

Portraying plants: illustrations collections at the Royal Botanic Gardens, Kew

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The Library & Archives at Kew hold one of the world's greatest collections of botanical illustration, assembled over the last 200 years. A resource well-known to the natural history community, it contains much to interest art historians. Using this historically rich heritage our forward thinking includes acquisition of more contemporary items and the formulation of a digital strategy for 21st-century access and exploitation.

History of Kew

The Royal Botanic Gardens, Kew, has a 250-year history from 1751 but is far from being the earliest botanic garden. Oxford was the first in England (1621) and the Royal Botanic Garden, Edinburgh was originally founded in 1670.

Before 1751 there were two separate gardens at Kew surrounding the homes of King George II (Richmond Lodge) and his son, Frederick, Prince of Wales (the White House). Frederick died in 1751 and after this his widow, Princess Augusta, Dowager Princess of Wales, devoted much of her time to the development of her garden, aided by the Earl of Bute. Augusta appointed William Chambers as architect in 1757 – several of his buildings survive today including the Orangery, Ruined Arch and Pagoda.

George II died in 1760 and was succeeded by George III; Augusta died in 1772 at which point George inherited his mother's estate. This is why it is Royal Botanic Gardens in the plural. From 1773 Sir Joseph Banks (1743-1820) was exercising some authority over Kew as an unofficial Director and in 1790 he appointed Francis [Franz] Bauer (1758-1840) as flower painter at Kew, in which post he continued until his death. After the deaths of both George III and Sir Joseph Banks in 1820 Kew was in decline and, following an enquiry in 1838, was transferred in 1840 from Royal control to public administration under the Office of Woods and Forests, an earlier forerunner of DEFRA (Department for Environment, Food and Rural Affairs), Kew's main sponsor today. William Hooker (1785-1865) was appointed as the first official Director from 1841 and the

development of Kew as a modern scientific institution began in earnest.

Today the Library is held and maintained under the *National Heritage Act 1983* and forms part of the national reference collections. There are three main components: Library (printed materials), Archives (manuscripts) and Illustrations.

The Library

Until 1852 there was no formal library at Kew. Before that time Banks, Hooker and others made their own libraries available for use. In 1852 the Rev. William A. Bromfield, a wealthy clergyman from the Isle of Wight, bequeathed his herbarium [collection of dried plants] and well-chosen library of about 600 volumes. In 1854 George Bentham (1800-1884) presented his library and in 1866 Sir William Hooker's library and correspondence were purchased for £1,000.

Hooker's library was a particularly fine one with many items purchased by him during his lifetime, as diverse as Ruiz's *Florae Peruvianaee et Chilensis* (Madrid, 1794) and Besler's *Hortus Eystettensis* (Nuremberg, 1613), although some of those with illustrations are uncoloured working copies.

Other highly illustrated books with hand colouring include such rarities as John Sibthorp's *Flora Graeca* [10 volumes, 1806-40] illustrated by Ferdinand Bauer (1760-1826), brother of Francis Bauer already mentioned, and a copy of Nicolas Jacquin's *Selectarum stirpium Americanarum historia* [3 volumes, 1780-81], one of fewer than 25 sets produced.

An impetus to the acquisition of finer items resulted from the establishment of the Bentham-Moxon Trust, founded initially with money bequeathed by George Bentham in 1884 and augmented by funds from Miss M. L. Moxon and A. E. Moxon in 1931. The Trust purchased extensively, both privately and at auction, on behalf of the Library including:

- Edouard Morren's *Bromeliaceae* drawings [in 1887]
- Redouté's *Choix des plus belles fleurs* (1827-33) [in 1909]
- Lady Barkly's *Orchidaceae* drawings [in 1918]
- The Tankerville collection of 648 drawings including some by G. D. Ehret and many by Margaret Meen, both of whom painted flowers for the Earl of Bute when he was advisor to Princess Augusta [in 1932].

Illustrations collections

The Library & Archives is responsible for one of the largest collections of prints and drawings pertaining to botanical art in the world. The collection totals some 200,000 items including original works of art in various media. Preserved in the Main Library and in the Herbarium, these illustrations, many of which are of historical importance, are arranged systematically by plant families and form an essential tool for the identification of plants for taxonomists, horticulturists and researchers alike.

This vast and diverse collection ranges in date from the great masters of botanical illustration G. D. Ehret, P. J. Redouté and the Bauer brothers in the 18th century through to Walter Hood Fitch and Marianne North in the 19th century. The holdings include a high proportion of the originals prepared for *Curtis's botanical magazine* together with 20th-century contributors such as Lilian Snelling, Stella Ross-Craig, Mary Grierson and Margaret Stones. Present-day artists represented include Christabel King, Ann Farrer and Pandora Sellars. Only a flavour of the many great artists can be given here.

The history of *Curtis's botanical magazine* dates back over two hundred years. It was founded by William Curtis in 1787 and is the longest-running botanical periodical featuring colour illustrations of plants. Today, each four-part volume contains 24 botanically precise plant portraits reproduced from watercolour originals by some of the leading international botanical artists. Each plate is accompanied by detailed text combining horticultural and botanical information with such topics as history, conservation and the economic uses of a worldwide range of plants. In the early years the plates were engraved on to copper and the resulting prints were coloured by hand by a team of colourists, replicating the original as closely as possible. In the 1830s lithography replaced engraving but each copy was still hand-coloured until 1948, when colour offset

lithography took over. Since then the magazine has gone through several printing changes with the development of modern printing techniques.

One of the *Botanical magazine's* most prolific artists was Walter Hood Fitch (1817-1892), who was Kew's principal artist from 1837 to 1877. He was born in Glasgow and was apprenticed to a firm of calico printers. Fitch spent his spare time mounting dried plant specimens for the then Professor of Botany at Glasgow University, William Hooker. Hooker soon discovered Fitch's ability to draw and became his instructor in the skills of botanical illustration. When Hooker was appointed the first Director of Kew in 1841 he encouraged Fitch to come with him. There, during the next 40 years, Fitch executed some 10,000 drawings for various publications including nearly 3,000 for the *Botanical magazine*. Fitch had an amazing eye and an ability to quickly draw directly on to stone without preliminary sketching; his style was therefore ideal for lithography. He was also a genius at portraying large and difficult subjects.

An important association was between Fitch and Joseph Dalton Hooker (1817-1911), the son of Sir William. Joseph Hooker's botanical career began when working with his father's herbarium and he travelled extensively on many plant hunting expeditions. One of the best known was to Sikkim Himalaya from 1848-51 from where he introduced many Rhododendrons that were to change our gardens. Hooker sent back to Fitch his own field sketches together with specimens and these were then drawn by Fitch to make up the spectacular plates for Hooker's publication *Rhododendrons of Sikkim Himalaya* [1849-51]. In 1855 Hooker was appointed Assistant Director at Kew and on the death of his father in 1865 succeeded him as Director. Fitch resigned from his position at Kew in 1877 after a dispute with his employers; he was later awarded a Civil List pension for his contributions to botany.

Georg Dionysius Ehret (1708-1770) is considered one of the greatest botanical artists of the 18th century. Yet his work has remained accessible only to the knowledgeable few, unseen by a wider audience. In the 19th century John Ruskin lamented the 'waste of exquisite original drawings of great botanists now lying uselessly in inaccessible cupboards'.¹ Echoing him a century later, in 1994, Blunt and Stearn mounted a direct challenge to those who hold Ehret collections, urging them to give the artist greater exposure.²

Ehret was born in Heidelberg, the son of a market gardener. The early part of his life was a struggle. In a brief autobiography written in 1758, he describes how he spent 'three years of slavery' as a gardener's apprentice, with little leisure for his painting. He then spent many years trying to make ends meet as a painter, with small success until he met Christoph Jakob Trew

(1695-1769), a wealthy Nuremberg physician, who became his lifelong friend and mentor. Trew was the author of the *Hortus Nitidissimis*, a work which took 36 years to complete and is an outstanding showcase for Ehret's beautiful hand-coloured engravings. Currently this is being prepared for launch on the Internet as part of the Library's first digitisation project, sponsored by the Andrew W. Mellon Foundation. Besides the *Hortus*, Kew has an extensive collection of Ehret's later work on vellum. Ehret preferred vellum to paper, and body-colour gouache to the technique of transparent watercolour washes. His painstaking renditions glow with colours apparently unfaded in the centuries since they were created.

Until now, it could be argued that it was for the conservation of Ehret's works and to preserve them for posterity that they were not made more widely available, but with the arrival of digitisation the works of Ehret and other artists remain safe while having the potential to reach the audience they deserve, who have a treat in store.

Marianne North (1830-1890) was a remarkable Victorian artist, who travelled the globe in order to satisfy her passion (some might call it obsession) for recording the world's flora with her paintbrush.³ The result of these epic journeys can be seen in the extraordinary Gallery named after her at Kew, where tier upon tier of brightly coloured paintings of flowers, landscapes, buildings, animals, birds and insects are arranged 'like postage stamps in a gigantic botanical postage stamp album', to quote Wilfrid Blunt.⁴ There are 832 paintings all completed in 13 years of travel round the world.

She was the daughter of Frederick North, Liberal Member of Parliament for Hastings. There was much travelling in Marianne's youth, both in England and Europe, and although she took the customary sketchbook on these expeditions it was music which was her mania until her beautiful voice deserted her and she then took up painting in earnest. Both Magdalen von Fowinkel, a Dutch artist, and Valentine Bartholomew (1799-1879), flower-painter-in-ordinary to Queen Victoria, gave her lessons in flower painting in watercolour. Edward Lear, the nonsense writer and a brilliant painter himself, gave her great encouragement and remained a life-long friend but it was Robert Dowling (1827-1886), an Australian painter, who had the greatest influence on her for it was he who instructed her in the use of oils. Marianne described her new obsession as 'a vice like dram drinking almost impossible to leave off, once it gets possession of one'.⁵

It was during visits to Kew with her father that Marianne first became aware of the exotic flora of the tropics. On one occasion Sir William Hooker presented her with a glorious hanging bunch of flowers of



Gustavia pulchra: pencil and gouache on paper by Margaret Mee, 1979.



Brugmansia arborea and humming birds: oil painting by Marianne North, Brazil.

Ambertsia nobilis, which Marianne described as 'one of the grandest flowers in existence' and recorded that it made her long more and more to see the tropics.

In 1869 Frederick North died, an event which had a profound effect on Marianne, for until then all life had centred on him. Now bereft and without 'one idol and friend' she had to start a new life. In 1871 at the age of 40, Marianne began her astonishing series of trips around the world. Between 1871 and 1885 she visited America, Canada, Jamaica, Brazil, Tenerife, Japan, Singapore, Sarawak, Java, Sri Lanka, India, Australia, New Zealand, South Africa, the Seychelles and Chile. Some of the plants she painted proved new to science and one genus and four species were named in her honour. She had a year off in 1881-1882 to arrange her pictures in the Gallery, which was designed by her friend James Fergusson, the architectural historian, and built at her own expense, opening to the public in June 1882.

Marianne was undoubtedly a woman of strong and determined character, who thought nothing of travelling to the most remote places just to paint plants in their habitats or as she put it 'flowers in their homes'. She stayed in private or rented houses, hotels, Government residencies, palaces and hovels. She experienced an incredible range of transport – carts, buggies, canoes (both in water and shoulder-high), the backs of horses, mules and elephants, as well as ordinary ships and trains.

Eventually ill health caught up with her and she retired to a village in Gloucestershire. There she made herself a beautiful garden and sat writing her *Recollections of a happy life* (published after her death in 1892). On 30 August 1890 this extraordinary woman died at the comparatively early age of 59. However posterity judges the merits of her paintings, all must surely admire her industry and determination, her spirit of adventure and her considerable artistic talent.

Margaret Ursula Mee (1909-1988) ranks as one of the most remarkable and intrepid Englishwomen of the 20th century. Referred to as the premier female explorer of the Brazilian rainforest, she was also an outstanding botanical artist. Her expeditions to Amazonia from 1956 to 1988 coincided with the period of maximum deforestation in the region, particularly during the 1970s and 1980s. A pioneering conservationist, Mee became one of the first to raise a voice against the destructive exploitation of the Amazon. An exhibition of her work and artefacts organised by Kew's own North American Exhibitions Officer, Ruth L. Stiff, and entitled *Return to the Amazon*, travelled the USA in 1997-1999. The Library holds 60 original watercolour and gouache paintings together with a collection of sketchbooks which were purchased by the Margaret Mee Amazon Trust (now Margaret Mee Fellowship Programme) and donated to Kew.

Stella Ross-Craig (1906-) served on the Kew staff from 1929 to 1960. During this time she executed more than 3,000 illustrations, which have appeared in numerous publications, including 333 plates published in *Curtis's botanical magazine*. Her media include watercolour, pencil and pastel, but the works for which she is probably best known are the 1,300 scientific pen and ink drawings prepared over 25 years for the *Drawings of British plants* [1949-1973]. The ultimate authorities on botanical illustration, Wilfrid Blunt and William T. Stearn wrote, 'In the making of scientific black and white line illustrations, Miss Stella Ross-Craig stands today unrivalled for she combines sound botanical knowledge with sure draughtsmanship'.⁶ An exhibition of 55 originals selected by Stella herself and curated and organised by Paul Nesbitt and Henry Noltie was loaned from Kew to the Royal Botanic Garden, Edinburgh in 2002 for an exhibition in Inverleith House. Following the success of this exhibition it will be mounted at Kew in the Summer of 2003 in conjunction with our Summer Festival. Stella's outstanding contribution to botanical art was duly recognised in 1999 when she received the Kew Medal.

Christabel King (1950-) has an honours degree in Botany from University College, London, and studied Scientific Illustration for two years at Middlesex Polytechnic (now Middlesex University). Since 1975 she has made illustrations for *Curtis's botanical magazine* at Kew and until 1984 she helped with the editing. From 1986 onwards she has taught classes in botanical illustration at Capel Manor College, Enfield, and since 1990 has tutored scholarship students from Brazil studying at Kew under the Margaret Mee Fellowship scheme. In 1994 she visited Brazil and taught courses in Rio de Janeiro, São Paulo and elsewhere. Her work is mainly in watercolour and, apart from the 200+ examples held at Kew, her work is represented in the collections of the Hunt Institute for Botanical Documentation, Pittsburgh, and in the private collection of Dr Shirley Sherwood. She has illustrated several of the *Botanical magazine monograph* series including *The genus Echinocereus* (1985), *The genus Pleione* (1999) and *The genus Epimedium* (2002).

When this article was being written Christabel was asked to select her favourite painting and the following is her own reasoning. 'I wondered how to select just one of them and for what reason should I choose it. Should it be a favourite plant, for looks, or botanical interest, or technical challenge? Or should it be the most pleasing illustration for composition in the limited format of the page size? In the end I chose Plate 31 from *The genus Echinocereus*, which shows *Echinocereus fendleri* var. *fasciculatus* and *Echinocereus engelmannii* var. *engelmannii*. I am content to look at this, which still evokes for me the lovely satiny texture of this type of cactus flower as I saw

it. Also it still seems to have in it my thoughts and imagination about the sunny deserts where they grow, even though I painted it by a window in the Herbarium at Kew and I have never seen it in the wild! The flowers were recorded quickly when they opened fully but the stems with all their spines presented quite a challenge and took a long time to finish.'

Objets d'art

The Library is also responsible for *objet d'art* material displayed or stored in various buildings throughout the 330 acres of Kew Gardens. There are over 250 items including framed oil portraits, medals, sculptures, miniatures, scientific instruments and some furniture. Among the many fascinating items are the folding travelling chair used by Sir Joseph Banks, original oil paintings by the artist and explorer Thomas Baines (1820-1875) and many exquisite miniatures.

Portrait collection

The collection of portraits of botanists and people associated with botany and horticulture contains over 4,500 items. It includes items in many media including oil paintings, engravings, lithographs, pastels and of course photographic prints. The nucleus of the

collection came from Sir William Hooker and includes many interesting items such as the crayon portraits executed for Sir William by Daniel Macnee (1806-1882), representing a remarkable group including the botanists and explorers Asa Gray, David Douglas and Allan Cunningham. Within the photographic collection there are, for example, several original photos of Marianne North taken by the famous photographer Julia Margaret Cameron (1815-1879). Occasional purchases and presentations, together with a continuing photographic record of current botanists and artists, enhance the collection.

Illustrations in Archives

There is inevitably some overlap between the Illustrations and Archives collections at Kew. This is largely because so many botanists and plant collectors have also been talented artists and have used their ability to supplement the written record of their botanical work. Among the most notable are Kew's first two official Directors, mentioned earlier, Sir William Hooker and his son Sir Joseph Hooker, who were both competent draughtsmen. William Hooker's drawings of algae and other sketches survive, and the extensive papers of Joseph Hooker include a number of items containing botanical drawings from his travels in the Antarctic and India. His small notebooks, of which there are 39 in the



Rhododendron thomsonii: field sketch by Joseph D. Hooker, 1849.



Rhododendron thomsonii: handcoloured lithograph by Walter H. Fitch.

Rhododendrons of Sikkim Himalaya [1849-51].

Archives, are often illustrated with topographical sketches, and he frequently embellished letters with sketches of plants and of landscape.

A collector whose interests were more varied than some was Francis Hall (d. 1834). Hall travelled to South America in 1820, where he became a friend of the botanist William Jameson (1796-1873), Professor of Botany and Chemistry at Quito. A Colonel in the Colombian army, Hall collected plants and sent them to Sir William Hooker. He died in a revolution in Quito. His collecting notes contain not only drawings of plants, but also vivid impressions of birds, insects and the local terrain.

The notebooks of William Burchell (1781-1863) in the Archives do not contain illustrations but one volume does contain his colour chart, painted before he left for Brazil in 1825, to help him to describe accurately the colours of the plants collected. The Illustrations collection contains 33 loose plates and an album of pencil and watercolour drawings of plants, landscapes, gardens and buildings in St Helena, done 1805-1820.

Nicholas Edward Brown (1849-1934) was an authority on succulents, asclepiads and Cape plants. He worked in the Herbarium at Kew from 1873, and was Assistant Keeper from 1909-1914. His drawings of succulent plants were made in connection with his revision of the genus *Mesembryanthemum*, which appeared



Glaucum flavum: pen and ink drawing by Stella Ross-Craig prepared for Drawings of British plants [1949-1973].

in 1931, and are accompanied with detailed annotations.

Some illustrations form part of the manuscripts of publications which never came to fruition. Two notable examples are the papers of Charles Maries and of Sydney Courtauld. Charles Maries (c.1851-1902) was employed by the Chelsea nurseryman Sir Harry Veitch to collect in Japan and China, 1877-1879, before in 1882 becoming Superintendent of Gardens to the Maharajah of Durbhungah. His work *Cultivated mangoes of India* was never published, and the Archives at Kew contain his manuscripts and also a volume of his drawings of brightly coloured mangoes. Sydney Courtauld (1840-1899) was an orchid grower from Braintree in Essex, but also had a keen interest in ferns. The Archives have his unpublished illustrated work in two volumes, *The fructification of ferns*, along with supporting correspondence from the Courtauld family.

There are also a few items which stand alone, of which the most outstanding is the *Calendarium*, 1610, of Sebastian Schedel (1570-1628), a manuscript florilegium containing 289 folios of coloured drawings of flowers, arranged according to months of flowering, which relates closely to Basilius Besler's famous *Hortus Eystettensis* (1613). As well as original illustrations, which vary in quality but which show a high degree of botanical knowledge, the *Calendarium* includes cutout engravings from Besler's original book, inserted later. The circumstances of its arrival at Kew are unknown, but it seems to have been acquired between 1865 and 1890.

Recent acquisitions

We make additions to complement the collections both historically and, since 1999, adding the work of contemporary artists, especially those not already represented. Recent examples include:

- The Michael Hoog collection of Tulipa drawings by Mary Grierson (1912-) – purchased at auction in the Netherlands in 1992.
- Banks's *Florilegium* (Alecto Editions, 1984-87) – printer's proof set purchased 1994.
- Michiko Kobayashi, a Japanese mycological artist, visited Kew in June 2000 to commence handover of her original illustrations of fungi in natural habitats. Michiko will continue to send us more of her beautiful paintings over the next few years.
- 100 drawings on paper and vellum by Margaret Meen (fl.1775-1824), purchased in 2001 from a descendant in the USA. These complement those in the Tankerville collection.
- In May 2002 we bought four framed watercolour on vellum illustrations of auriculas, by the contemporary botanical artist Celia Hegedüs (1949-).
- Lucy Smith (1968-). In 2002 we acquired six prints of palms of North Queensland, taken from original



A species of cotton (*Gossypium*): watercolour on vellum by Georg D. Ehret, 1760.

illustrations Lucy is currently working on at Kew. We have commissioned an original for completion in 2003.

- Also in 2002, another artist working at Kew on pumpkins and the *Leguminosae* (pea) family, Rachel Pedder-Smith (1975-), executed a seed pod illustration to our commission.
- The Margaret Mee Fellowship Programme, based at Kew, has since the 1990s sponsored a different Brazilian botanical artist each year and purchases an example for the collections.
- In May 2002 Margaret Stones (1920-) returned to her native Australia after some 50 years' association with Kew and *Curtis's botanical magazine*. Before she left Margaret made a most generous donation of over twenty items with a few of her own illustrations complemented with choice items from her own collection of contemporary artists.

Storage, preservation, access and the future

In the late 20th century there was an increased awareness at Kew of the need for conservation and with the setting up of our own well-equipped Preservation Unit in 1987 we try to ensure that storage and handling methods aid long-term survival. Corrective conservation work is carried out on priority materials, with the main focus on prints and drawings. Ultimately, for example, we need to remove many thousands of mounts on loose illustrations, where both the mounting paper and the adhesive are unsound, and repackage items to modern standards.

Secure storage is virtually full and it is with the

development of the proposed Kew Plant Information Centre building over the next few years that we will gain the space and facilities essential for storing, displaying, allowing greater access and otherwise exploiting these treasures. Research visitors are at present admitted by advance appointment only.

Illustrations are currently being entered on to our Unicorn Library Management System and will, in the future, be made available on the publicly accessible version of our catalogue at our website: <http://www.kew.org/library/index.html>. Digitisation, as mentioned above, under the initial sponsorship of the Mellon Foundation, is under way. Another exciting development is the Kew Electronic Plant Information Centre, ePIC, a resource discovery system which was launched in October 2002: <http://www.kew.org/epic/>. The Kew ePIC is funded under the Treasury's Capital Modernisation Fund and a single search for a plant name is propagated simultaneously across a growing range of diverse Kew databases. Images – of modern photographs, drawings and historical illustrations – will be added to ePIC from the middle of 2003 onwards.

References

N.B. The botanical names published in this article are as originally recorded by the artist.

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5. *Quoted in* Ponsonby, *op. cit.*, p.140.
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