdisciplinary research both in development and already conducted.

Our “Wallich and Indian Natural History” project website can be accessed via the following link: <http://www.kew.org/wallich>. An audio-recording of our conference will be made available after the conference, online via the academic audio-recording company Backdoor Broadcasting: <http://www.backdoorbroadcasting.net>, should you wish to further reflect on the presentations given.

A brief history of CAHR: In 2007, the ‘New Perspectives’ project was developed at the Museum in collaboration with Kingston University and funded by the Arts and Humanities Research Council (AHRC). This project invited academics from selected universities to give a high-level assessment of the potential for the Museum’s specimens, and the library, art and archives collections, to be used as a resource for arts and humanities research. The report that was delivered to the AHRC and the Museum concluded that there was “a dazzling opportunity” to undertake research in these disciplines that would be of international significance and complement the scientific research output at the NHM, and it was recommended that the Centre for Arts and Humanities Research be established to support such research.

Selected projects: Over the past four years, the CAHR team has managed a number of collaborative research projects:

Museum Lives: Museum Lives has been a three-year project knowledge transfer partnership conducted in collaboration with Kingston University. Funded by AHRC, it is the largest oral history project that this Research Council has ever supported. The aim of the project has been to make available the NHM’s collections and institutional knowledge in a major research archive, providing human and cultural insight into the Museum through a series of 50 interviews with senior Museum staff. The methodology and outputs of this project were highlighted at a conference earlier this year, jointly hosted with the Royal Society. This is available online as an audio archive:

<http://backdoorbroadcasting.net/2011/06/science-voices-scientists-speak-about-science-and-themselves/>. In February 2012, CAHR will launch a project website which will include 120 clips, each describing thematically diverse aspects of Museum life.

Scott's Last Expedition: CAHR has provided research support for this travelling exhibition which will open in the Museum in January 2012. On behalf of the Public Engagement Group at the Museum, CAHR worked with the Scott Polar Research Institute at Cambridge University to locate relevant collections and commission an assessment of the science of Captain Scott's expeditions. This successful collaboration has generated a report focusing on three key areas of the expedition and has contributed significantly to the design and content of this public exhibition.

Reconstructing Sloane: The vast collections of Sir Hans Sloane (1660–1753) were the primary part of the founding collection of the British Museum at its opening in 1759. However, the transfer of the animal, plant, mineral and fossil specimens to the Natural History Museum in 1881, and of Sloane's library and manuscripts to the British Library in the twentieth century, caused a major fragmentation which has had a detrimental effect on the study and understanding of this incomparable early modern collection. In collaboration with the British Museum and the British Library, we are developing a large-scale project aimed at unlocking the huge potential of this dispersed Sloane archive for interdisciplinary research.

In undertaking a broad spectrum of projects, CAHR is seeking to complement the high-quality scientific work undertaken at the Museum with humanities methodologies. This, we hope, will enrich deeper structural understandings of the Museum's collections and practices, supporting interdisciplinary research projects with a variety of research institutions around fundable and significant issues.

What CAHR offers for academic researchers:

CAHR aims to enable and promote research into the Museum's collections by researchers in arts and humanities disciplines.

In 2012, we will be hosting five research fellowships funded by Kingston University. Five academics from UK higher education institutes (HEIs) will come to the Museum for a period of up to three months, to study and assess an aspect of the Museum's collections within the context of one of CAHR's Project Themes (i.e. Global History, Visual Art, Literature and Texts, Philosophy and Ethics, Museology).

We want to hear from you! If you are an Arts or Humanities scholar interested in collaborating with CAHR on an interdisciplinary project, please contact the CAHR team with your proposal.

Conference Abstract

This international conference will be held on the 6th and 7th December, 2011, on the general theme of South Asian natural history collections with a special emphasis on those of the Danish botanist Nathaniel Wallich (1786-1854), a major figure in the history and development of botany in the nineteenth century. As Superintendent of the Calcutta Botanic Garden (1817-1846), he undertook botanical expeditions, described new plant species, amassed a large herbarium, collected thousands of plant specimens and commissioned local artists to draw beautiful botanical watercolours. His work has consequently been highly influential in South Asian natural history research.

Major South Asian natural history collections from the 18th and 19th century are now dispersed across institutions in South Asia, Europe and beyond. The conference will explore the challenges associated with exploiting such collections and the interesting opportunities they provide for interdisciplinary research. In particular, the conference will consider the experience of the current “Wallich and Indian Natural History” project as an interesting exemplar (a collaboration between the Natural History Museum, the Royal Botanic Gardens, Kew and the British Library).

Hosted by the Natural History Museum and the Royal Botanic Gardens, Kew this conference is an integral part in the World Collections Programme-funded project “Wallich and Indian Natural History”.

Day One, 6th December

The first day of the conference will be held at the Natural History Museum, and will be structured into three speaker sessions. The themes for these sessions are:

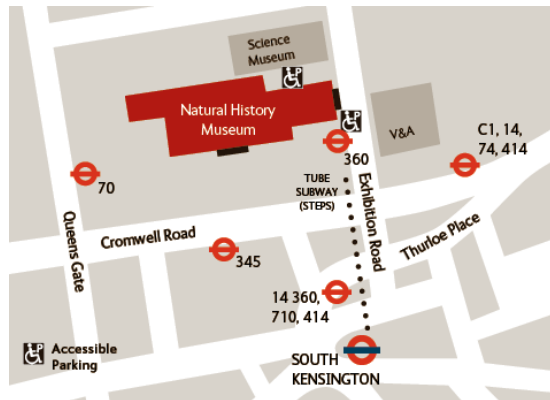
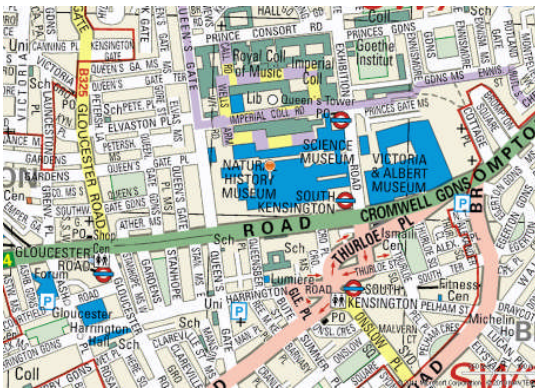
- 1) Nathaniel Wallich: His Expeditions and Collections
- 2) Dispersal and Movement within the British Empire
- 3) The Wallich Project

Day Two, 7th December

Morning: Free time to visit the Royal Botanic Gardens, Kew.
Afternoon: Workshops and private viewings of Wallich material.

A breakdown of both these days can be found on subsequent pages.

Maps and Directions to the Museum



Directions

There are many ways to reach us:

By tube: We are within walking distance of South Kensington station on the District, Circle and Piccadilly lines.

By bus: Routes 14, 49, 70, 74, 345, 360, 414 and C1 stop near us. Some tour buses also pass nearby

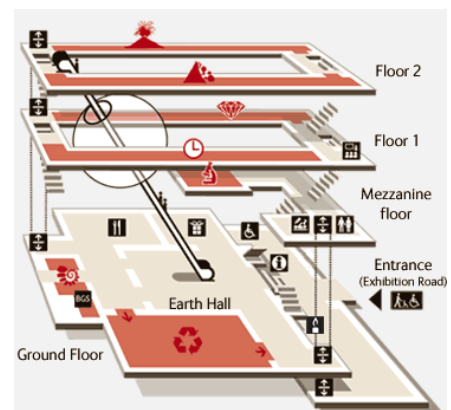
By bicycle: Routes 14, 49, 70, 74, 345, 360, 414 and C1 stop near us. Some tour buses also pass nearby

By coach: Victoria Coach Station is within walking distance of Victoria train and tube station on the Circle or District lines. For groups travelling by coach, there is a coach drop-off point outside the Cromwell Road entrance

By car: Driving to the Museum is not easy and parking is expensive, there is limited meter parking on Exhibition Road

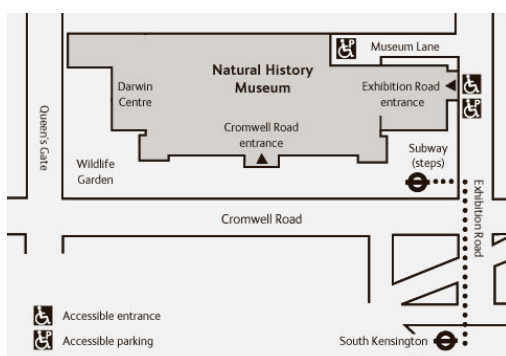
Use the **Exhibition Road** entrance for entry to the Flett Theatre. Once you arrive, go up the staircase to your left (just before the **Visions of Earth** gallery).

The **Flett Theatre** is on the First Floor, through the double-doors on the left-hand side.

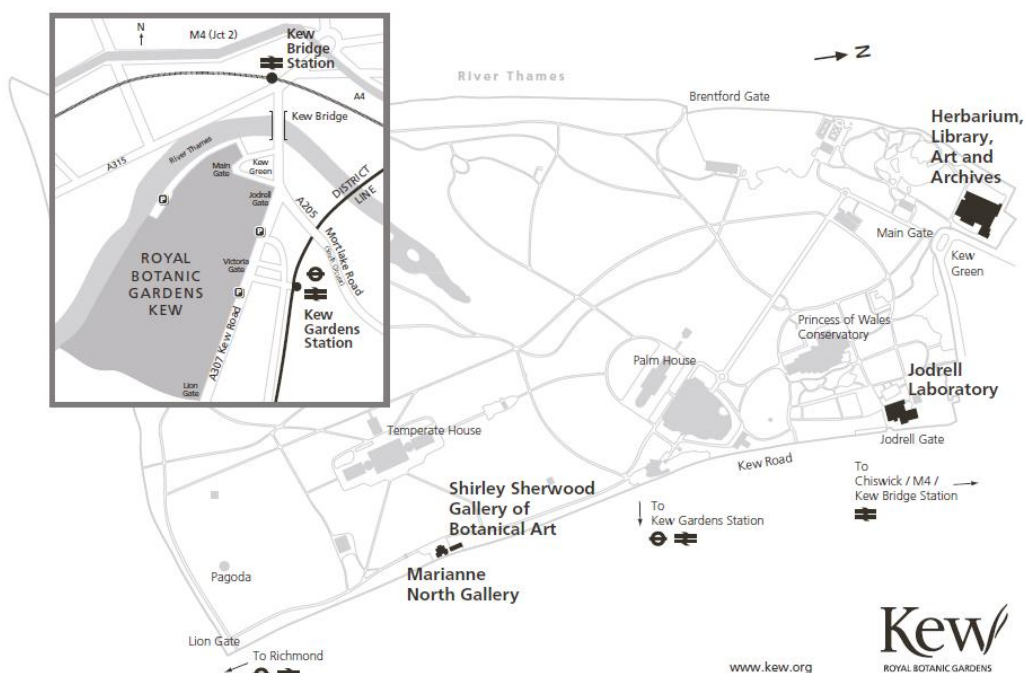


Key	
	Earth Lab
	Earth's Treasury gallery
	Lasting Impressions gallery
	Restless Surface gallery
	Earth Today and Tomorrow gallery
	From the Beginning gallery
	The Power Within gallery
	Earth Hall

Facilities			
	Toilets		Accessible toilets
	Lifts		Cloakroom
	Information and tickets		Shop
	Sandwich bar		BGS British Geological Survey
	Flett Events Theatre		Baby care room
	Faith Room		



Maps and Directions to Kew



A Note on Parking

Please note that parking is available along the Kew Road from 10am onwards. You may park on the Green at anytime but places here are very limited. Parking in the surrounding side streets is only possible from 12 or 1pm onwards, depending on the road.

Visiting Kew in the Morning

Please show your conference pass at either the Main or Victoria Gates to gain free access to the Gardens in the morning.

If you do visit the Gardens in the morning you might particularly like to visit the Shirley Sherwood Gallery to see the recently opened exhibition on Sir Joseph Hooker, celebrating the centenary of his death <http://www.kew.org/visit-kew-gardens/whats-on/joseph-hooker-naturalist-traveller-and-more.htm> Adjacent is the Marianne North Gallery, which earlier this year reopened after the complete restoration of the building and conservation of the collection. If you have not been to the Marianne North Gallery before it is worth a visit as in both the style of painting and how they are displayed it is a unique Victorian triumph. <http://www.kew.org/visit-kew-gardens/garden-attractions-A-Z/marianne-north-gallery.htm>

Afternoon Conference Session

For the afternoon show and tell session, please assemble at the Herbarium and Library Building Reception at 14:15. To access this you should use the separate gates to this building on Kew Green. If you are coming from the Gardens, the easiest route to exit the gardens is via the Main Gate. The Herbarium and Library gates are just 50m away on the left.

Registration details

Registration will take place from 10:00–10:20, on 6th December in the Flett Lecture Theatre Foyer, Earth Gallery, the Natural History Museum, London.

The Registration Desk and Lecture Theatre will both be sign-posted from the Museum's side-entrance at Exhibition Road. There are cloakroom facilities adjacent to the Theatre Foyer.

On registration, you will receive a delegate pack containing:

- your name badge
- all conference information
- materials on future conferences at the Natural History Museum, the Royal Botanic Gardens, Kew and the British Library.

When at the conference, please wear your delegate badge at all times. Delegates not wearing a badge will not be admitted to the Flett Lecture Theatre or Foyer, and will not be able to attend our panel sessions.

All refreshments including morning coffees, lunch and our afternoon reception are included in the delegate fee and will be made available in the Flett Theatre Foyer.

Unfortunately we are unable to cater for any special dietary requirements.

Conference Details: Tuesday, 6th December

Flett Theatre, Natural History Museum, London

10:00–10:20 Coffee and Registration in the Flett Theatre Foyer, Natural History Museum Main Building (Earth Galleries)

10:20–10:30 Welcome (Professor Phil Rainbow, Keeper of Zoology, NHM)

10:30–10:40 Opening Remarks (Julie Harvey, CAHR Centre Manager, NHM)

10:40–12:10 **Panel 1. Nathaniel Wallich: His Expeditions and Collections**

Chair: B. Venugopal, Director, National Natural History Museum, New Delhi, India

David Arnold Nathaniel Wallich and the Natural History of India

Bodhisattva Kar Frontier, Collected: Nathaniel Wallich in the North-Eastern Frontier of British India

Sangeeta Rajbhandary, Krishna K. Shrestha, Mark F. Watson Wallich and the first explorations of the Nepalese flora

12:10–13:10 Buffet lunch in the Flett Theatre Foyer

13:10–14:40 **Panel 2. Dispersal and Movement within the British Empire**

Chair: Professor Felix Driver, Professor of Human Geography, Royal Holloway, University of London

Sandip Hazareesingh Plants, power and productivity: the East India Company and Cotton Imperialism in Early nineteenth-century western India

	Caroline Cornish	Circulating India: Kew, colonial forestry and circuits of display
	Kapil Raj	Natural History Illustrations from south Asia in the Natural History Museum, the Royal Botanic Gardens, Kew, and the British Library: Uses and Potentials
14:40–14:55	Tea and coffee in the Flett Theatre Foyer	
14:55–16:25	Panel 3. The Wallich Project	
Chair: Dr Vinita Damodaran, Senior Lecturer in South Asian History, University of Sussex		
	Henry Noltie	Scottish surgeons and Indian botany: dispersed collections of drawings and specimens, a case study from the Royal Botanic Garden Edinburgh
	Antonia Moon and Charlie Jarvis	Wallich's papers at the British Library and beyond
	Timothy Utteridge, Clare Drinkell and Ranee Prakash	The Wallich plant illustrations in London: identification and dissemination
16:25–16:45	Closing Remarks (Julie Harvey, CAHR Centre Manager, NHM)	
16:45–17:30	Tea in the Flett Theatre Foyer	

Please note: In each panel, papers will be 25 minutes each, with 15 minutes allocated for question time at the end. All panel sessions will take place in the Flett Theatre.

Conference Details: Wednesday, 7th December

Royal Botanic Gardens, Kew

9:30–14:15 **Free time:** Delegates are offered free access to the Gardens from 9:30, when the Gardens open. To obtain free access you will need to show your conference badge to the staff at the entrance. Please use either the Victoria Gate or Main Gate entrances.

Please visit <http://www.kew.org> to help plan your time. We would recommend a visit to both the Marianne North Gallery, which was reopened earlier this year following a full restoration back to its original design, and also to the adjacent Shirley Sherwood Gallery which has an exhibition – Joseph Hooker – naturalist, traveller and more -marking the centenary of Hooker's death.

14:15–14:30 Please assemble in the Reception of the Herbarium & Library Building, [Entrance on Kew Green]

14:30–17:00 **Workshops:** Delegates will be formed into groups and each group will be taken through parts of both the original Herbarium Building and the latest extension which opened last year.

Kew's Wallich related collections will be set out at four points around the building, where staff responsible for the collection will talk on the items on display and provide an opportunity for discussion.

Groups will have up to 30 minutes at each of the following four points:

Paintings & drawings/books

Manuscripts & Archives

Herbarium Specimens

Items from the Economic Botany Collection and Wood Samples

17:00–18:30 **Conference Reception** in Main Library Reading Room

Conference Speakers: Abstracts and Biographies

Panel 1. Nathaniel Wallich: His Expeditions and Collections

David Arnold

Nathaniel Wallich and the Natural History of India

Abstract: Nathaniel Wallich occupies a critical place in the history of nineteenth-century botany and the colonial investigation of India's natural history. Despite being Danish by birth, he became superintendent of the East India Company's botanic garden in Calcutta in 1815 and for three decades was a central figure in the scientific establishment in India. Well-connected internationally, a leading collector and disseminator of botanical specimens and plant knowledge from South and Southeast Asia, Wallich's career was also one of frustration and failure to achieve the lasting recognition his intellect, perseverance and opportunity seemingly deserved.

Biography: David Arnold has recently retired as Professor of Asian and Global History at the University of Warwick. He has written extensively on the history of science and medicine in British India, including the role of botany. He has considered the importance of Nathaniel Wallich in two works: *The Tropics and the Traveling Gaze: India, Landscape, and Science, 1800-1856* (Seattle: University of Washington Press, 2006), and 'Plant Capitalism and Company Science: The Indian Career of Nathaniel Wallich', *Modern Asian Studies*, 45: 5, 2008, pp. 899-928.

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Bodhisattva Kar

Frontier, Collected: Nathaniel Wallich in the North-Eastern Frontier of British India

Abstract: This paper wishes to explore the tensions between the logic of scientific collection, the art of making a frontier and the culture of recording experiences through a critical reconsideration of Nathaniel Wallich's famous travels across the north-eastern frontier of British India in the early eighteenth thirties. At one level, this is an effort to complicate the easy collapse of science into colonialism, exploration into extraction, and experience into textual surface. At another, this paper also raises the question of limits and travels. How the commercial mandate of the Tea Committee circumscribed Wallich's botanical investigations, how the imperative of state making was in turn constrained by the conflicting findings of Wallich and his colleagues in the Scientific Deputation, and how the physical experience of travelling in the frontier unsettled the limits of the textual archive that grew out of it: these are some of the questions that this paper addresses. I would like to particularly focus on Wallich's pursuits of tea and rubber, the two

commodities which eventually became the main exports from British Assam. In taking an issue with the standard approach to histories of colonial collections that routinely underplays the constitutive experience of travel in the production of scientific archives, my paper tries to raise a set of wider questions about the ethics and politics of approaching the archive that Wallich has left us. My sources consist of government documents, Tea Committee papers, Wallich's journals and scientific essays.

Biography: Bodhisattva Kar is Fellow in History at the Centre for Studies in Social Sciences, Calcutta, and Research Fellow at the International Institute of Social History, Amsterdam

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Sangeeta Rajbhandary, Krishna K. Shrestha, and Mark F. Watson

Wallich and the first explorations of the Nepalese flora

Abstract: In western eyes Nepal remained an enigmatic *terra incognita* until the end of the 18th Century when a Chinese invasion gave the Honorable East India Company (EIC) the opportunity to send a mediating diplomatic mission to Kathmandu in 1793. William Kirkpatrick led this seven-week expedition, accompanied by surgeon-naturalist Adam Freer. Although no botanical collections are known from this expedition, Edinburgh-trained Freer would have taken notes and these probably formed the basis of discussions on medicinal plants in Kirkpatrick's *An Account of the Kingdom of Nepal* (1811).

The signing of an Anglo-Gurkha trade treaty in 1801 provided a better opportunity for exploration and when Captain Knox took up the post of Resident in Kathmandu in 1802 he took with him Francis Buchanan, another surgeon-naturalist and Edinburgh alumnus. Buchanan (later Hamilton, and known botanically as Buchanan-Hamilton) made good use of his 14-month stay in Nepal, recording over 1100 species, collecting some 1500 herbarium specimens (mostly now at LINN-SMITH and BM), preparing over 100 coloured drawings (LINN) and sending over 100 batches of seed and living material back to William Roxburgh in Calcutta. In 1810 and 1813/14 Buchanan was stationed close to the Nepalese frontier and took the opportunity to send local collectors over the border to gather economically important plants. Buchanan acquired specimens of a further 100 Nepalese species this way, forming part of his Bengal Survey collections of more than 2000 specimens which Nathaniel Wallich distributed as part of the EIC Herbarium. Buchanan retained a duplicate set for himself that is now at E.

After the Anglo-Gurkha war in 1816, at Buchanan's request, Wallich arranged for the new British Resident in Kathmandu, the Hon. Edward Gardner, to send back living plants and herbarium specimens to Wallich in Calcutta. Gardner and his team collected many plants

between 1817-1820, and Wallich sent all the specimens to London (now at LINN-SMITH and BM). Wallich either sent seeds back to Britain (some to Buchanan and RBG Edinburgh) or tried to grow them in the Botanical Garden in Calcutta. Wallich himself visited Nepal in 1820-21, extending the exploration of the Nepalese flora beyond the Kathmandu Valley by employing pilgrims to collect plants up to the alpine zone around Gossainthan (Gossainkund). Wallich amassed more than 1700 herbarium specimens from Nepal and distributed them as part of the EIC Herbarium (K, K-W, BM, E, CAL, G-DC, etc.) in which 1834 plants are from Nepal.

In the following years many hundreds of new species were described from these early collections in publications such as Wallich's *Tentamen florae Nepalensis Illustratae* (1824-26), *Plantae Asiaticae Rariores* (1830-32) and *A Numerical List of dried specimens of Plants in the East India Company* (1828-49). David Don's monumental work *Prodromus Florae Nepalensis* (1825) was based on the collections of Buchanan and Gardner (wrongly attributed to Wallich) and alone accounted for over 800 species. These early collections, particularly those in the Wallich distribution, are very important for the taxonomic study of Nepalese plants, but they are unavailable to botanists in Nepal. To facilitate use of these collections, high quality digital images of the specimens in the UK and scattered around the world are urgently needed.

Biography: Sangeeta Rajbhandary and Krishna Shrestha are plant taxonomists and senior lecturers in the Central Department of Botany, Tribhuvan University. They have a long interest in the historical collections of western botanists in Nepal, including extended study visits to the Natural History Museum, and the Royal Botanic Gardens in Edinburgh and Kew. Mark Watson is also a plant taxonomist, and since 1991 has been based at the Royal Botanic Garden Edinburgh. His expertise lies in Sino-Himalayan Floristics and he is currently Editor-in-Chief of the *Flora of Nepal* project. In recent years he has developed an interest on the often misunderstood historic collections that relate to Nepal, in particular those of Francis Buchanan-Hamilton and Edward Gardner.

Panel 2. Dispersal and Movement within the British Empire

Sandip Hazareesingh

Plants, power and productivity: the East India Company and cotton imperialism in early nineteenth-century western India.

Abstract: This paper will focus on the conquering East India Company's use of power to transfer different varieties of cotton plants from various parts of the world and to seek to acclimatise them in western India in an effort to 'improve' indigenous cotton productivity and 'modernise' Indian agriculture. It will also examine local peasants' responses to these attempts to change their accustomed cultivating and cropping practices.

The existing literature on 'cotton imperialism' has charted the ways in which capitalist transformation of the cotton textile industry in Britain and on the European continent in the nineteenth century led to European powers' attempts to expand cotton production and trade in their globally scattered colonies, and the successes and failures of these attempts. However, there has been little detailed examination of the precise modalities and dimensions of colonial power deployed to secure cotton objectives and of the forms of resistance, both human and non-human, encountered. By focusing on the district of Dharwar in western India, scene of some of the most radical experiments, this paper will show how the cause of cotton improvement generated and mobilised new networks, technologies and ideologies of power including the East India Company's evolving definition of its own mission of governance in India. Colonial 'governmentality' thus came to be fundamentally based on the will to improve and drew on a complex assemblage of power forms that included new modes of administration, changed legal structures and norms of land tenure, as well as the deployment of European botanical knowledge and technical expertise, and of meteorological observations and climate science. However, as this paper will show, colonial rule in the countryside was, in practice, characterised by significant internal contradictions; moreover, cotton cultivators experienced deteriorating livelihoods and proved refractory to improvement schemes, nor were the local climate and soil necessarily amenable to colonial cotton desires.

Biography: I am a lecturer in History at the Open University, having previously taught at Cardiff University, and the author of *The Colonial City and the Challenge of Modernity* (2007). I am a founder member of one of the main Research Centre in the Arts Faculty, the Ferguson Centre for African and Asian Studies which focuses on extra-European histories and cultures. I am also Principal Investigator on a British Academy-funded research project, *Commodities of Empire* (2007-12) which is a collaboration with the Institute for the Study of the Americas, University of London.

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Caroline Cornish

Circulating India: Kew, colonial forestry, and circuits of display

Abstract: The Museum of Economic Botany at the Royal Botanic Gardens, Kew was the idea of the first director, William Jackson Hooker (1785-1865), and opened in 1847; a second museum was added ten years later. With audiences including ‘the merchant, the manufacturer, the physician, the chemist, the druggist, the dyer, the carpenter and cabinet-maker, and artisans of every description’,¹ the object was to instruct British industry on the wealth of plant resources available throughout the Empire. Woods formed a major component of the museum collections from inception and by 1863 a third museum, dedicated to colonial timbers, was opened in the former Orangery.



Museum No. 3 Colonial Timbers c. 1900

Whilst the museums no longer exist, the collections survive as the Economic Botany Collection and provide a rich resource for analysing the movement of collections from South Asia, during and prior to the existence of the Kew museums. Approximately 20,000 specimens of Indian woods are held which were transferred to Kew from EIC officers, the former India Museum, Indian botanic gardens, and numerous other institutions in the sub-continent. Many of the best-known names in imperial botany are represented in them, including Nathaniel Wallich, William Roxburgh, Joseph Hooker, Thomas Anderson, and Hugh Cleghorn.

In this paper, Kew’s Indian woods are considered in two contexts: firstly, the rise of Indian forestry; and secondly, the collection and circulation of Indian arts, manufactures, and natural history specimens in both colony and metropole, what Saloni Mathur refers to as

¹ Hooker, W. J. 1855: 3, *Museum of Economic Botany, or, A Popular Guide to the Useful and Remarkable Vegetable Products of the Museum of the Royal Gardens of Kew* London: Longman, Brown, Green, and Longmans

‘cosmopolitan circuits of exhibition and display’.² I then trace the ‘circuits’ taken by selected groups of objects, identifying the human actors who collaborated in their mobilisation, considering their sites of display, and thus gaining a greater understanding of how the Kew museums contributed to the circulation of India.

What emerges is a decentralised view of the forms in which knowledge of India – objects, texts, images, people – circulated within India, between India and other colonies and sovereign states, and within the imperial metropole, in the nineteenth century. This approach inevitably calls into play the role played by indigenous Indians in the production and circulation of scientific knowledge of the subcontinent, and results in a re-inscription of indigenous agency into the narrative of circulating India.

Biography: Caroline Cornish is a third year PhD student at Royal Holloway, University of London, and a holder of a Thomas Holloway Research Scholarship. Her research project – ‘Collecting and Curating Science in an Age of Empire’ – is focussed on the Kew Museums of Botany from 1847-1939 and is conducted in collaboration with the Royal Botanic Gardens, Kew. In October she will undertake a research trip to India to examine historic sites of collecting and displaying economic botany in the sub-continent. She has previously worked in museums and collections at national and regional level.

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Kapil Raj

Natural History Illustrations from south Asia in the Natural History Museum, the Royal Botanic Gardens, Kew, and the British Library: Uses and Potentials

Abstract: Between July and September 2011, I had the honour of spending two and a half months as a resident research fellow at the Centre for Arts and Humanities Research of the Natural History Museum, London. This fellowship, which was the culmination of the "Wallich and Indian Natural History" project, was intended to review the South Asian natural history drawings, often executed by indigenous artists, held at the three recipients of the World Collections Programme grant for the Wallich project. These drawings and paintings number nearly 30,000 items in the three London institutions alone. In this talk, I shall focus on the highly enriching experience of working collectively with members of the staff at the NHM, where I spent most of my time, the working conditions and facilities, the nature of the collections, and above all, some of the directions and themes for future research using these vast, invaluable

² Mathur, S. 2007:9, *India by Design: Colonial History and Cultural Display* Berkeley, LA, London: University of California Press.

collections to throw new light on the global history of natural history, the historical anthropology of intercultural encounter and imperial and colonial history in general.

Biography: Kapil Raj is Directeur d'études (Research Professor) at the Ecole des Hautes Etudes en Sciences Sociales in Paris. He is attached to the Alexander Koyré Centre for the History of Science of which he is currently co-director. His research focuses on the construction of scientific knowledge through the circulation and encounter of South Asian and European specialised practitioners and their skills in the early modern and modern periods, the subject of his recent book, *Relocating Modern Science* (2007) and of a collective work entitled *The Brokered World* (2009). He is currently engaged in writing his next book on the urban and knowledge dynamics of Calcutta in the 18th century.

Panel 3. The Wallich Project

Henry Noltie

Scottish surgeons and Indian botany: dispersed collections of drawings and specimens, a case study from the Royal Botanic Garden Edinburgh

Abstract: In the library of the Royal Botanic Garden Edinburgh is a gigantic filing system known as the 'Illustrations' or 'Cuttings' Collection. This contained about 250,000 herbarium sheets bearing visual representations of plants, ranging from newspaper cuttings to original drawings. Used as a taxonomic tool (to supplement herbarium specimens) the arrangement was purely taxonomic, with all related historical information on artists, patrons, original collections and provenance lost. Familiar with the collection from his Indian taxonomic studies, the author, in 1998, started to extract and reorganise a vast corpus of more or less entirely unknown drawings by Indian artists, as it was only by reconstituting the original collections that their history and significance could be reconstructed – in some ways analogous to making a natural classification to replace an artificial one based on the single 'character' of the name of the plant depicted. The largest part of the Indian material emerged once to have formed a diverse collection assembled by the pioneering Indian forest conservator H.F.C. Cleghorn (1820–1895) containing literally thousands of original drawings made from life, and tracings from botanical works, documenting his travels and researches, some used for teaching purposes at the Madras Medical College, and some relating to the Madras Exhibitions of the 1850s. But far more emerged: notably a collection of drawings made for Alexander Gibson (1800–1867), another pioneering forest conservator, relating both to his forest travels in Western India and the garden of the Bombay Presidency that he superintended at Dapuri. Of pre-eminent taxonomic importance were the drawings made by two Telugu artists, Rughiah and Govindoo, for the Madras surgeon Robert Wight (1796–1872). Major monographs on the Gibson and Wight collections have resulted. In this talk I will discuss how this research was undertaken, in order to rediscover the histories of these collections, and to re-establish links between the drawings with drawings in other collections, with related documentary sources, and with herbarium specimens, in Scotland, England (especially Kew, the Natural History Museum and the British Library) and India, together with field excursions to the sites where the work (in many ways a joint Indian-British enterprise) was originally created. The talk will also discuss the importance of the copying of drawings and the transmission of visual knowledge – in particular the role of Nathaniel Wallich in the creation of two sets of copies made from the pre-eminent Roxburgh Icones at Calcutta Botanic Garden. This will illuminate both positive and negative aspects of Wallich's enigmatic character.

Biography: Henry Noltie has been based at the Royal Botanic Garden Edinburgh since 1986. With degrees both in botany and museum studies, his work has included taxonomy (specialising on monocots of the Sino-Himalayan region) and curating exhibitions relating to the RBGE's historical collections. For the last decade his work has revolved around the history of Indian botany, especially on the drawings made for Scottish East India Company surgeons by Indian artists.

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Antonia Moon and Charlie Jarvis

Wallich's papers at the British Library and beyond

Abstract: This paper introduces the 110 files of India Office Records now digitised for the Wallich project. Ranging from reports and travel accounts to letters and financial statements, these records are a major source of information on Wallich's career: a direct result of the insistence by the East India Company's directors that every action of its servants in India be fully reported back to London. We shall explain the administrative context of the documents, draw attention to some of the themes contained within them, and suggest possibilities for new research that their digitisation opens up. We shall briefly compare this collection to Wallich's surviving papers in Calcutta, and indicate further sources where relevant material might be found.

Biography: Antonia Moon is Lead Curator, India Office Records (post-1858) at the British Library. She has a particular interest in the archives of colonial science and has led the Library's contribution to the Wallich project.

Charlie Jarvis is a botanist working at the Natural History Museum in London. He has published extensively on the botanical binomial names published by Carl Linnaeus and the herbarium collections, books and manuscripts that contributed to Linnaeus' understanding of these numerous species. The biological collections of Hans Sloane are a current research interest. He is also scientific co-ordinator of the Museum's Centre for Arts and Humanities Research.

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Timothy Utteridge, Clare Drinkell, and Raneer Prakash

The Wallich plant illustrations in London: identification and dissemination

Abstract: The Royal Botanic Gardens, Kew and the Natural History Museum, London have extensive holdings of historic plant specimens and associated collections such as illustrations. Recently, both institutes identified several hundred Wallich unpublished illustrations in their collections that had never been properly named. This talk will discuss the project, particularly from a botanical science view and discuss the naming and origins of the illustrations (mostly from Wallich's trip in Nepal and others from the Calcutta gardens), and show some images of herbarium material that match the illustrations that have been scanned, databased and now be made online. In addition the use of the illustrations in publications will be briefly discussed.

Biography:

Dr. Timothy Utteridge. SE Asia Regional Team, Herbarium, Library, Art and Archives, Royal Botanic Gardens, Kew.

Tim is the Acting Head of the South-East Asia team at Kew with interests in several families in the region, especially the Icacinaceae and tropical Primulaceae. Tim was Kew's Wallich illustration project key staff member who identified the illustrations and attempted to match them to extant herbarium material. Tim has recently taken over the role of the curator of the East India Company Herbarium at Kew (often referred to as the Wallich collection).

Clare Drinkell. SE Asia Regional Team, Herbarium, Library, Art and Archives, Royal Botanic Gardens, Kew.

Clare is an assistant botanist at the Royal Botanic Gardens, Kew with an interest in the tropical Primulaceae and Ebenaceae of South-East Asia. Clare was Kew's Wallich illustration project key staff member who databased and digitized those specimens associated with the illustrations.

Raneer Prakash. Curator-Flowering Plants, Department of Botany, the Natural History Museum.

Raneer is a curator at the Natural History Museum with a strong interest in the plants of the Indian subcontinent. Before moving to the Natural History Museum, Raneer was a member of the team at Kew that initiated and conducted a major digitization programme of the world's most important herbarium specimens - the type specimens. Raneer was the Natural History Museum's Wallich illustration project key staff member who identified and digitized those specimens associated with the illustrations.

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