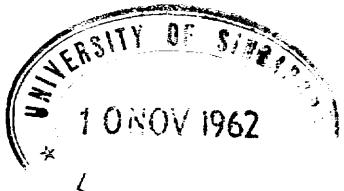
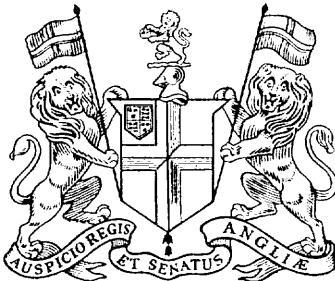


NATURAL HISTORY
DRAWINGS
IN THE INDIA OFFICE
LIBRARY

By Mildred Archer



LONDON

Published for the Commonwealth Relations Office by
HER MAJESTY'S STATIONERY OFFICE

1962

Natural History Drawings in the India Office Library

drawings are of little scientific importance today, they cannot but recall his resolute figure as he sat by Baber's tomb or plodded over the mountains of Bamean in Afghan dress.

Dr Francis Day

Griffith was one of the few naturalists to study fresh-water fishes. The investigation of the fishes of India—rather surprisingly in view of their economic possibilities—lagged behind the study of flora and fauna. Pioneer work had been done by Patrick Russell, who as Company's Botanist in the Carnatic from 1785 to 1789, had collected the material for his *Descriptions and Figures of Two Hundred Fishes collected at Vizagapatam on the Coast of Coromandel* (1803). Buchanan, as we have seen, investigated the fishes of the Ganges during his surveys in Eastern India, and McClelland had also worked on the fish of Bengal. But it was not until the second half of the nineteenth century that the fisheries of India, both fresh-water and salt, were systematically studied by Dr Francis Day (1829–1889). This doctor had entered the Company's service in Madras in 1852 and soon began to study ichthyology and produce papers and reports. In 1864 to 1865 he was on leave in England and wrote up and published the material he had collected while posted in Cochin in 1863. Some of the drawings which he made during this period are in the Library (NHD 8. 1317–24). Numerous other publications followed after his return to India. The six drawings in the Library are a small part of so great a work, but they serve to recall Day's contribution to this economically important branch of Indian natural history.

❧ vi ❧

OFFICIAL NATURAL HISTORIANS AND THEIR COLLECTIONS
IN SOUTH EAST ASIA AND THE FAR EAST

Dr Thomas Horsfield

Such surveys and expeditions were made in India or the territories adjoining it. Similar work, however, was proceeding in more remote Company possessions. In Java, under the Lieutenant-Governorship of Raffles (1811–1816),

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Official Natural Historians and their Collections in S.E. Asia and the Far East

a general survey was started, certain officers being set to investigate the economics of the country and others the administration of the Dutch. Colin MacKenzie, in addition to a land survey and enquiry into land tenure, revenue and trade, recorded antiquities, while Dr Thomas Horsfield (1773-1859) was given facilities for investigating natural history both in Java and Banka. Horsfield was an American doctor who had joined the Dutch East India Company in 1799 and was keenly interested in natural history. In 1811 he was transferred to the British service and soon became an admiring friend of Raffles. The two corresponded frequently, exchanged information and met whenever possible. At their first meeting at Suracarta in 1811, Raffles encouraged Horsfield to devote several months during 1812 to investigating the natural history of the Preanger Regencies. Although Horsfield was primarily a botanist, he extended his researches to cover antiquities as well as fauna and minerals, with the result that a steady stream of specimens and drawings reached the Company's Museum in London. There are lists in the Library (MSS.Eur.D 562/22-8) which record the arrival of all these specimens. When Java was returned to the Dutch after the treaty of Vienna, Raffles and his successor, Fendall, arranged for Horsfield to continue his researches until he retired in 1819. During each of the intervening years, Horsfield, accompanied by a draughtsman and native collectors, undertook an arduous tour to amass specimens and drawings. From November 1812 until June 1813 he toured Banka as a member of the Commission of Enquiry into the island's affairs and resources. A year later he visited the western provinces and in 1815 from May until November toured the eastern districts. In 1816 he concentrated on the lepidopterous insects of Java, but also visited the mountain of Merapi and the south. In 1817 he toured in Mataram and in 1818 in the western extremity of the island. During his last two years in Java he worked hard to complete and order his collections and drawings ready for his retirement in 1819. He then proceeded to the East India Company's Museum in Leadenhall Street as its first Keeper, where he remained until 1859 ordering, examining and cataloguing many of its specimens.

Of these collections of natural history drawings, two by Horsfield are in the Library—one comprising ninety-seven drawings of birds, mammals and reptiles (NHD 1, Nos. 76-172, Plate 5), the other, two hundred and forty-one of Javanese Lepidoptera and mosses (NHD 9, Nos. 1401-1642). With

Natural History Drawings in the India Office Library

the exception of twenty-five drawings made by William Daniell from Horsfield's specimens in the Indian Museum, all were made in Java between 1811, when Horsfield entered the Company's service, and 1819, when he retired to England. Horsfield records in one of his books the care with which these drawings were made. By 1815 he had trained several draughtsmen in Java for work on botanical drawing, and their skill was soon applied to other branches of natural history, especially the careful drawing of insects.¹ Adjoining his house was a room full of breeding cages containing caterpillars.

As soon as the caterpillars were approaching to perfection a drawing was made of them. The same individual which had been submitted to the draughtsman was then separately confined, watched with the most diligent care, and as soon as it had passed into the state of a chrysalis again made the object of the pencil. A determinate number was carefully attached to the drawing and the cage of the chrysalis. As soon as the perfect insect had appeared and expanded its wings, it was secured, set, and numbered in accordance with the lava and chrysalis. During this period, every possible solicitude was employed to prevent mistakes. The original series, consisting of the perfect insects and the chrysalides obtained by this mode of proceeding, and numbered in accordance with the collection of drawings made at the same time, is now deposited in the Museum of the Honourable East India Company and affords an authentic document of the accuracy of the details regarding the metamorphosis of Javanese Lepidoptera, which will be offered in the course of this work.²

These drawings assisted Horsfield in his two main publications on Java and in his famous catalogues of the Museum's mammals, birds and insects.

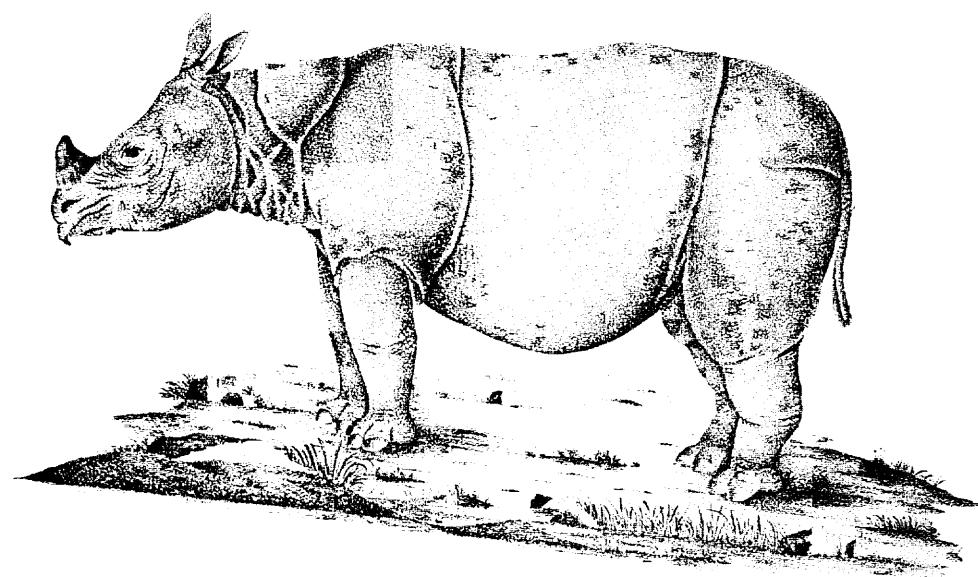
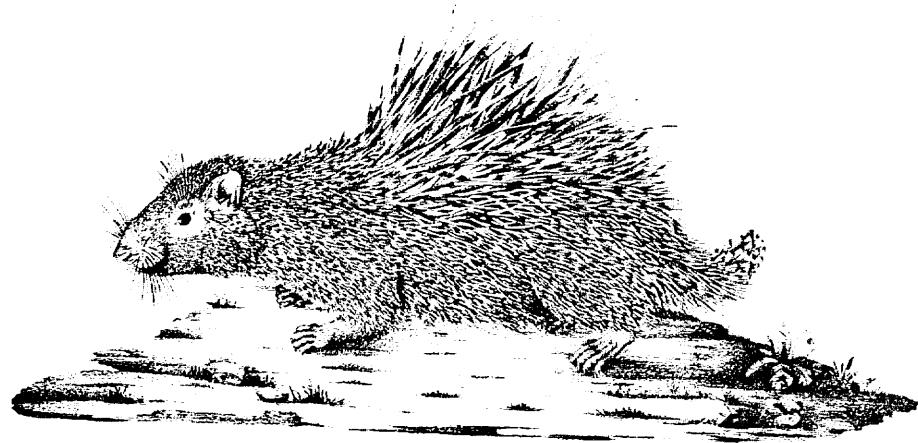
Dr George Finlayson

Besides making surveys of its territories, the Company periodically sent expeditions to the Far East to investigate trade, and in the course of them further researches were made in natural history. Such an expedition was John Crawfurd's embassy to Siam and Cochin China from November 1821 to December 1822. Dr George Finlayson (1790-1823) accompanied this expedition as Surgeon and Naturalist and in the course of it made a large

¹ The Dutch draughtsmen M. L. Doppert and J. van Stralenborff helped him with some of his insect and plant drawings, but most of the work was done by local artists.

² T. Horsfield, *Descriptive Catalogue of the Lepidopterous Insects in the Company's Museum*, part i (London 1829), 7.

PLATE 5



(top) Javan porcupine (*Hystrix javanicum*)
(bottom) Javan rhinoceros (*Rhinoceros sondaicus*)
Horsfield Collection

ILLUSTRATIONS

FRONTISPIECE

Black-naped oriole on a Eugenia (*Oriolus chinensis*). Wellesley Collection (NHD 29. f. 43). By a Chinese artist in Malacca, c. 1800

PLATE 1

Shoe flower (*Hibiscus rosa-sinensis*). Wellesley Collection (NHD 19. f. 26). By an Indian artist from the Calcutta Botanic Garden, c. 1800

PLATE 2

Squirrels from Sumatra (*Callosciurus sp.*). Marsden Collection (NHD 1. No. 18). By a Chinese artist in Sumatra, c. 1800

PLATE 3

Surgeon and butterfly fishes (*Acanthurus sp.* and *Chaetodon sp.*). Parry Collection (NHD 2. No. 299). Probably by Manu Lal, an Indian artist employed by Parry in Sumatra between 1807 and 1811

PLATE 4

Purple heron (*Ardea purpurea*). Gibbon Collection (NHD 2. No. 276). By Gurudayal, an Indian artist employed by the Barrackpore Menagerie, c. 1806

PLATE 5

Javan porcupine (*Hystrix javanicum*). Javan rhinoceros (*Rhinoceros sondaicus*). Horsfield Collection (NHD 1. Nos 170 and 169). Perhaps by a Chinese artist in Java, c. 1811-17

PLATE 6

Bush cricket and Banana spider. Chinese Drawings (NHD 43. ff. 82 and 66). By a Chinese artist in Canton, c. 1807

Leaf beetle (*Crioceris impressa*) and scarab beetle (*Catharsius pithecius*). Wellesley Collection (NHD 34. ff. 94 and 113). By an Indian artist in Calcutta, c. 1800

PLATE 7

Pied mynah on a Eugenia (*Sturnus contra*). Wellesley Collection (NHD 29. f. 26). By an Indian artist, probably from the Calcutta Botanic Garden, c. 1800

PRIVATE COLLECTORS IN INDIA

Collections of natural history drawings by private individuals can be divided into two groups: those which were made in India; and those which came from the Company's possessions farther east.

Of those made in India, the earliest drawings possessed by the Library were executed by Indian draughtsmen for Dr James Kerr (1738-1782), a Company Surgeon on the Bengal Establishment from 1770 to 1782. After working as a ship's surgeon from 1763 to 1772, he appears to have spent his service in Bihar and Bengal (he was in Dacca in 1774), and while there to have interested himself in subjects such as the cultivation of opium and lac. A small collection of his botanical papers are in the Library (MSS. Eur. E.11), among them four water-colour drawings illustrating his articles on a 'New Plant from which the Terra Japonica of the shops is extracted', on the lac insect which thrives on the *Palas* tree, and on a 'New & Singular Plant, the . . . Burrum Chundalli'. Kerr was fascinated by the moving leaves of this plant and concludes his note (pages 69-70):

It is no wonder that this strange plant should become an Object of Superstition, among an Illiterate people; On their day called Sunichur (Saturday) they cut off two lobes at the instant they approach together, & beat them up with the Tongue of an Owl: with this composition the Lover touches his favorite Mistress, to make her comply with his wishes!

The Marquis Wellesley

The finest private collection in the India Office Library, however, is that of the Marquis Wellesley (1760-1842). This was made while he was Governor-General of Fort William from 1798 to 1805 and consists of two thousand, six hundred and sixty folios of natural history paintings depicting plants, birds, mammals, insects and fishes. (NHD 10-36, Frontispiece, Plates 1, 6, 7, 8, 11, 13, 15, 16, 20.) Wellesley had unusual opportunities for amassing a great collection. As a result of his important office he regularly received presents of rare flowers, birds or animals. Some were sent by Company servants from all over India, others were brought by visiting ships or travellers from further east—from Malaya, Penang, Sumatra, the Moluccas

and even Australia; while as Governor-General he met everyone in Calcutta who was interested in natural history, whether resident or visitor. Moreover, at this time the Presidency town contained a number of keen and learned natural historians who continually met each other and exchanged ideas and information (see page 22).

It is not surprising then that a great collection was amassed. Many drawings depict birds, animals and plants which Wellesley had received as gifts, and some bear inscriptions recording details. A cheetah 'drawn from life' 'was found in the Palace of Tippoo Sultan at Seringapatam, 1799' (NHD 32. f. 3). A picture of a hunting lynx is described, 'From life in possession of Marquis Wellesley.' 'This animal was given me by Rajah Mitter Jeet Singh, a Zemindar of Bahar . . . W. 1802' (f. 7). A picture of a leopard is inscribed, 'From life, sent from the Coast of Malabar' (NHD 33. f. 2). A number of drawings came from farther afield, from Malacca, Penang and the Moluccas. These must have aroused great interest at the time since only a few years previously, as a result of Napoleon's occupation of the Netherlands, the Company had seized a number of French and Dutch possessions in the Far East. Malacca, for example, was taken from the Dutch in 1795 so that it could not be used as a base for attacks on British shipping. As a result of these conquests British administrators proceeded to these areas, and following the practice of other civilians not only began to investigate the local flora and fauna but recruited local artists—the Chinese—to make drawings of them. Some of these drawings appear to have been despatched to Wellesley and his collection thus contains some of the first drawings from these areas.

Not all his drawings, however, were of presents, for other pictures reflect his contacts with fellow enthusiasts who had chanced to fill gaps in his collection. Lord Valentia visited Wellesley in Calcutta in 1803 during his tour of the East and gave him some bird paintings. Captain Hardwicke of the Bengal Artillery (see page 8) also presented him with drawings of birds from the Himalayas. In addition certain pictures in Wellesley's collection are copies of originals made for Captain Hardwicke, while others are based on drawings brought back by Dr Buchanan from Nepal and Mysore in 1801 and 1802.

Such drawings are in the main exceptional, for the rest appear to have been made expressly for Wellesley by Calcutta painters from specimens which he

Natural History Drawings in the India Office Library

either acquired locally or saw growing in the Botanic Garden. An orchid was found 'growing on a mango tree in Mr Dodwell's Garden' (NHD 13. f. 85). Other plants were from up-country stations in Bengal—from Rangpur, Dinajpur or Midnapore—the drawings being carefully inscribed with their Bengali, Urdu or Hindi names. Notes were also sometimes added recording information given by local inhabitants concerning their economic or social uses: 'The grass used by Hindoos in their worship' (NHD 10. f. 111); 'The oil much used by the Natives on their food' (NHD 15. f. 95); 'The best bow-strings made from this plant' (NHD 15. f. 58); 'The light pith used to make Toys for Children' (NHD 19. f. 88). In this way through personal curiosity and the help of enthusiastic friends, Wellesley was able to build up a great collection which reflected the cultured interests of an eighteenth-century nobleman.

Lord Clive

While Wellesley was amassing drawings in Calcutta, Lord Clive (later the first Earl Powis) was making another collection in Madras. Edward Clive (1754–1839), eldest son of the famous Robert Clive, was Governor of Madras from 1798 to 1803, and during these years collected several volumes of natural history paintings from South India, some of which were sold in 1956 at Sotheby's by his descendant, Lord Powis. At this sale the India Office Library acquired fifteen drawings: three of animals, two of birds, nine of fish and one of a turtle (NHD 44/1–15, Plate 18). These differ in style from the remainder of Clive's collection, and from the inscription 'Malacaw' on two fish drawings it would appear that they were made in Malacca by Chinese painters. The two bird pictures also resemble those from Malacca in Wellesley's collection, and just as some of the newly arrived British administrators had supplied Wellesley with drawings, it seems likely that one or more of them may have made similar presents to Clive.

Major-General Thomas Hardwicke

One of the greatest collectors of natural history drawings in India was Major-General Hardwicke of the Bengal Artillery (1755–1835). He entered the service in 1778, fought in the Second and Third Mysore Wars and

Natural History Drawings in the India Office Library

These drawings were collected sometime between 1793 and 1813 in South India by Dr Benjamin Heyne while he was Company's Botanist in the Carnatic.

All would appear to be by the same Indian painter who has a distinctive style. From pencil inscriptions on many of the drawings he may have been named 'Chobi' (Chaubey).

The drawings were given to the Library on 18th October 1813, when Heyne was on leave in England. The Day Book records, 'Dr Heyne presented to the Library 44 Drawings of Indian Birds'.

BRIAN HOUGHTON HODGSON

1800-1894

(NHD 5. Nos. 765-9) Five drawings in water-colour, pencil and oil on thin canvas depicting Indian mammals: bound in a volume measuring 21 inches by 14 inches. (Introduction, pages 11-12.)

The collection was made by Hodgson in Nepal and Darjeeling some time between 1820 and 1858.

From faint pencil inscriptions in Nagari on Nos. 766 and 767, the draughtsmen would appear to be Hindus from Bihar or the United Provinces.

The drawings were apparently sent to the Library together with a memo and specimens. No. 765 is inscribed, 'B. H. Hodgson: unpublished. To be published with description from the present memo & skins & sculls.' Nos. 765 and 767 are inscribed, 'To be returned to East India House', and No. 766, a drawing of the same subject as 765 is inscribed, 'To be returned to Dr Horsfield'.

765 and 766 are both drawings of the same subject, the *Neodon Sikimensis*. A specimen of this vole was sent to India House in 1852.

THOMAS HORSFIELD

1773-1859

1. (NHD 1. Nos. 76-172)

Ninety-seven drawings in water-colour, pencil, and pen-and-ink depicting 48 birds, 46 mammals and 2 reptilia from Java; bound in a volume measuring 21 by 14 inches. (Introduction, pages 46-8, Plate 5.)

Seventy of these drawings were probably made by Chinese artists in Java between 1811 and 1817, while the British were in occupation of the island. The drawing is, in

Catalogue

some cases, weak and incompetent. They were received by the Library in August 1819.

Twenty-five pencil drawings (Nos. 126, 127, 129, 131-3, 135-7, 139, 141-3, 150, 151, 155, 156, 159-63, 165, 166 and 168) were made by William Daniell between 1820 and 1824 from Horsfield's stuffed specimens in the Company's Museum. Two water-colours (Nos. 147 and 164) for reasons of style would also appear to be by him. Twenty of the engravings in Horsfield's *Zoological Researches in Java and the Neighbouring Islands* (London, 1824) were made from these drawings: Plate 2 (No. 162), Plate 3 (No. 161), Plate 4 (No. 159), Plate 11 (No. 155), Plate 13 (No. 132), Plate 14 (No. 131), Plate 15 (No. 133 in reverse), Plate 16 (No. 135), Plate 17 (No. 136), Plate 20 (No. 129), Plate 21 (No. 139 with a slight alteration), Plate 23 (No. 126), Plate 26 (No. 141), Plate 29 (No. 150), Plate 30 (No. 156), Plate 31 (No. 168), Plate 33 (No. 165), Plate 67 (No. 137). Plates 27 and 28 appear to have been engraved by Daniell from the Javanese drawings Nos. 144 and 146 with slight modifications.

The drawings of birds were of assistance to Horsfield in preparing his 'Systematic Arrangement and Description of Birds from the Island of Java', a paper read to the Linnaean Society, 18th April 1820, XIIIth volume of *Transactions*, and in compiling his revised 'Catalogue of Birds' in *Zoological Researches*.

The drawings are of special interest since the Horsfieldian types were imperfectly preserved, and during the removal of the collections from Leadenhall Street to Fife House moths destroyed nearly the whole of them.

2. (NHD 9. Nos. 1401-1642)

Two hundred and forty-one drawings in water-colour, pen-and-ink and pencil; 236 depicting Lepidoptera and 5 cryptogams from Java; bound in a volume measuring 21 by 14 inches. (Introduction, pages 46-8.)

These drawings were collected by Horsfield in Java between 1811 and 1818. The drawings of mosses were probably made by himself, those of the insects by his local draughtsmen. The drawings of insects accompanied the specimens which he presented to the Company. They were used in preparing his *Descriptive Catalogue of the Lepidopterous Insects in the Company's Museum*, parts i and ii (1829) and for *A Catalogue of the Lepidopterous Insects in the Museum of the Hon. East India Company*, 2 vols. (London, 1857 and 1858-9) which he and his assistant Frederic Moore compiled together. The illustrations in the latter two volumes were made by J. O. Westwood (see page 27) from Horsfield's collection of drawings. The illustrations have been pasted into this album beside 59 of them.

The drawings are numbered 1-187 (some are duplicates) and are inscribed 'Java Horsfield' while the Latin name of the subject is also given. The drawings 1638-42 are inscribed 'Drawings of Java Mosses'.

Horsfield's botanical drawings were transferred to Kew in 1879. Unfortunately the working out of the botanical collections was entrusted to Robert Brown and the only