B/N Sloane, Hans (Sir)

Sir Hans Sloane's Voyage to Jamaica, 1687-1689

Editor's Introduction | Voyages of discovery were an important part of the search for a new order in the natural world. Tony Rice charts Sir Hans Sloane's seventeenth-century expedition to Jamaica, a voyage that produced one of the world's most significant natural history collections. Sloane amassed a hoard of thousands of natural history books, objects and artworks in his quest for a rationalist approach to the study of nature.

The Natural History Museum, London

Portrait of Sir Hans Sloane.

Lovers of milk chocolate would probably not immediately see a connection between the object of their passion and the establishment of the British Museum. The curious link is a young Irish-born Protestant physician setting out on a long and distinguished medical career in late 17th-century London. In 1687 Hans Sloane was 27 years old, already had a well-established practice and was firmly ensconced in the medical and scientific society of the capital. Sloane's world was a turbulent one, politically, religiously and especially philosophically. There was still a widespread belief amongst savants that the "correct" approach to the natural world was a totally detached and hypothetical one, resulting in interpretations of natural phenomena, including plants and animals, that frequently owed more to imagination than to fact. Consequently, most published accounts of natural history were still full of fictitious nonsense often based on fanciful travellers' tales brought back by uncritical observers from exotic parts of the world. But what was to become the world's most respected scientific society, the Royal Society "for promoting natural knowledge," had been founded in 1660, the year of Sloane's birth.

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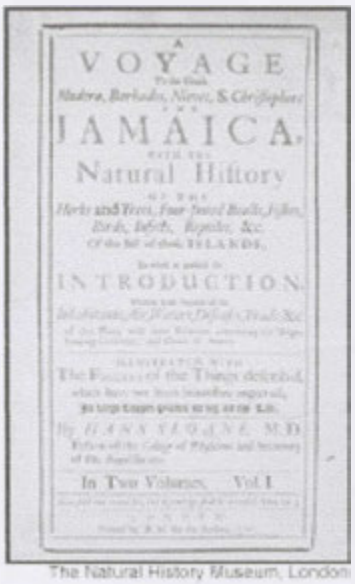
The "Anchovy-Pear Tree," now *Grias cauliflora*, of which Sloane wrote: "The Fruit is by the Spaniards pickled and eaten in Lieu of Mangos, and sent from the Spanish West Indies to old Spain as the greatest Rarity."

The whole ethos behind the Society was the study of nature by careful observation and deduction, a rationalist approach fostered by such revolutionary thinkers as John Ray (1627-1705), the father of British natural history, and the physician and philosopher John Locke (1632-1704), both friends of Sloane. These "new" men of science had no difficulty in accepting the standard religious view that the world and its populating plants and animals were the immutable creation of God, but saw the detailed observation, recording and interpretation of natural phenomena as a legitimate, indeed worthy pursuit. Sloane was firmly in this new mould and had been elected a Fellow of the Royal Society in 1685.

He was interested in all aspects of what we would now call science, from physics and chemistry through geology and palaeontology to natural history. But his first, and most abiding, love was for botany. This is not too surprising, for 17th-century medicine was intimately associated with the study of "simples," the drug plants from which most medicines were obtained. Indeed, Sloane's botanical interest was fostered during his early years in London by the Chelsea Physic Garden, established by the Society of Apothecaries in 1673 specifically for this purpose--and later saved from closure by Sloane's financial intervention. But there were surely many new ones to be discovered and the New World had already provided the Old World with such useful products as the potato, maize, rubber, quinine and tobacco. So when the Duke of Albemarle was appointed Governor of Jamaica and offered the young doctor the post of physician to his family, Sloane jumped at it. The Duke's yacht, two merchant vessels and an escorting naval ship sailed from Portsmouth on 19 September 1687, stopping at Barbados for 10 days before arriving at Port Royal, Jamaica, on 19 December after what for the day was a relatively uneventful passage.



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The frontispiece to Volume I of Sloane's two-volume account of the natural history of Jamaica and its neighbouring islands.

During the voyage, Sloane kept a meticulous journal in which he recorded all manner of observations on the daily shipboard routine, on natural phenomena and on the birds, fishes and invertebrates encountered along the way. He maintained the journal during his 15 months ashore, making notes on all sorts of topics including the weather, earthquakes, the island's topography and the behaviour of the local inhabitants, mainly escaped African slaves. But he also travelled extensively around the island, amassing and documenting a large collection of human artefacts, animals and particularly plants which, whenever possible, he pressed and dried for return to England. In dealing with the plants he was assisted by the first volume of John Ray's *Historia Plantarum*. In this book, Ray had tried to describe all the plant species then known and to arrange them first into major groups and then into smaller ones that he called "genera," each with a synopsis of its characters as an aid to identification and naming. Although this was a great advance over previous works, it was still unwieldy and difficult to use and it would be another half-century before the Swedish scientist Carl (Carolus) Linnaeus provided botanists with a much simpler and user-friendly system.

Fold-out map of the island of Jamaica from Volume I.

Many of Sloane's samples, especially fruits, could not be preserved adequately, so he employed a local artist, the Reverend Garret Moore, to travel around with him and illustrate them while still in a fresh state along with many of the fishes, birds and insects that they encountered. The resulting illustrations, and most of the specimens including some 700 species of plants, eventually accompanied Sloane back to England. The specimens, not yet drawn by Moore, were illustrated by the talented artist Everhardus Kickius. Amongst the specimens he drew was chocolate, which Sloane had found was widely taken in Jamaica for its medicinal properties but was "nauseous, and hard of digestion, which," he supposed "came from the [chocolate's] great oiliness." Sloane discovered that it was much more palatable when mixed with milk and his patented recipe brought him considerable income during his lifetime. In the 19th century, long after Sloane's death, the recipe was taken over by Cadbury, a name now more or less synonymous with milk chocolate in many parts of the world.

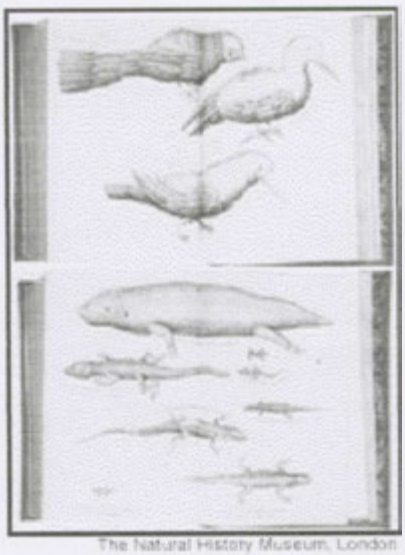
The Natural History Museum, London

An original Cadbury chocolate wrapper from the nineteenth century, crediting Sir Hans Sloane with the recipe for milk chocolate.

Sloane's main official duties in Jamaica were, of course, to look after the health of the Duke and his retinue, though he apparently also treated many others, including the retired buccaneer Henry Morgan, by then respectable, knighted and the island's ex-Governor. But despite Sloane's ministrations, the Duke died in October 1688, still a comparatively young man. So the stay in Jamaica was cut short when the Duchess decided to return home, and Sloane's last duty for his erstwhile employer was to embalm him for the journey. But apart from the rather sad circumstances under which they were travelling, the homeward voyage throughout March, April and May of 1689 was rather more eventful than the outward one. For one thing, Sloane had a number of rather alarming live animals with him on board, including an iguana, a crocodile and a seven-foot-long snake. None survived the journey, however. The iguana inadvertently jumped overboard and was drowned; the crocodile died of natural causes; while the snake, which Sloane had had "tam'd by an Indian, whom it would follow as a Dog would his Master ...," escaped one day from the large jar in which it was kept and was shot by one of the Duchess's alarmed domestic servants. Furthermore, the returning travellers were uncertain of the political situation they would find in England. Having originally left under the Catholic James II, but with dissension in the air, it was not until they approached the British coast that they learned from a fisherman that the Protestant William of Orange was now firmly on the throne.

Once back in London, Sloane picked up the threads of his interrupted career and reacquainted himself with a rapidly expanding circle of scientific acquaintances and correspondents. After almost four further years in the service of the Duchess of Albemarle he returned to private medicine and set up what was to become an extremely lucrative practice in fashionable Bloomsbury, with clients including some of the richest and most prestigious figures of the day. As a result of this, and his marriage in 1695 to the heiress of a London Alderman and widow of a Jamaican estate owner, by the time Sloane died in 1753, at the age of 93, he was a very rich man. He was also very famous, not only as a physician and philanthropist, but also as a man of science and, particularly, as a collector of "curiosities."

Sloane had already started to collect botanical specimens in his youth and during his medical studies in London and in France. But as a result of his sojourn in Jamaica, his collections were enlarged enormously, and he continued to collect assiduously, especially West Indian material to add to his own in preparation for the account he intended to publish detailing his finds in Jamaica. In 1696, he published his *Catalogus Plantarum*, a relatively simple 232-page list documenting all the plants he had found on the island. In doing so he set a high standard for such works, referring carefully to all available earlier sources of information in order to try and avoid the nomenclatural confusion that was all too common in the days before the now universally accepted binomial system was introduced by Linnaeus in the mid-18th century. But the production of the full account of his Jamaican experiences, his *Natural History of Jamaica*, took much longer.



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Illustrated pages from Volume 2 of Sloane's *Natural History of Jamaica*, published in 1725.

The first volume, concerned mainly with plants, was published in 1707, while the second, which included Jamaican zoology, did not appear until 1725. Both were illustrated with engravings by Michael van der Gucht--one of the best in his field--based on original drawings by the Reverend Moore in Jamaica and, more usually, by Everhardus Kickius back in England. Although Sloane published little else of a scientific nature, these volumes so enhanced his reputation that the Royal Society, for which he had already served as Secretary from 1693 to 1713, elected him as President to succeed Sir Isaac Newton who died in 1727. Sloane was to retain this post until 1741 when he resigned it immediately before he gave up his medical practice at the age of 81 to retire to Chelsea.

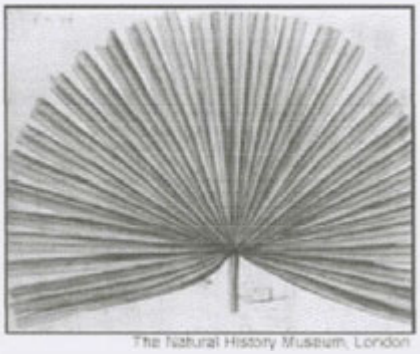
But even in retirement and old age, Sloane continued a wide-ranging correspondence with scientists and received a stream of visitors, both from Britain and abroad, to view his famous collections. Indeed, it is said that during his long life, Sloane knew personally, or by correspondence, everyone who was worth knowing in science, and particularly in botany. By the time of his death, the original basis for the collection--the herbarium of pressed plants--had grown by Sloane's own purchases and his acquisition of the entire collections of other botanists to fill no fewer than 265 huge leather-bound volumes, a nucleus of eight of them devoted to material resulting from the Jamaica period.

The pods of okra (above, left), ladies' fingers, or bhindi, which has the modern botanical name *Abelmoschus esculentus*. The fruit of the "Prickly Pear-Tree" (above, centre)--which has the modern name *Opuntia spinosissina*--had juice with the ability to dye "Linen ... as well as Mouth and Hands, or whatever it touches ..." Perhaps the most familiar of the plants is the sweet potato (above, right), or *Ipomoea batatas*.

Famous though the herbarium was, and still is, it has not been without its critics. In 1736, the 29-year-old Carl Linnaeus, soon to become a far more celebrated botanist than Sloane, visited the 76-year-old physician. Linnaeus was understandably deferential to the older man face to face. But when he returned to Sweden, he was openly critical of what he considered to be a chaotic way of keeping specimens in permanent bindings. For Linnaeus was already employing the later universal

practice of storing his specimens on single unbound sheets that could easily be re-ordered to accommodate changes in the classificatory system used and to allow new material to be incorporated.

But Linnaeus would certainly have been impressed by the sheer volume of Sloane's collections. Apart from the herbarium sheets, a further 12,500 "vegetables and vegetable substances" occupied thousands of small glazed boxes in 90 drawers in five cabinets. But Sloane cast his collecting net much, much wider than botany. His zoological collections, which essentially started with the material he brought back from Jamaica, included almost 6,000 shells, more than 9,000 other invertebrate specimens (half of them insects), 1,500 fishes, about 1,200 birds, eggs and nests, and more than 3,000 vertebrate specimens ranging from stuffed whole animals, through hundreds of skeletons--including that of a young elephant and a whale skull five and a half metres (18 feet) long--to a grisly assortment of bizarre human "curiosities."



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Sloane named the tree from which these leaves came *Palma Brasiliensis prunifera folio plicatili seu flabelli formi caudice squamato*, classifying it as a palm belonging to his group of "Pruniferous Trees."

Even these represented only a fraction of his entire hoard, for Sloane's tastes and collections embraced thousands of fossils, rocks, minerals, ores, metals and precious or semi-precious stones, all either in their natural unworked state or incorporated in jewellery, ornaments or practical objects. His antiquities and ethnographic collections ranged from the classical to the then recent, from the Old World, to the New World and the Orient, and included 32,000 medals and coins. His collection of 300 or so examples of more or less conventional art was neither particularly big nor remarkable, though it included works by some notable artists such as Albrecht D&uumlrer (1471-1528). But the library was perhaps the crowning glory. Containing almost 50,000 bound volumes of published works, many of them lavishly illustrated, as well as an enormous collection of manuscripts and drawings on all manner of subjects, it was undoubtedly one of the most comprehensive libraries of the time.

During his old age, Sloane understandably became increasingly concerned about the fate of the collections after his death. He was most anxious that they should be as accessible as possible to anyone with a genuine interest in them, for whatever purpose. After deciding that no existing institution--the Royal Society, College of Physicians or the Ashmolean Museum in Oxford--would be a suitable repository for the collections, Sloane determined to leave them to the nation. Apart from the stipulation that they should be properly housed, maintained and made accessible, his only requirement was that his two daughters should be paid a total of &pound20,000 for them, much less than the &pound1,000,000 he estimated he had invested in his collections.

Sloane died on 10 January 1753 and his will inevitably caused a good deal of controversy. But the net result was that on Thursday 7 June 1753, the British Museum was established by an Act of Parliament, with Sloane's collections, and two smaller ones purchased to join it, forming the nucleus of the new institution. The government chose to raise the necessary funds by a national lottery, not an unusual practice in the 18th century. From these relatively modest beginnings developed the present renowned institution with its seven million-plus human artefacts in Bloomsbury, over 67 million items in the British Library and 68 million natural history specimens at The Natural History Museum in South Kensington--including Sloane's specimens of the cacao plant, the ultimate source of milk chocolate.

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The cacao tree, *Theobroma cacao*. Writing of the beans, Sloane said, "The Nuts themselves are made up of several Parts like an Ox's Kidney, some Lines being visible on it before broken, and is hollow within, its Pulp is oyly and bitterish to the Taste."