Indian Dyes and Textiles at the Royal Botanic Gardens, Kew

It is not widely known that London's famous Kew Gardens holds an important collection of arts and crafts from the Asian subcontinent. This forms part of the Economic Botany Collection, founded in 1847 as the Kew Museum (figure 1). The purpose of the museum was twofold: to educate the public about botany, and to show manufacturers the full range of plant raw materials from around the world. Kew staff identified the new plant products coming in to the port of London, or sent to Kew by British officials, explorers and merchants overseas. The resulting collection, now numbering 90,000 specimens, covers all plant uses in most parts of the world.

Overall, the specimens from British India form the largest part of the collection, reflecting the importance of India to the British economy, particularly in the period after 1857. The Indian holdings were also boosted by the acquisition in 1885 of the botanical collections of the East India Company's London museum (the India Museum), including many wood specimens. From British India, Kew holds 350 dyes, about 60 textiles and about 600 samples of raw fibres such as cotton bolls. An important principle of display in the Kew Museum was the “illustrative series”, showing the progression from raw material to finished product. This emphasis on showing and understanding processes is a particular strength of the collection, as is the coverage of minor as well as major useful plants.

Cotton and Indigo

It is not surprising that cotton and indigo dominate, given their importance to Britain’s textile industry in the 19th century. This period saw much experimentation in India with introduced cottons, and the disappearance of some traditional varieties. The 60 samples of cotton (genus *Gossypium*) include the bolls of both local and American varieties of cotton, such as Juree, Gangri, Hinginghat, Egyptian, Bourbon and New Orleans. The production of textiles is represented by samples of yarn, and a remarkable portable loom collected by Sir Joseph Hooker on his Sikkim expedition of
2
Girl’s jacket, donated by Mrs M.A.C. Moorat, late Inspectress of Girls Schools, Bihar. Cotton grown, spun and woven by schoolgirls, 1906; dyes with turmeric and indigo. Photograph courtesy Royal Botanic Gardens, Kew. EBC 73208.

3
“Patterned cloth of superior quality”, donated by J.D. Hooker, Sikkim, 1849. Photograph courtesy Royal Botanic Gardens, Kew. EBC 65462.
1850. There are few finished textiles, including a girl’s jacket from Bihar (figure 2) and
dyed cotton textiles collected by Hooker in Sikkim and Bhutan (figure 3).

There are also 60 samples of indigo dye from British India. The manufacturing
process is shown by the superbly detailed model from the 1886 Colonial and Indian
Exhibition, now on permanent display at the Plants+People exhibition within Kew
Gardens (see Jenny Balfour-Paul’s article on Indigo, figure 3). The bulk of the
specimens are of indigo cakes (figure 4), but several printing blocks from Rajasthan
are also present, including three collected by Jenny Balfour-Paul in 2007.

Minor Fibres and Dyes

The 600 fibre samples are derived from a total of 230 plant species, showing the
enormously wide range of plants used locally in India for fibre production. Some of
these species were and are commercially important, although not on the same scale
as cotton, for example jute (Corchorus) and ramie (Boehmeria nivea). Other species
represent introductions to India, for example sisal and other Agave species from the
Americas. However, the bulk are native crops and wild plants, such as madar (Calotropis
gigantea), which yields a useful floss from the seeds and fibres from the bark (figure
5). Inner bark is often forgotten as a plant fibre, but was important throughout the
tropics. Other bark fibres in the collection include banyan (Ficus benghalensis) and
Melochia umbellata (a species of mallow).
Dyes are a similar case: the 350 specimens are derived from about 170 species, as varied as the bark of white mangrove (Avicennia marina), the leaves of button tree (Anogeissus acuminata), the fruits of yellow myrobalan (Terminalia chebula) and the seed pods and hairs (whole and powdered) of waras (Flemingia grahamiana) along with dyed fabrics (figure 6).

Silk

Some animal products have traditionally been considered as being plant products, for example shellac, cochineal and silk, all well-represented at Kew. Four samples of wild tussar silks are present, including a box of very vivid dyed silks given by Thomas Wardle, dyer and supplier, to William Morris. The large collection of shellac specimens includes many red lac dyes.

Sources

The interest of the collection lies both in the specimens and in their provenance. The complete run of Museum Entry Books from 1847 to the current day, and the preservation of covering letters in Kew’s archives, mean that the circumstances by which a specimen came to Kew can usually be investigated in detail. The collection and its associated archives are therefore an excellent resource for the study of both local uses, and of their discovery and attempted appropriation by British science and industry. Some of the sources of dyes and fibres include international exhibitions such as Amsterdam (1883), London (1886) and Paris (1900); officials such as Major Hannay in Assam or Dr Hunter in Madras; explorers such as Sir Joseph Hooker; and the current-day researcher on dyes, Jenny Balfour-Paul.

Using the Economic Botany Collection

The Economic Botany Collection is now mainly housed in a research store at Kew, although 500 specimens are on display in the Gardens. The collection was databased in the 1980s, and this is available online, with digital images of selected specimens. The collection can be visited by appointment. Some letters in Kew’s Archives have been digitized, but most of those relevant to useful plants are housed in the Miscellaneous Reports series, which have not yet been digitized or indexed.

Economic Botany Collection website http://www.kew.org/collections/ecbot/
Collection database http://apps.kew.org/ecbot/search