

## **TOUR REPORT FOR VISIT TO UNIVERSITY OF SUSSEX AND KEY INSTITUTIONS AT UNITED KINGDOM w.e.f. 10.07.2022 to 22.07.2022.**

Hidden Histories of Science project is an interdisciplinary approach on genetics, cytology, botany and eugenics. It will give key insight to field of post colonialism and imperial science there by leading into the under discussed process of decolonizing science. The project explores the network of scientists E.K. Janaki Ammal, C.D. Darlington and J.B.S. Halden founders of population genetics and revealing the importance of Janaki Ammal within these networks, which will enrich the histories of John Innes Horticultural Institutions (JIC), the Royal Horticultural Society (RHS), the Botanical Survey of India (BSI) and the Sugarcane Breeding Institute, Coimbatore, all where she worked.

The key output of this project will be an exhibition which will have both a digital and physical mode and will focus on this historical movement, formed in collaboration with the JIC. The physical display including facsimiles from British and Indian Archives will be exhibited within the BSI Gallery located at Indian Museum, Kolkata. This exhibition will be visited by provincial schools of Kolkata with whom the Botanical Gallery has a long history, JIC and University of Sussex will share an online version of this exhibition hosted on the University of Sussex website. Another important output will be a conference, planned for January 2023, to disseminate knowledge gained in this project to be held in Kolkata and inaugurate the planned exhibition.

In this connection an invitation was received from Prof. (Dr.) Vinita Damodaran, Director of Center for World Environmental History(CWEH), Department of Media Arts and Humanities, University of Sussex (US) to collaborate with Botanical Survey of India (BSI) for organizing an exhibition at Botanical Gallery, Industrial Section Indian Museum(ISIM) and an international conference on outcome of this Hidden Histories of Science project. As part of this project, I had an invitation to go to University of Sussex to attend discussions on proposed exhibition, with representative from British Library, CWEH, University of Sussex, Archivist of JIC, Royal Botanic Garden Kew (RBG, Kew) on herbarium and Economic botany collections and archives, also to discuss public engagement and conference etc., for 10 days w.e.f. 10.07.2022 to 22.07.2022.

Dr. A.A. Mao, Director, Botanical Survey of India was kind enough to forward my application to the Secretary, MoEF&CC, Govt. of India. The permission to visit University of Sussex received from Ministry vide letter no. F. No.09/04/2022-CSB dated 30<sup>th</sup> June 2022 duly endorsed by Director, Botanical Survey of India. Subsequent Political clearance procured vides ref. no. EPC24052270633GB dated 08.07.2022 from Ministry of External Affairs and FC2 clearance also obtained vide Letter no.070048347LH77 dated 07.07.2022 Ministry of Home Affairs.

### **Under mentioned itinerary was followed during my visit**

Sunday 10<sup>th</sup> July 2022 –Kolkata to London

Monday 11<sup>th</sup> – Introductory meeting at CWEH, Department of Media Arts and Humanities, University of Sussex.

Tuesday 12<sup>th</sup> – Attend ‘Botany, Science and Environmental Histories of South Asia’ conference and deliver a talk on ‘Floristic diversity and noteworthy plants of Arunachal Pradesh’.

Wednesday 13<sup>th</sup> - Visited Royal Pavilion Museum and Garden, Brighton and attended CWEH garden party, for members and friends of CWEH’s networks.

Thursday 14<sup>th</sup> - Camp change from Brighton to London city.

Friday 15<sup>th</sup> - Visited to Natural History Museum, Victoria and Albert Museum.

Sturday 16<sup>th</sup> - Visited British Museum with emphasis on south Asia Gallery.

Sunday 17<sup>th</sup> - No planned activity (visited city parks and popular tourist destination in and around city)

Monday 18<sup>th</sup> - Meeting with Scientists at Kew Herbarium, Economic Botany Gallery, Kew Archives and Kew Botanical Garden.

Tuesday 19<sup>th</sup> - Journey to Norwich and Meeting with John Innes Center archivist and tour of archives.

Wednesday 20<sup>th</sup> - Meeting with South Asia Center at Norwich and returned to London.

Thursday 21<sup>st</sup> – Visit to British Library.

Thursday 22<sup>nd</sup> –Returned from London to Kolkata.

I reached London on 10<sup>th</sup> and took accommodation at Brighton which is about 50kms away from the city. Brighton is a sea shore small peaceful town near to University of Sussex. Brighton is popular for its beautiful long beaches. The presence of about 250m long stretch of black rock cliff beside sea shore preserves one of the best and most accessible sedimentary records of Ice age climate change in north western Europe. The remnants of vegetation, remains of wheals, marine mollusks discarded Neanderthal flint butchery knife has been found here.

On 11<sup>th</sup>, I visited the department of Media, Arts and Humanities, University of Sussex room no. Art A108 where actual meeting took place. A proposed exhibition, display materials, exhibition area, presentation of materials thoroughly discussed with stake holders. Attended one Tapestry exhibition on uncertainty of present day youth of Sundarbans residing in both Bangladesh and India due to frequent cyclones like Aila, Fani etc (effect of climate change), which was launched by CWEH and Media, Arts and Humanities, University of Sussex. About 45 paintings expressing the thought of children from Sundarbans delta and 12 boutique printed cloths also exhibited showing their search for alternative lively hood.

On 12<sup>th</sup>, I attended and delivered a talk on ‘Botany, Science and Environmental Histories of South Asia’ conference. This conference will draw on the themes on the link among botany, genetics, anthropology and empire between 1930 and 1950’s. It also explored historical and

contemporary south Asian perspectives on science and environment including sessions on practices of documenting and interpreting these stories, through traditional archives and new media. There are Nine speakers and conference was in hybrid mode (Physical and online) about 67 participants from different fields (Art, Archeology, Anthropology, History, Archivist, Botanist, Museologist and others) was there. The topic and speakers are as follows **1.** Antonia Moon-Sources for Botany in the India office Records and private papers; **2.** Sarah Wilmot- The John Innes Center- A (global) genetic story; **3.** Henry Noltie-Three collections of Bengal Drawings; **4.** Rohan D'Souza- Limits to Boundaries Environmental Histories of South Asia in the Anthropocene; **5.** Vinita Damodaran-Janaki Ammal and the Hidden History of science; **6.** Mike Rayner-Conferences and Coloniality-The Indian Science Congress and the (de) colonization of Indian Genetics; **7.** Manas Bhaumik-Floristic diversity and noteworthy plants of Arunachal Pradesh, India; **8.** Anindita Saha-History should not be repeated, the untold story of the present day youth; **9.** Angelos Theocharis-Indigenous Film making and narratives of Climate crisis from the Sundarbans Delta.

I was fortunate that the organizer of this conference allowed me to chaired the session for first three talks as mentioned above.

On 13<sup>th</sup>, I visited The Royal Pavilion and surrounding gardens, also known as the Brighton Pavilion, establish in 1787, is a Grade I listed former royal residence located in Brighton now serve as a public Museum. It is built in the Indo-Saracenic style prevalent in India for most of the 19th century. The current appearance of the Pavilion, with its domes and minarets, is the work of architect John Nash, who extended the building starting in 1815. During the First World War, the Pavilion, along with other sites in Brighton, was transformed into a military hospital. From December 1914 to January 1916, sick and wounded soldiers from the Indian Army were treated in the former palace. The Pavilion hospital was set up with two operating theatres and over 720 beds. Over 2,300 men were treated at the hospital. A new gateway in Indian style was unveiled in 1921 by the Maharajah of Patiala to commemorate the Pavilion's role during the war.

The garden was dominated by tropical shrubs and trees. A concept was conceived about renovation of old architecture and archives inside the building. The old furniture's, wall painting, lamp shades and replicas of objects displayed were trying their best to make it original.

In the evening at CWEH Garden party at Lewis hosted by Prof. (Dr.) Vinita Damodaran, Director, CWEH give an opportunity to meet bright minds of great personalities like former Professor at University of Sussex Dr. Bryan an anthropologist expertise in Africa, Mr. Alex Global tourist who visited Arunachal Pradesh, Puduchery and other places in several occasions, Dr. Aditya Alumnae of Economics department, University of Sussex presently work at United Nations, Henry Noltie, Retd. Scientist, RBG Edinburgh, Dr. Stuart, Professor, University college of London and many others.

Next day, I shift my accommodation from Brighton to London near St. Pancras which will be nearer for other key institutions like British Museum and Natural History Museum, etc.

On 15<sup>th</sup>, I visited Natural History Museum, London. Dr. Ranee Prakash, Senior Curator Flowering Plants guided all along about Natural History Collections, The Herbariums, preservation Unit, visiting scientist working place, the Libraries and the new buildings. The most interesting section was the 17<sup>th</sup> century flowering plants collections. Major contributor of the collections from Asia particularly from India was Sir Hans Sloane and Sir Joseph Banks collections. The display of huge red wood tree trunk, painted ceilings by plant images, hanging skeleton of whale were amazing. To look at the original field note books of Hooker, Banks, Forrest and many other explorers are rare experiences. The artificial illuminations, display showcases, uses of natural light are worth mentioning. Huge open spaces, curio shops, cafeteria are very users friendly and encouraging visitors for recreation. Uses of different types of Book holders, supporting stands of different shape and size for old books are new things to implement at ISIM.

On 16<sup>th</sup> there is no planned activity but I visited British Museum and Victoria and Albert Museums which were located nearby. The South Asia gallery exhibits a large display of Archeological collections from India and China. The Nataraj Statue of dancing Lord Shiva and several poses of Buddha are very attractive. The 17<sup>th</sup> century art work from renowned Artist like Michelangelo, Leonardo the Vinci and other Italian Scholars also seen. The African gallery attracted by Mummies and pottery collections. The European galleries dominated by origin and evolution of Christianity and relevant information, the Royal collections etc. The clock, Jewellery and Photography galleries are interesting too. Glimpse of mineral collection, Gems and other geological objects also taken. The Victoria and Albert museum shows rich collection of Indian textile along with other various exhibits from northern parts of India.

Sunday the 17<sup>th</sup> was no planned activity, so spent by iconic tourist destinations of the city.

The 18<sup>th</sup> was most exciting day because I was planned to visit the Royal Botanical Garden, Kew. The prior appointment was made with Prof. (Dr.) Mark Nesbitt, Head of Economic Botany collection. He showed the century old herbarium collections, change of preservation and storage technique in acid free card board box. Gradually they are replacing the collections from wooden cupboard to newly installed compactors. Every decade a new wing was set up for incorporating new herbarium collections. Mark also allowed showing economic botany collections with great enthusiasm. The new storage with adjustable racks in compactors with duly catalogued specimens are excellent example of standard curation. The century old collections of *Aconitum* roots from Kashmir, Sikkim by East India Company are excellently preserved. The model of Cotton weaver procured in 1870's from Murshidabad district of West Bengal are kept in specially curretted Acid free Box. More or less all unusual rare collections kept in specially designed box. A duplicate or replica of Indigo story which was displayed at Botanical Gallery, ISIM also displayed there. The stool made from *Lodoicea maldivica* and, the hat from Amazonian tribe, the 17<sup>th</sup> century plant transportation box used by George Forrest also seen along with other thousands of interesting collections.

I also visited the archival collections of Kew. Apart from various displayed materials two correspondences I noted. Where a letter from Wallich to William Hooker in 24<sup>th</sup> June 1829 and another letter from Wallich to Robert Wight, 7<sup>th</sup> November 1839. The 1829 letter to Hooker describes Wallich's desire to send supplies of seeds to the Botanic Garden Calcutta, whereas the 1839 letter to Wight refers to seeds sent from Wight to Wallich, which Wallich has sown. All these Director's correspondences are digitized and available to view on the JASTOR Plant science Website (<http://plants.jstor.org>). But there is huge interest to see original physical materials by anybody in his or her field of interest.

The visit to Kew gardens was also amazing. The Princes of Wells conservatory, The Hives, The Temperate house, Palm house, Shirley Sherwood Gallery, Davies Alpine house, Marianne North gallery, The Lily pond were explored by me. The Nash Conservatory built in 1825, now is a wonderful location for wedding, exhibitions and events. The 250 years old Pagoda tree native of China (*Styphnolobium japonicum*) planted in 1760 here and still survives. The citrus scented leaves are boiled to make herbal tea but seeds are poisonous.

On 19<sup>th</sup> I reached Norwich in mid of the day which was about two and half hours journey from London. Due to heat wave the train departed late and run slowly. At Norwich I took accommodation at Riverside Guesthouse. As prior appointment was there so immediately proceed to John Innes Center (JIC). Sarah Wilmot guided there. She is an outreach Curator and science historian at JIC. The JIC an International Center of excellence in Plant science and microbiology, established in 1910. She allowed to see archival section where the collections comprise a History of Genetics Library and a Rare Books Collection, photographs of early conferences, Manuscripts. These interlinked resources are housed in the Library and accessed by appointment. The collections also cover the history of plant and microbial research and are an important resource for the history of genetics. In addition, the Rare Books collection represents an impressive library covering natural science, horticulture and botanical art across five centuries. After visiting this Institute, I strongly felt to develop such archival section at Botanical Survey of India, Industrial Section Indian Museum. That will be a real outcome of my visit.

Next day I visited South Asia Center at Norwich. This is a Museum cum sales store equipped with south Asian art and craft collections, furniture, dress materials mainly from India. Same day I returned to London and stayed at University College of London, Guest houses the John Adams Hall.

On 21<sup>st</sup> there was no planned activity. So, I visited British Library. Fortunately there was an exhibition on old Books and Manuscripts. Among other interesting exhibits I find the Mss of Michelangelo and Albrecht Durer art work. The original Lyrical notes on paper by Beatles, original letter from Gandhi to Lord Irwin, the Viceroy of India and many original rare gold script books on different religions. The Magna Carta is a royal charter of rights agreed to by King John of England in 12<sup>th</sup> century which was displayed there. The charter became part of English political life and was typically renewed by each monarch in turn, although as time went by and

the fledgling Parliament of England passed new laws, it lost some of its practical significance. Historically the Magna Carta still forms an important symbol of liberty today, often cited by politicians and campaigners.

On 22<sup>nd</sup> I departed from London and reached Kolkata, India with numerous ideas and thoughts. This exposure help me a lot for conceptualization of various research work in future at Botanical Survey of India.

I am extremely thankful to Dr. Vinita Damodaran Prof. of South Asian History, Director CWEH, University of Sussex and Mike Rayner Doctoral Researcher for invitation and sponsoring my visit to Sussex also necessary arrangement there. Thanks to U.K. Arts and Humanities Research Council for funding my visit. I am grateful to Director, Dr. A.A. Mao, Dr. Sandeep Chauhan Scientist E & HoO, BGIR Noida, Ms. Geeta Bhatnagar Under Secretary MoEFCC and other officials of BSI, Hqrs Kolkata for their support in various ways to make this tour successful.



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The Brighton City beside English Channel



The cliff side of English Channel at Brighton where Ice age remnants discovered



The Brighton Pavilion 17<sup>th</sup> century Royal Residence presently public Museum served as hospital during 2<sup>nd</sup> World War for Indian soldier



Speakers of the conference held at Dept of Media, Arts and Humanities, University of Sussex on 12.07.2022





A display of Whale skeleton in central Hall at Natural History Museum London



The 17<sup>th</sup> Century botanical collections kept in a specially designed racks at Natural History Museum, London



The economic botany collections at Kew



Looking some old collections of Indian plants at Kew Herbarium



The RBG Kew herbarium building



Some archival collections at RBG Kew



Glass conservatory for Tropical Plants at Kew Botanical Garden



The courtyard of British Museum



Archives of John Innes Center, Norwich with Sarah Wilmot and Mike Rayner



Storage of Archival documents at John Innes Center, Norwich