PENELOPE HUNTING

ISAAC RAND AND THE APOTHECARIES' PHYSIC GARDEN AT CHELSEA

The apothecary Isaac Rand (1674–1743) was the first Horti Praefectus et Praelector Botanicus Chelseiani — *Director and Lecturer in Botany at the Society of Apothecaries' Physic Garden, Chelsea. The Garden, established in 1673, became pre-eminent among the botanic gardens of Europe in the eighteenth century following a favourable lease granted by Sir Hans Sloane in 1722 and the appointments of Rand as Director and Philip Miller as gardener. Rand was renowned as a diligent botanist and enthusiastic 'herbarizer' and he was responsible for presenting nine hundred specimens of new plants grown at the Chelsea Garden to the Royal Society. He compiled two catalogues of the Garden (1730, 1739) and established an exchange of plants and seeds with Professor Boerhaave of the Leiden Physic Garden, the Netherlands. Rand encouraged artists such as Elizabeth Blackwell and Georg Dionysius Ehret to draw plants cultivated at the Physic Garden in prime condition. He bequeathed his* hortus siccus *and library to the Society of Apothecaries and the plant collector Dr William Houstoun named the shrub* Randia *in his honour.*

The apothecary Isaac Rand (1674–1743) was the first to bear the title *Horti Praefectus et Praelector Botanicus Chelseiani* — Director of the Garden and Lecturer in Botany at the Society of Apothecaries' Physic Garden, Chelsea. It was due to the diligence of Rand as Director, the skill of Philip Miller the gardener and the patronage of Sir Hans Sloane, Lord of the Manor, that the Chelsea Physic Garden became renowned as Europe's most richly stocked botanic garden and an important centre of botanical activity, teaching and research.

The early eighteenth century has been described as stagnant as far as natural history in England was concerned,[1] but this was not the case with respect of botany and horticulture at the Chelsea Physic Garden. The Society of Apothecaries maintained the Physic Garden during a difficult period in the 1680s, entrusting it to the care of Samuel Doody from 1692, succeeded by James Petiver as Overseer (1708–18) who, with the assistance of Rand, rekindled interest in herbarizing and injected the Garden with vigour. The impetus provided by Sloane's lease of 1722, combined with the appointments of Rand and Miller enabled the Chelsea Physic Garden to reach its apogee.

After the Peace of Utrecht in 1713, England enjoyed a period of commercial expansion and foreign trade with the West Indies, Africa, the Levant and North America.

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Similarly, Dutch sea power in the East Indies and Cape of Good Hope opened new markets in strange lands with the result that hitherto unknown trees, plants and seeds reached London and Leiden. The exchange of rare specimens between the physic gardens at Leiden and Chelsea, first established in 1683, was revived after 1711 and the increase of the collection at Chelsea was given added incentive from 1722. At a time when it was supposed that every plant possessed the potential to cure something, it was in the interests of physicians, apothecaries, botanists and the general public that the collections of physic gardens be increased and studied. Under the directorships of Professor Herman Boerhaave at Leiden and Isaac Rand at Chelsea, the respective physic gardens were enriched and catalogued. Boerhaave's Index of plants at Leiden listed some 3700 in 1710; in 1719, he catalogued 5849 different plants grown there. At Chelsea, Rand listed nine hundred different specimens cultivated at the Garden between 1722 and 1739, and the number reached 3150 by 1796. When the Swedish naturalist Pehr Kalm visited Chelsea in 1748, he found 'one of the largest collections of all foreign plants, so that it is said in that respect to rival the Botanic Gardens of both Paris and Leiden. At least it is believed to overgo them in North American Plants'.[2] Seeds and plants from the American colonies were sent to Chelsea by collectors such as Mark Catesby, Dr William Houstoun, Robert Millar and John Bartram, for whom Peter Collinson acted as intermediary. Collinson, the owner of a garden at Mill Hill well-stocked with American plants and unusual trees, judged that the Chelsea Physic Garden excelled 'all the gardens of Europe for its amazing variety of plants of all orders and classes, and from all climates'.[3]

Rand was recognized as an enthusiastic botanist and collector of plants while still in his twenties. Dr Leonard Plukenet, supervisor of the gardens at Hampton Court Palace, described Rand as *stirpium indagator diligentissimus et magnae spei botanicus* (the most diligent searcher of plants and the great hope of botany) in 1700.[4] Rand was described as the Curator of the Chelsea Physic Garden in 1712 and its Keeper in 1719. He was officially appointed Director in 1725 and from 1733 was given the title *Horti Praefectus et Praelector Botanicus Chelseiani* (Figure 1). He wrote two Indexes of the plants at the Garden and compiled an annual catalogue of plants growing there for the Royal Society; he held positions of responsibility in the Society of Apothecaries for thirty years and Houstoun named the shrub *Randia* in his honour.

RAND AND THE SOCIETY OF APOTHECARIES

Isaac Rand was made free of the Society of Apothecaries in 1697 and commenced practice as an apothecary from his shop on the north-east side of the Haymarket, Westminster. His father, also Isaac, was a gentleman of Maidstone, Kent, and the family seems to have had connections with the Society of Apothecaries through William Rand, James Rand Sr and his son, also James. William, described as a 'doctor of the liberal arts and of physick', was associated with Nicholas Culpeper (of *Herbal* fame) as co-translator of *The Idea of Practical Physick* (London: P. Cole, 1657) and *A Sure Guide or the Best and Nearest Way to Physick and Chyrurgery* (London: P. Cole, 1657). Both books were printed after Culpeper's death and, despite his widow's affirmations, attribution to Culpeper is dubious. The author or co-author, William Rand, was a freeman of the Society of Apothecaries in the 1660s but took no major part in the company's affairs. James Rand Sr, on the other hand, was Renter and then Upper Warden and on the death of the Master, Rand was nominated for that office in January

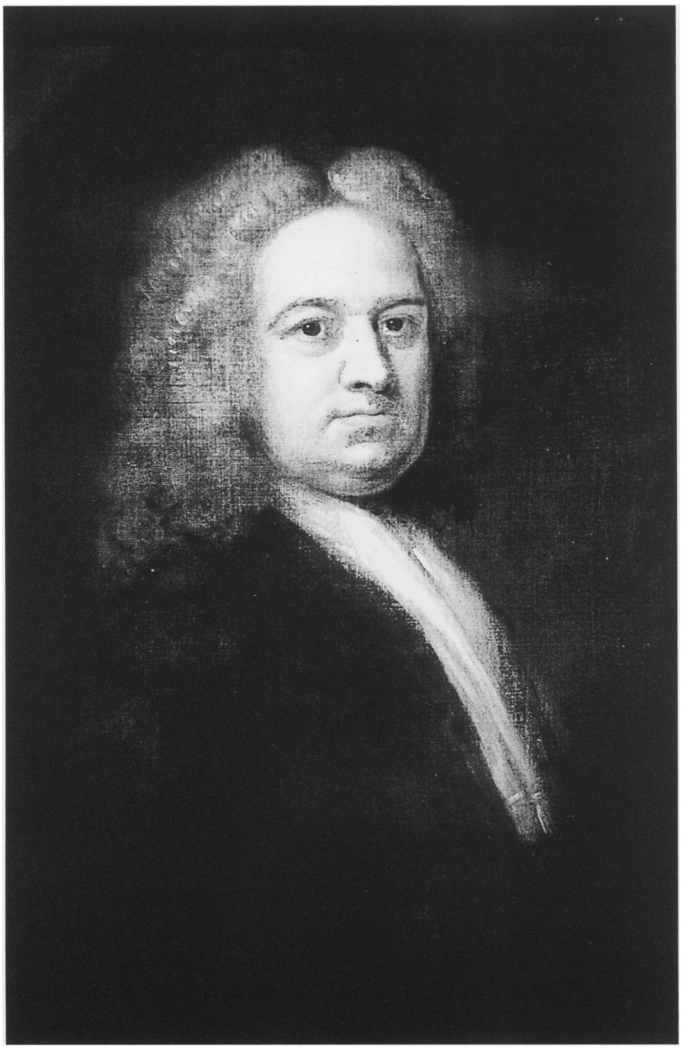

Figure 1. Portrait of Isaac Rand, attributed to John Ellys (1732). Ellys was a pupil of John Vanderbank and the style resembles the portrait of Sloane attributed to Vanderbank in the British Museum. Reproduced by permission of the Society of Apothecaries.

1681, choosing instead to pay a fine and be excused. James Rand and John Gaunt, to whom Isaac Rand was apprenticed in 1687, were early supporters of the Apothecaries' Physic Garden which was established in 1673 on fertile ground beside the Thames at Chelsea for the cultivation of medicinal plants and as a place to berth the Society's ceremonial barge. The first step towards protecting the plot of nearly 4 acres was taken in January 1675 when a group of senior Apothecaries, including James Rand and John Gaunt, pledged to subscribe to the cost of building a wall 'about ye Ground at Chelsey for a Garden' (Figure 2).[5]

At the Chelsea Physic Garden, the Apothecaries cultivated the plants and trees needed for medicines, drugs and lotions. Large quantities of mint were processed into oil at the laboratory at Apothecaries' Hall, Black Friars Lane, and good crops of sage, rue, pennyroyal and sweet marjoram were harvested.[6] The Garden provided an essential source of supply; it also fulfilled an educational function, for it was imperative that

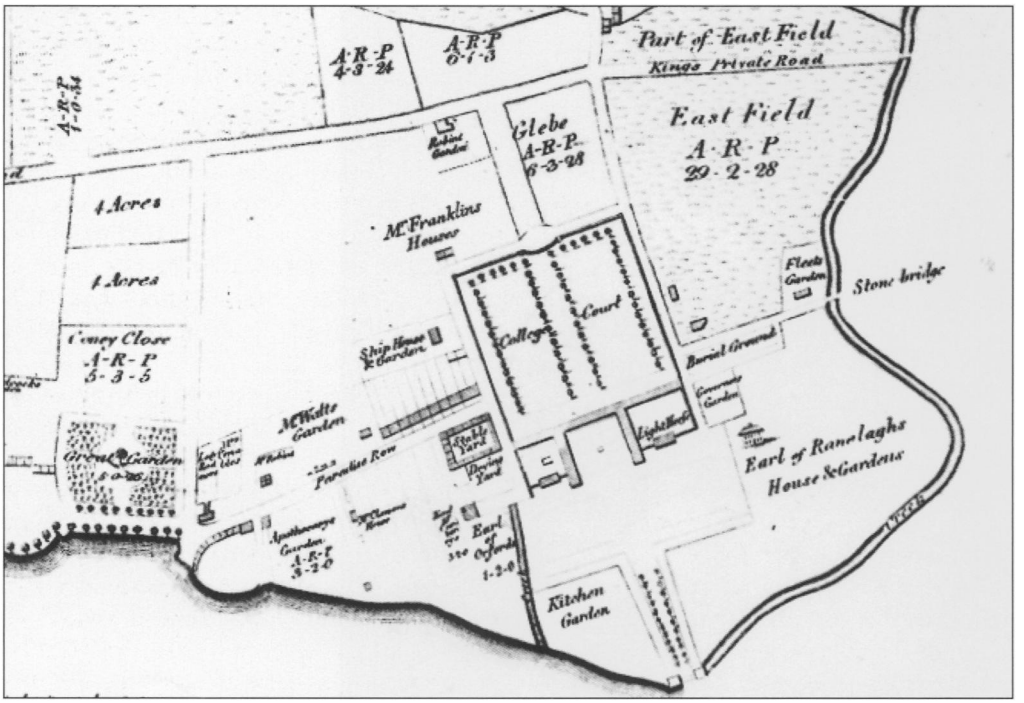

Figure 2. Detail from James Hamilton's map of Chelsea (1666–1714) showing the Apothecaries' Garden established beside the Thames in 1673. Reproduced by permission of the Royal Borough of Kensington and Chelsea Libraries and Arts Service.

physicians and apothecaries possessed a knowledge of plants, their therapeutic properties and uses. The Society's Botanical Demonstrator was responsible for instructing members and apprentices by means of practical demonstrations at the Garden and herbarizing expeditions — one of those to benefit from instruction was the young Hans Sloane, who was also acquiring a knowledge of chemistry at Apothecaries' Hall. While the Garden was a practical and educational asset for members and apprentices, to visitors it was a source of wonder: exotic plants flourished in the stove with its innovative subterranean heating, and the first cedars of Lebanon to be raised in this country were viewed with interest. In 1685, the diarist John Evelyn commented on the many rare annuals to be found there, also the Cinchona tree from Peru, which yielded 'Jesuit's bark', the source of quinine.[7]

The maintenance of the Physic Garden presented problems; it was a financial burden to the Society of Apothecaries and when the gardener went missing in September 1689 some one thousand plants were stolen and the ground lay uncultivated. In the absence of a gardener or Keeper, the apothecary Samuel Doody assumed responsibility in 1692, assisted by a small group of enthusiastic botanist-apothecaries. Shortly before his death in November 1706, Doody ordered that an inventory of the plants at the Garden be made, so James Petiver led an inspection that produced a first, elementary catalogue.[8] The plants and trees were arranged in compartments described as 'ye nursery quarter, ye north east quarter, Bromwiche's quarter'. Double rows of yews and junipers lined the cross walk and the 'nursery quarter' containing yews, laurels and junipers grown to a

height of about 4 feet, was protected by 'a rampart hedge'. There was an ample stock of holly trees, a few apple trees, one 'great acacia' and the herbs were grouped together. In the greenhouse nearly three hundred plants and trees were cultivated and seedlings were nurtured: thirty-four orange trees, bay trees, 'two olives at six feet ... one very large American aloe in a tub with suckers ... Indian jasmines yellow' and five pomegranates. Facing the greenhouse were '23 *Ficus indica* in potts' (the juice of the Indian fig or prickly pear was used to ease toothache and in diabetes), 'sorrell trees' and '12 pyramidal holley in potts'. In the 'stove', warmed by two fires and set on beds of fermenting oak bark, a ginger plant, yuccas and an arbutus (the fruit was taken as a narcotic) were to be found. Also under cover were three species of geranium, two of which have been 'tentatively identified' as *Pelargonium gibbosum* (L.) Hérit and *P. capitatum* (L.) Hérit, the former possibly the first instance of its cultivation in Britain.[9]

After Doody's death, the future of the garden came under review: the Apothecaries approached the Lord of the Manor, Lord Cheyne, who refused to part with the freehold for less than £400, which was dismissed as unreasonable. Some senior Apothecaries thought that the time had come to dispose of the Garden, but this view was opposed by a more positive contingent headed by James Petiver, Isaac Rand and Joseph Miller. They were convinced that the Physic Garden was essential to apothecaries' knowledge of botany and the *materia medica*, and in 1708 members of this consortium agreed to contribute £100 per annum for seven years towards 'reviving and improving' the Garden.[10] Petiver soon emerged as the chief manager of the Chelsea Garden; he practised at the sign of the White Cross, Aldersgate Street, in the City of London, and was Apothecary to the Charterhouse. He was a botanist, author, prodigious correspondent, an indefatigable collector and a Fellow of the Royal Society. As Overseer of the Garden and the Society's Botanical Demonstrator, he urged that the Apothecaries' expeditions to collect and examine plants, called herbarizings, should be extended so as to find new specimens for the Physic Garden and in this he was assisted by 'our honest friend Mr Rand'.[11]

The Society of Apothecaries' herbarizings had originated in 1620 as a means of botanical field instruction and under the leadership of Petiver and Rand in the early eighteenth century they were held once a month between April and September. Herbarizings took two forms: private herbarizings were for apprentices under the supervision of the Demonstrator, who instructed them in the recognition and properties of plants used in the Apothecaries' *materia medica*. The general herbarizings were more dignified, longer expeditions for members and guests such as Sloane, culminating in a lecture or demonstration of the plants collected and a dinner. The herbarizings 'without any doubt, were the major seminal influence in the establishment of that great field tradition that forms the core of modern natural history'.[12] Botanists on the Continent such as Bernard de Jussieu, Albrecht von Haller and Carl Linnaeus followed the example of the Apothecaries' herbarizings and in England individuals and societies interested in medicine and botany did the same.

By 1712, word had spread that the Apothecaries' Garden at Chelsea was reinvigorated. Jacob Bobart of the Oxford Physic Garden had gathered from Petiver and from Rand's letters 'and all other accounts that ye Chelsey Garden makes a very honourable figure, which is no wonder, under the conduct of so able managers as you are'. With Petiver, Rand was credited for rekindling the flame of botany: 'I doubt not but by the great care (added to yours) of our good Friend Mr Rand, to whom when

opportunity serves, I beg that my service be presented, your prosperity is great and Botany increased among you', Bobart wrote.[13]

At this time, Petiver was working on an 'Account of Rare Plants lately observed in Several Curious Gardens about London and particularly the Company of Apothecaries' Physic Garden at Chelsea'. This series, published in the *Philosophical Transactions* of the Royal Society (1711–14), described the rare plants, some from North America, China and the Cape of Good Hope, that were being successfully cultivated at Hampton Court, in the Bishop of London's Fulham garden, in the Duchess of Beaufort's garden at Chelsea and above all at the Apothecaries' Physic Garden. Petiver's 'Account' approximated to a printed catalogue of the rare plants at Chelsea and was recommended as such.[14] His dedication to the Garden was expressed in his will, written in fear of imminent death during a sea-crossing to the Netherlands in 1711: he wanted £100 to be given to 'the benefit and improvement of the Physic Garden', to stock it annually with exotic plants and promote lectures in botany.[15] As it happened, Petiver survived the journey and resumed his botanic activities, organizing the Apothecaries' herbarizings and arranging the exchange of seeds and plants between the Physic Garden and contacts abroad. He wrote to Rand requesting seeds from Chelsea for Monsieur Riqueur (apothecary to the late Queen of Spain) and by way of return Riqueur sent seeds and 'many other curious Plants which he collected about Madrid'. Petiver forwarded to Rand fresh seeds received from Tuscany, others from a contact in Saxony, a score of seeds from Paris and more from Italy. Dr Salvador sent a parcel for Rand from Barcelona, and roots from the mountains of Silesia were likewise destined for the Chelsea Garden.[16]

In some respects Petiver deferred to Rand, asking for his comments on the tables and plates he was preparing, apparently for his *Catalogue of Mr Ray's English Herbal, illustrated with Figures* (London, 1713) and he wanted Rand to correct a draft of *The Graminum, muscorum, fungorum, submarinorum ... Britannicorum Concordia* (London, 1716). Rand's criticism of his friend's work was forthright: he pointed out omissions and 'the insufficiency of your Tables to give any learner an idea of his [Ray's] method, which, as I take it, is your design'. He signed himself off as 'without prejudice or partiality, your humble servant, I. Rand'.[17]

Rand's competence was recognized by the Court of Assistants of the Society of Apothecaries (the governing body) in 1713 when he was summoned to appear before the Court to be formally thanked for his attendance at all the company's herbarizings 'and his great pains therein and in the inspection and care of the garden'. Henceforward, Rand was excused the onerous and sometimes expensive duty of Steward for the general herbarizing.[18] This was at a time when support for the Garden was dwindling. Many individuals who had in 1708 promised to subscribe regularly to its maintenance now refused to do so. The burden lay on the few, notably Petiver and Rand, to uphold the botanical flag for the Society.

In 1713, Dr Sloane became the Lord of the Manor of Chelsea, hence the landowner of the Physic Garden. This raised the issue of the future of the Garden, a subject that came to the fore when a committee (including Rand) reviewed the Society's Ordinances in 1714. It was decided that a deputation (the Master, Past Master Peter Gelsthorpe, Petiver, Rand, Robert Nicholls and the Clerk) should 'wait on Dr Sloane' to ascertain his views and possible future interest in the Garden. Sloane's response was positive but it was only after a second approach in June 1718 that he declared himself 'very ready to settle the garden on the Apothecaries according to his former intention'.[19] While the

formalities proceeded slowly, Sloane signified his approval of Rand, described as Keeper of the Physic Garden, by proposing him for Fellowship of the Royal Society, to which he was elected on 5 November 1719.

Sloane's influence in the Royal Society was pervasive and longstanding: as Secretary (1694–1713), Editor of the *Philosophical Transactions* for twenty years and President (1727–41), he encouraged the presentation of papers dealing with natural history, medicine and botany; he oversaw renovations to the Society's repository of curiosities and during this period several botanists and horticulturalists were elected Fellows (Richard Bradley, Doody, Petiver, James Sherard, Patrick Blair, Rand, Miller, John Martyn, Johann Jakob Dillenius, Collinson). At the meeting in November 1728 when Sloane was declared President for the forthcoming session, Rand was elected to the Council for the first time. Over the last five years he had made his presentations at meetings on the Apothecaries' behalf and he was to make a significant contribution to the Royal Society by presenting and cataloguing nine hundred different plant specimens from the Physic Garden. He also reviewed Martyn's *Historia Plantarum Rariorum* (London, 1728) for the Society, he communicated a letter about the properties of mineral water at West Tilbury, helped audit accounts and sat on a committee organizing chemical and electrical experiments to entertain Frederick, Prince of Wales. Rand's interests were not confined to botany; he was familiar with the laboratory at Apothecaries' Hall and with chemistry, and in common with other Fellows of the Royal Society he was intrigued by the unusual, whether it was a black vitrified substance from a fire or an extraordinary hen's egg, and he showed these curiosities at meetings.[20]

RAND'S COLLEAGUES AND CORRESPONDENTS

The deaths in 1706 of John Ray, author of the textbook of English botany, *Synopsis Methodica Stirpium Britannicarum* (London, 1690), of Dr Leonard Plukenet the Queen's botanist and of the apothecary Samuel Doody left the circle of English botanists depleted. With the death of Petiver in 1718, the group shrank further, prompting Dr William Sherard's lament that many of his botanic friends were dead 'and not one new one sprung up but my brother and Mr Rand, who are both engaged in business'. In May 1720, Sherard rallied his few surviving friends: Tilleman Bobart, Revd Thomas Manningham, Charles du Bois, Rand and his brother James, who assembled at his lodgings 'where we remembered all our Botanic friends. ... It is the first time so many (for there are few more) have met together since I came into England'. A year later Sherard again despaired: Rand had suffered 'a severe first fit of the gout, leaving him with an ugly cough and a great defluxion on him' from which he was recuperating at Eltham. Moreover, the gardener at Chelsea had died and the chief servant fled, leaving no one to take care of the Garden. Du Bois and Thomas Dandridge were also ill: 'of the few Virtuosi left, three are in a bad state of health', Sherard concluded.[21] Matters were soon to improve: Sherard brought the German botanist Dillenius to London in 1721, there was renewed activity at the Chelsea Physic Garden from 1722, a revised edition of Ray's *Synopsis* was published in 1724 and Martyn's Botanical Society provided a new focus for London botanists between 1721 and 1726.

After his return from Smyrna (Izmir) in 1717, Sherard, a lawyer by training, devoted himself to botany and at his death in 1728 the Sherardian Chair of Botany at the University of Oxford was founded. His younger brother, James, established the celebrated garden at Eltham that was catalogued by Dillenius and frequented by Rand.

Figure 3. Rand's oak blite illustrated by James Petiver in his *Catalogue of Mr Ray's English Herbal* (1713). Reproduced by permission of The British Library, 443.e.11.

Together, James Sherard and Rand went on plant-gathering expeditions, sometimes lasting ten or twelve days, and in July 1722 the pair set off 'to search the coast of Sussex' escorted there by Manningham, the botanizing Rector of Slinford.[22] The brothers Sherard, Dandridge, Petiver, Martyn and du Bois were among those led by Rand on the Society of Apothecaries' herbarizings in the countryside around Putney, Hounslow Heath, Hampton Court, Dulwich and Richmond. On these and other expeditions, Rand established a reputation as the discoverer of hitherto unknown and often inconspicuous plants. Trimen and Dyer's *Flora of Middlesex* (London, 1869) credits him with first identifying and recording '*Matricaria inodora*' (first observed by Rand along the way to Chelsea, 1724), '*Mentha pubescens*' (found in and around some ponds near Marylebone, *c.*1700), '*Plantago media*' (from Hounslow Heath, *c.*1720), '*Chenopodium glaucum*', which Petiver called Rand's oak blite (growing plentifully in Tothill Fields, Westminster, *c.*1705) (Figure 3), '*Rumex maritimus*' (in a moist place near Burlington House, *c.*1700,

behind Montague House and 'about St Giles'), '*R. palustris*' (from Tothill Fields, *c.* 1700) and '*Carex paludosa*' (in ditches by the King's Arms, Whitehall, *c.*1716). Jointly with James Sherard, Rand first recorded the wild carrot, '*Daucus gummifera*' (near Dover), '*Gramen acutiformis*' (found in a pond near Eltham and in ditches near Whitehall) and '*Ajuga reptans*' in Stokenchurch Woods. According to *The Flora of Berkshire* (Oxford, 1897), Rand's sole discovery in that county was a form of '*Malva sylvestris*' within the walls of Windsor Castle.[23]

Furthermore, in the third, enlarged and corrected version of Ray's *Synopsis Methodica Stirpium Britannicarum* (London, 1724), Rand's name is attached to two dozen plants and he is praised with du Bois, Dale and Manningham as botanists who communicated their observations to this edition. There was some debate about who should be credited with editing the volume: Dillenius and William Sherard had amassed much of the new information and Sherard thought Rand was 'the properest person' to be editor 'but refuses', so the book came out under Dillenius's name.[24]

The most distinguished of Rand's botanical correspondents was Professor Boerhaave, the Dutch physician who occupied the Chair of Botany at Leiden University (1709–29). As Prefect or Director of the Leiden Physic Garden, Boerhaave was in a similar position to Rand at Chelsea, being responsible for demonstrating the plants and increasing the collection. An exchange of plants between Leiden and Chelsea had been initiated in 1682, as a result of which the Chelsea Garden received the four cedars of Lebanon that were a major feature of the Garden for generations. Medico-botanical relations between Leiden and London were sustained by the many English students who attended Leiden University, and in 1711, the apothecaries Petiver and James Sherard were in the Netherlands renewing contacts with Boerhaave and other botanists. Petiver then published a catalogue of the rare plants in the Leiden Botanic Garden, a vital tool in the exchange of seeds, plants and occasionally trees between Leiden and London that ensued. Rand's correspondence with Boerhaave commenced in 1712, the year he first sent seeds for the Leiden Garden and at the beginning of Boerhaave's *Index Seminum Satorum* (1712–27) 'Isaacus Rand' is noted as '*pharmacopoeum Londinensem & curatorem horti Chelseiani ibidem* at hew market, London'.[25] Boerhaave considered Rand to be the Curator of the Chelsea Garden even before Petiver's death and when in April 1718 he heard that Sloane intended to convey the Chelsea Garden to the Apothecaries, Boerhaave expressed his approval — of Rand especially. 'I particularly applaud that they have put at the head that man who has grown to the task. If I should in any way be able to further the cares of worthy Rand, I shall always do so gladly.'[26] The next day Boerhaave sent packages to Rand, followed by seeds from America 'pour embellir le jardin de Chelsea'. In return, he pleaded for a replacement for a cedar tree that had died at Leiden with Rand's advice on the best method of cultivation.

William Sherard often acted as agent for the parcels of seeds, books and boxes of plants that travelled to and from Leiden and Chelsea. Boerhaave sent Sherard seeds obtained from Ceylon to be shared with Rand, thanking the latter for 'the beautiful plants' received. On another occasion, Boerhaave was delighted by the arrival of a case of sixty-five plants from Sherard and another thirteen from Rand in very good condition. Boerhaave, who was creating an arboretum at Oud-Poelgeest, near Leiden, was anxious to have from Rand the names of all the willows at Chelsea, and he conveys his respects to his British friends to whom packages should be forwarded: 'to the noble Sloane, Mead [Dr Richard] and Rand, who is so precise in Botany; and that the book in which their

names are written is offered them' (probably copies of his Index of the Leiden Garden, 1710). Between 1712 and 1725, Boerhaave sowed and planted 625 seeds and living plants received from Rand and his valedictory oration of 1729 mentioned the debt he owed to 'the Prefect of that Garden, the meritorious Isaac Rand'. Boerhaave also corresponded with Philip Miller, to whom lists were sent with instructions, 'look for them, buy them for me and let me know what you have spent so far'. Boerhaave promised to find the plant he referred to as '*Euphorbium Africanum*' for Miller but becomes impatient when Miller fails to complete his commission.[27]

Rand's correspondence with Boerhaave paved the way for Miller's visit to the Netherlands in 1727 to procure new stock for the Chelsea Garden. He returned with more than two hundred plants, including the prized Chilean strawberry, and while in the Netherlands he had the satisfaction of seeing for the first time the Moss Provence Rose, growing in Boerhaave's garden near Leiden. Miller was presented with a plant, and according to his biographer, this became his favourite rose.[28] The rewarding nature of this visit to the Netherlands was forgotten by Miller when, forty years later, he claimed that the voyage had cost him £20 'and he never received a shilling' from his employers, the Society of Apothecaries.[29]

A letter from Boerhaave introduced Carl Linnaeus to Sloane in 1736. Subsequently, Linnaeus was shown round the Chelsea Physic Garden by Miller, who reacted to Linnaeus's suggestion that there was a simple method of naming plants with a scowl. On a second occasion Miller obliged by giving Linnaeus the plants he wanted, including some from North America. That summer Linnaeus met James Sherard, Collinson and Dillenius, but there is no record of a meeting with Rand, who was unreceptive to binomial nomenclature, as Linnaeus commented, 'Il suffit à Rand d'avoir un synonyme unique pour chaque plante'.[30]

The international web of botanists, apothecaries and plant collectors corresponded and exchanged species to mutual advantage. Coconuts were received at Chelsea from Barbados, from Chelsea cotton seeds were sent to Georgia, sixty-nine different sorts of seeds were procured from the Chelsea Garden for planting in Pennsylvania and cones produced by the Chelsea cedar trees were in demand at home and abroad. In this country there was an equally productive exchange between landowners, botanists and gardeners: Alexander Pope asked for cuttings from Chelsea for the garden he was creating at Twickenham and Lord Petre conferred with Miller about his garden at Thorndon Hall, Essex. The Duchess of Beaufort at Badminton and Chelsea and Dr Richard Richardson in Yorkshire were among others who traded specimens and seeds with the Chelsea Physic Garden.[31]

One of Rand's correspondents was Samuel Brewer of Yorkshire, latterly gardener to the Duke of Beaufort, and the discoverer of a species of rock rose called *Helianthemum breweri* Planch. Brewer irritated some correspondents with his repeated demands for plants, but Rand was on good terms with him. 'When I shall have the happiness of seeing you at Chelsea I shall be very glad to supply you with what I can', Rand wrote in 1718. 'We have two Capiscum; that perennial one is with a very small upright fruit, commonly called Birdspepper at Barbadoes; the other has hardly made fruit yet.' Some plants had not survived the winter: 'the gardeners have lost both the Henbane and Lotus, though the latter grew well, and we had made three or four Plants of it. We have lost the *Flos Solis Scrophulariae folio* and the Cortusa, and I fear the Canary Balm, it is very sick'. Rand sent Brewer books — by John Parkinson, Dr Fuller's *Pharmacopoeia*, Ray's

Synopsis and his own 'Index to the Officinal Plants which we have at Chelsea, that our Company ordered me to print'.[32]

The Revd Adam Buddle, who is remembered in the shrub *Buddleja*, was known to contemporaries as 'the top of all the moss-croppers'.[33] Buddle sent his collection of mosses to Petiver, Doody and Sloane for their perusal in 1699 — a collection considered so exceptional that it was transmitted to the French expert, J. P. de Tournefort. When in London Buddle herbarized around Hampstead where he collected unusual specimens with Sloane, Petiver, Sherard and Dandridge.[34] He took a proprietorial attitude towards the Chelsea Physic Garden, writing to Richardson with a request for seeds and roots of northern plants for himself and for Chelsea 'which is now putting into very good order; and in the first place we design (for I call myself of the number) to cultivate all the rare English plants we can get to grow there'.[35] Buddle's life work was 'Hortus Siccus Buddleanus sive Methodus nova Stirpium Britannicarum', which he dedicated to the Bishop of Carlisle, the Revd Stephens of Cornwall, Sloane, Richardson, Bobart, du Bois, Samuel Dale, Dare, Petiver, Rand and Miller, 'ye chief Botanists of our Age ... who have survived ye much lamented death of ye incomparable Mr Ray'. This exhaustive work defeated Buddle — he died in 1715 and the work remains unpublished. Nevertheless, Buddle's botanical papers reveal his reliance upon Rand, for example: 'desire Mr Rand to find out this ... enquire of Mr Rand ... show Mr Rand the Greenwich verbascum absinthum scabiosa'. Buddle also set himself the task of listing the local (common) names of plants: kiss-me-at-the-garden-gate for pansies, go-to-bed-at-noon is goat's beard, etc. Buddle has gone down in botanical history as 'the first to notice many of the less attractive species about town'.[36]

John Blackstone, an apothecary of Fleet Street, ventured further afield, collecting plants around Harefield, which he recorded in *Fasciculus Plantarum circa Harefield sponte nascentium* (London, 1737). He claimed to have discovered the first *Dentaria bulbifera* (toothwort) in Britain, about which he consulted Sloane, Dillenius and Rand 'and some others who are lovers and promoters of this useful knowledge. ... I have orders to get specimens for the Chelsea and Oxford Gardens', he wrote.[37] This he did and *Dentaria bulbifera* was catalogued among the specimens growing at Chelsea on Rand's list to the Royal Society for 1737.

As Blackstone and Buddle sought the advice of Sloane and Rand, so did Dr Patrick Blair, who hoped to recruit Sloane's support in founding a learned society of natural history in Dundee. Blair's career reached a low point with his imprisonment in Newgate Goal on charges of implication in the Jacobite Rebellion of 1715. Through Sloane's influence he was freed, whereupon he retreated to Lincolnshire to write *Botanick Essays* (London, 1720), which alludes to Rand as 'an Ingenious and Expert Botanist, Overseer of Chelsea Garden'. Blair's publication prompted a correspondence with Philip Miller, whose landlord proposed to dismiss him unjustly, as Blair explained to Sloane. 'He therefore earnestly begs of me that since you deservedly have the nomination of an Gardner to the Chelsea Garden which I understand is now vacant that I would address you, in his behalf that at least you would accept of him as an Candidate'. Blair extolled Miller's 'exactness and diligence ... curiosity and Genius ... and knowledge in the improving of Ground'. He had not personally met Miller, although Rand and Joseph Miller (Master of the Apothecaries, 1738–39) were already acquainted with him.[38] Miller was duly chosen as Gardener and began work at Chelsea in the summer of 1722. Blair continued to correspond with him although it was Rand he sent a large gourd filled

with seeds for the Garden (dry gourd shells kept seeds fresh during transit), and when in 1724 Blair was planning to stock his own greenhouse, it was Rand 'or the other Apothecaries who have the inspection of the Chelsea Garden' to whom he appealed for plants or seeds.[39]

John Martyn was another promising young man Blair sent with a letter of introduction to Sloane, 'where all things centre'.[40] Martyn took part in the Society of Apothecaries' herbarizings and in May 1720 he reported to Blair that 'we made a pretty good collection and Mr Rand showed us that *Lychnis sylvestris rubello flore* has male and female in diversis plantis'. This was one of the plants that puzzled botanists until repeated experiments established decisively the doctrine of the sexes of plants; following Rand's demonstration, Martyn dug up a female *Lychnis* and planted it in a pot to observe its progress. Blair was delighted to hear that Martyn was herbarizing with the Apothecaries and congratulated his protégé on being accepted by two 'such eminent Botanists as Dr Sherard and Mr Rand'.[41]

In 1721, Martyn founded a Botanical Society that met at the Rainbow Coffee House, Watling Street, and later at members' houses. At meetings, members were expected to exhibit unusual plants and explain their uses. The Temple Coffee House Botanical Club, patronized by Sloane, Lister and the older generation in the 1690s, had ceased to function and its substitute, Martyn's Botanical Society, drew inspiration from the botanical activities of the Society of Apothecaries. As its Secretary, Martyn organized botanical walks or herbarizings and it is clear that Rand led some of these expeditions and catalogued the plants collected.[42]

Martyn was appointed Professor of Botany at the University of Cambridge in 1733 and he published *Historia Plantarum Rariorum* (London, 1728–38) with fifty plates by Jacobus van Huysum illustrating many of the plants grown at Chelsea itemized by Rand in his presentations to the Royal Society. In his Preface, Martyn wrote of the pre-eminence of the Chelsea Garden under the curatorship of '*eruditissimo Rando*' and he gave the Chelsea plants precise references to Rand's lists in the *Philosophical Transactions*. Martyn also gave the provenance of plants, for example the new genus *Martynia annua*, named after the author and received at Chelsea in 1731 from Houstoun in Vera Cruz, and what Martyn noted as '*Geranium folio alceae*' sent to Chelsea by Boerhaave. Rand was impressed, communicating his approbation of Martyn's work and the illustrations in particular to Fellows of the Royal Society. Rand subsequently encouraged other botanical artists to draw plants at the Chelsea Garden (see below).

THE RENAISSANCE OF CHELSEA PHYSIC GARDEN

When the Society of Apothecaries came to review their Ordinances in 1714, financial provision for the Physic Garden was on the agenda and it was decided to seek an interview with the landlord, Dr Sloane. Negotiations led to the indenture of February 1722 whereby Sloane endowed the Society of Apothecaries with the Physic Garden in perpetuity for a nominal rent of £5 a year on condition that the Apothecaries presented to the Royal Society specimens of fifty plants grown in the Garden, dried and named, annually. No plant could be presented twice and the collection was to expand to two thousand specimens (the number exceeded 3150 by 1796).[43] Not only did Sloane's lease secure the future of the Garden as a scientific training ground, but also it ensured that the collection of plants increased steadily. Sloane's munificence was acknowledged by the

apothecary Joseph Miller, author of *Botanicum Officinale* (1722), in which he referred to Sloane's early application to botany

> nor could You give a more convincing Proof of a generous Desire to promote so useful a Knowledge, than Your late noble Present of the Physic Garden at Chelsea to the Apothecaries Company, on condition of its being kept to the Improvement of Botany. As this has laid all the Lovers of that Study under the greatest Obligation; so we hope, from the Direction it is now under, to see it put into such a flourishing Condition, as may render it a lasting Monument of your Generosity and publick Spirit.[44]

The direction of the Garden lay with Rand and responsibility for carrying out the conditions of Sloane's lease fell upon him as the first *Horti Praefectus* under the new regime.

Rand had risen steadily in the hierarchy of the Society of Apothecaries. The Court had acknowledged his dedication in 1713, he became a liveryman the following year and served on the Apothecaries' garden committee, on the committee for the laboratory, the charter committee, the committee reviewing the Ordinances and he was generally acknowledged as the Curator, Keeper or Overseer of the Physic Garden. In the wider botanical circle, he was 'the good friend'[45] of Bobart and the Sherards and a correspondent of Boerhaave. Most crucial as far as the Physic Garden was concerned, Rand had the confidence of Sloane whom he had met on herbarizings, during negotiations with the Apothecaries, and two letters suggest that Rand and Sloane liaised professionally.[46]

In accordance with Sloane's lease, Rand prepared the first fifty specimens from the Chelsea Garden, which were presented 'carefully preserved with a catalogue of their names' to the Royal Society by Rand and the Apothecaries' Clerk, John Meres, in March 1723. The Council of the Royal Society expressed its appreciation of 'the great care they have shown in the method of curing and preserving the said specimens',[47] which began with *Anemone virginiana* L. — the first of forty-eight American plants first cultivated in this country at the Chelsea Garden, as reported to the Royal Society. Rand's first presentation continued with '*Mimosa Jamaicensis*' and '*Abutilon Carolinianum*' grown from seed sent by Mark Catesby. For the time being the collection was entrusted to Rand before being stored in the repository of the Royal Society, passing to the British Museum in 1781. These specimens, accompanied by the catalogue, provide a unique record of the plants grown at Chelsea during the height of the Garden's fame.

As pointed out above, Rand's collection for 1724 was exclusively from the genera in the family Geraniaceae and eight specimens are first records of their cultivation in Britain. He later presented *Podophyllum peltatum* L. (used in the manufacture of an anticancer drug in the twentieth century) and *Ammi majus* L. (used in the treatment of psoriasis).[48] The specimens represented part of the annual rent due to Sloane from the Apothecaries and the items were individually viewed by Fellows at meetings of the Royal Society while Rand's catalogue was read aloud. The catalogue was later published in the *Philosophical Transactions* where, from 1733, the author is titled 'Apothecary FRS, Hort. Chel. Praef. ac Praelec. Botan.' Rand produced his last quota of specimens (numbers 851–900 for 1739) in March 1741, thereafter Joseph Miller took responsibility, although he did not officially succeed to Rand's post until 1743. Publication of the lists ceased after 1774 and specimens continued to be received until 1796.[49]

Sloane's conveyance gave an impetus to the collection of rare plants at the Chelsea Garden and it had a stimulating effect on the Society of Apothecaries, which responded

energetically by dismissing the gardener and appointing a new one, by drawing up regulations for the management of and behaviour in the Garden, and regular financial provision was made for maintaining and improving it. Rand was requested to prepare a draft scheme of the Garden, and eight hundred plant pots, a grindstone, fresh bark and a new water tub were ordered. It was agreed to build a new stove, to raise and underpin the east wall, and to build a new gate and wharf beside the Thames.[50]

Rand was desired to 'hasten the catalogue of plants as soon as conveniently may do' in February 1725, when the garden committee reported that three large stoves had been built for the more curious and exotic plants. The foreign and domestic plants had been much augmented, the garden benefited generally from clearance and better cultivation and the accounts showed an exceptional profit of £45. With all this activity, the Garden required 'more constant and frequent inspection and direction', therefore a 'Proper Person' was formally appointed to be its director or manager. He was to be at the Garden at least twice a month between April and September to demonstrate the plants and see that the Garden regulations were upheld. Without hesitation the garden committee recommended Rand, 'who is not only Eminently Capable of such a station but has now for several years been a very Zealous Promoter of Botany and of the Company's honour with respect thereto'. Accordingly, the Court passed an unprecedented resolution: in recognition of Rand's past service and to encourage him further, he was admitted to the Court of Assistants without a fine, exempt from all future offices during his Directorship and given a salary of £50 per annum.[51]

THE PRAEFECTUS AND THE HORTULANUS

The revival of the Physic Garden from 1722 relied largely on the consistent exertions of Rand as *Horti Praefectus* and *Praelector Botanicus*. Credit must also be given to the gardener, Philip Miller, best known for his *Gardener's and Florist's Dictionary* (London, 1724), which had eight editions in his lifetime. Miller has been widely acclaimed as the Chelsea gardener under whom the Physic Garden reached pre-eminence. However, it should be recognized that the Rules and Orders for the Garden, drawn up shortly after Miller's appointment in 1722, make it clear that he was 'to take care of the culture and keep accounts of ye garden under the inspection and direction of the Superintendent and subject to the orders of the committee'.[52] The Superintendent or Director was of course Rand, Miller's senior by seventeen years, the leading figure on the garden committee and soon to be a member of the Apothecaries' Court of Assistants. Officially, it was Rand's responsibility as Director to receive and answer all correspondence, to prepare the specimens for the Royal Society and it was Rand, rather than Miller, who was instructed to compile a catalogue of the Chelsea plants. When Rand presented the manuscript in March 1730, he was thanked by the Court, which agreed to pay for one thousand copies to be printed. Rand's *Index Plantarum Officinalium quas, ad Materiae Medicae scientiam promovendam, in Horto Chelseiano, ali ac Demonstrari curavit, Societas Pharmaceutica Londinensis* was intended for the instruction of apothecaries' apprentices: it was a working pocketbook of ninety-six pages listing 518 plants and trees of the *materia medica*, specifying which part was used in physic. In November of the same year, Miller presented his *Catalogus Plantarum Officinalium quae in Horto Botanico Chelseyano aluntur* to the Royal Society.[53] Like Rand's *Index*, this was dedicated to the Master and Wardens of the Society of Apothecaries; it featured an attractive frontispiece of the gate to the Physic Garden but it was designed for the library

rather than as a teaching aid. The garden committee was not entirely satisfied and Rand was requested to order Miller to prepare 'a running catalogue' and to ask him to fix numbers to the plants for easy identification. Many years later as part of a litany of complaints, Miller stated that he at first declined to make this 'running catalogue' considering it was not his duty but changed his mind when offered payment. He then laboured over it for fourteen hours a day for six months and resented that his work was handed to Rand who later printed it[54] (presumably incorporated in his *Index* of 1739).

Miller's influence, perpetuated by many editions of *The Gardener's Dictionary* and *The Gardener's Kalendar* (London, 1731), was wide and lasting. As early as 1724, Miller rejoiced that 'the Practice and Esteem of Gardening is within these thirty years arrived at so considerable a pitch'[55] — a pitch that heightened as his personal reputation spread and the prestige of the Chelsea Garden rose. However, Miller tended to ignore the Apothecaries' regulations that the Director should deal with correspondence, nor did he heed the rule that the permission of the Director or a committee member was required before plants, roots or flowers could be taken from the Physic Garden. He seems to have had little respect for his employers or his Director: in replying to Richardson's request for plants, he sent them with the comment that Rand had 'settled the names of all the sorts in our Garden according to his own fancy'.[56] After Rand's death in 1743, the Apothecaries' supervision of their gardener relaxed and Miller became more wilful; his persistent refusal to cooperate with the Society eventually forced his resignation at the age of seventy-nine in 1770. Undoubtedly Miller was quarrelsome — he was reported to be engaged in a 'botanic war' with Dillenius in 1731, he crossed swords with Fellows of the Royal Society, with his publisher and with the artist Georg Dionysius Ehret.[57] The naturalist John Ellis recounted to Linnaeus how Miller had been 'turned out' of the Garden, 'through his obstinacy and impertinence to the Society of Apothecaries. His vanity was so raised by his voluminous publications that he considered no man knew anything but himself'. Ellis attributed the recent decline in the reputation of the Physic Garden to Miller's behaviour, and hoped that the appointment of William Forsyth (as in *Forsythia*) as his successor would revive its credit.[58] Meanwhile, for as long as Rand held the reins, Miller was constrained and, as its benefactor was gratified to note in the summer of 1730, the Physic Garden 'flourishes extremely'.[59]

Worthy, honest and diligent were the adjectives applied to Rand; he was conscientious and an authority on the identification and naming of plants, as Joseph Clutton, an apothecary of Holborn, noted. Clutton relied on 'our worthy friend Rand, Apothecary and our chief Professor' for help in naming exotic plants. 'The Botannick art is greatly increasing at London', he wrote in 1726,

> and Dr Sloane's gift of the Physick Garden to our Company forever has caused them to appoint one of the Company, at present Rand, to demonstrate the officinales every last Wednesday (so call'd) in the month, at the said place; and one Meers, our late Clerk, deceased, has left £100 for ever to such a Demonstrator. As a further encouragement the Company have ordered some buildings to be erected for the said service.[60]

The buildings referred to were the Orangery and greenhouses on the north side of the Garden for which Sloane laid the foundation stone on 12 August 1732. Sloane persuaded the Royal College of Physicians and the Royal Society to contribute to the building fund and the new structure was erected to designs by Edward Oakley. The arcaded Orangery or conservatory, with a library, committee room and accommodation

Figure 4. Terracotta bust of Sir Hans Sloane made by John Michael Rysbrack as a model for the statue commissioned by the Society of Apothecaries for the Physic Garden in 1734. Reproduced by permission of The British Museum.

for the gardener and Director above, was flanked by heated greenhouses. Rand was given the use of four rooms at the east end of the building in 1735; Miller was by then living in Swan Walk and the garden committee minutes suggest he needed to be brought to heel — for not keeping the committee room tidy and for not attending the committee whenever it met at Chelsea.[61]

In honour of their benefactor, the Society of Apothecaries commissioned a statue of Sir Hans Sloane from John Michael Rysbrack in 1734 (Figure 4). This was intended to fill a commanding position in a niche on the front of the new building. However, the weight of the sculpture forbade this and it was placed on a pedestal inside the Orangery until structural problems forced the statue's removal to the centre of the Garden in 1748, where it deteriorated. It has since been rescued and placed in the safety of the British Museum, while a replica of the original has been placed in the Physic Garden.

A library was established in the new building at the Physic Garden, to which authors, apothecaries and Fellows of the Royal Society donated books: Miller gave his *Dictionary* and many other books, Samuel Dale, an apothecary of Braintree, Essex, presented items from his own library, and Rand donated Caspar Bauhin's *Tabernaemontanus* (1613) and Ray's *Methodus Plantarum Emendata et Aucto* (1703). A major bequest was received in 1739 after the death of Dale when his library and *hortus siccus* (including the collection formerly belonging to Ray) were left to the Society

of Apothecaries. Rand (referred to in glowing terms in the third edition of Dale's *Pharmacologia*) and Sloane (Dale's executor) agreed that Dale's herbarium should be preserved in specially made presses at the Physic Garden.[62] Rand was himself putting together an extensive *hortus siccus*, later placed alongside those of Ray and Dale at the Physic Garden. These three collections were transferred to the General Herbarium of the British Museum in 1862 and the herbaria of Miller and Sloane (including Petiver's collection and specimens from Rand) found the same home. All are now housed with the British Museum's Department of Botany at the Natural History Museum, South Kensington.

Rand's reputation reached a peak in the 1730s. As Director and Demonstrator at Chelsea he brought out two catalogues of the plants there: the second was entitled *Horti Medici Chelseiani Index Compendiarius exhibens nomina plantarum, quas ad rei herbariae praecipue Materiae Medicae scientiam promovendam ali curavit Societas Pharmacopoeorum Londinensium* (London, 1739) and it listed numerous species under 794 genera. In addition to working on the Indexes of 1730 and 1739, cataloguing and preparing fifty specimens annually for the Royal Society, practising as an apothecary from his shop in the Haymarket, attending the herbarizings and instructing at Chelsea during the summer, Rand served on the Apothecaries' committees and helped audit the accounts.

BOTANICAL ARTISTS AT THE CHELSEA GARDEN

Rand encouraged the wider appreciation of the rare and beautiful plants grown at Chelsea by encouraging botanical artists. He appreciated the plates by Van Huysum in the first part of Martyn's *Historia Plantarum Rariorum* (London, 1728), 'exactly designed after life and with great Accuracy and Success', and he subscribed generously towards Mark Catesby's illustrated *Natural History of Carolina, Florida and the Bahama Islands* (London, 1731).[63] The appeal of accurate botanical illustrations led Rand to encourage Mrs Elizabeth Blackwell to take lodgings near the Chelsea Garden so that she could make drawings 'taken from life' of plants for her *Curious Herbal*, illustrating and describing 'the most Useful Plants now Used in the Practice of Physick' (1737–39). Blackwell's hand-painted drawings were accompanied by text written by her husband, recommending, for example, the pomegranate fruit to strengthen the stomach, while the flowers were an astringent for haemorrhages (Figure 5). Rand is named in the book's dedication as one of nine who gave 'publick recommendation' to the work, endorsing it with their 'satisfaction and good opinion', and in the edition of 1751 the author explained that Dr Alexander Stuart had showed her drawings at an Apothecaries' herbarizing and had introduced her to Rand 'without whose Assistance this work would have been very imperfect'.

The German artist Georg Dionysius Ehret came to London in 1735 and the Chelsea Physic Garden became his chief source of plants, inspiring some of the most perfect examples of his art. Ehret's arrival in London coincided with a recommendation from the Royal Society that paintings be made of new plants in the Chelsea Physic Garden. Miller was requested to take this in hand and he procured paintings from Ehret of three species of *Aloe*, which were 'much approved' by the Council of the Royal Society in 1735 (under the presidency of Sloane and with Rand, Collinson and Stuart present). Thus encouraged, Ehret completed another twenty-one paintings of species of *Aloe africana* Miller at Chelsea for the Royal Society, which with others by Jacob Van Huysum, form

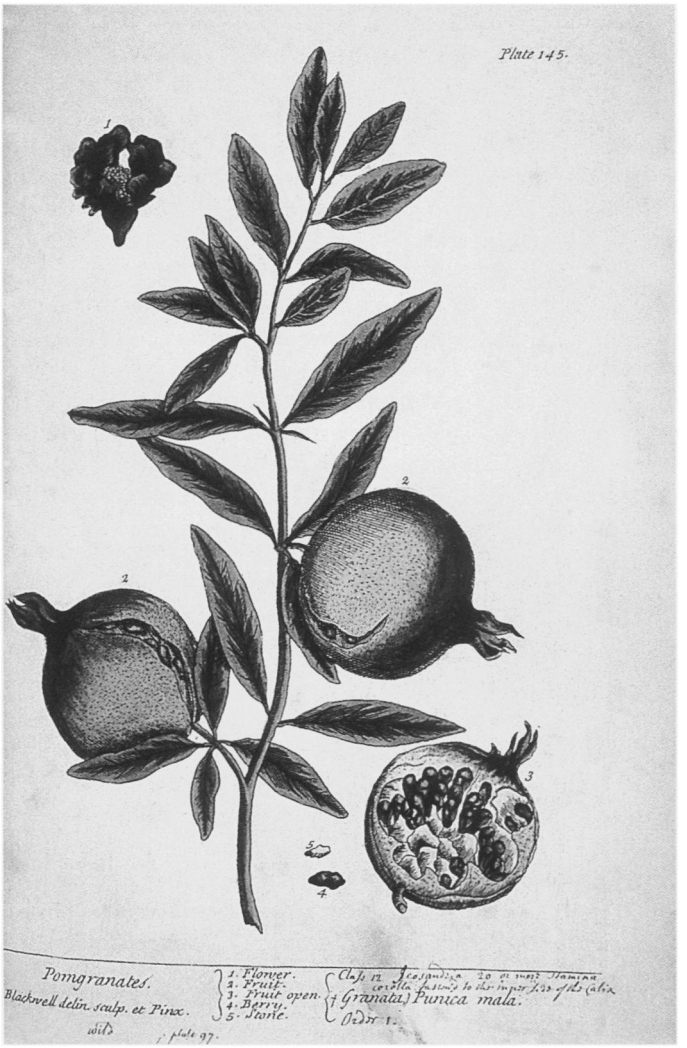

Figure 5. Pomegranate (*Punica granatum* L.), drawn at the Chelsea Physic Garden by Mrs Elizabeth Blackwell for her *Curious Herbal* (1737–39). Reproduced by permission of The British Library, 452.f.l.

an album of thirty-six paintings executed by two of the most gifted botanical artists of the eighteenth century. All the Ehret/Van Huysum paintings of aloes in this album were catalogued in Rand's *Index Compendiarius*, which lists thirty-nine species growing at Chelsea in 1739.[64]

Ehret married Philip Miller's sister-in-law and gave his address as simply Mr Ehret, painter at the Physick Garden, Chelsea, near London.[65] He drew the '*Hura Americana Abutili Indici folio*' (known as the sand box tree or Jamaican walnut, grown from seed received from Houstoun) that flowered at the Garden in November 1738, and the pineapple indexed by Rand as '*Ananas folio vix serrato*' (1739), the seeds of which had come from the Netherlands. Chelsea became famous for its pineapples and melons and a particular triumph was 'the fruit of the *musa* commonly called the plantain or the Banana' — the first to be produced in England.[66] Ehret also provided sixteen plates for Miller's *Figures of the most Beautiful, Useful and Uncommon Plants* (London, 1755–60)

Figure 6. *Randia aculeata* L. illustrated by Georg Dionysius Ehret in Dr Patrick Browne's *Civil and Natural History of Jamaica* (1756). Reproduced by permission of The British Library, 459.c.4.

and was persuaded to illustrate Dr Patrick Browne's *Civil and Natural History of Jamaica* (London, 1756), for which he drew details of the characters of plants for the first time, including an example of *Randia aculeata* L. (Figure 6).

The work of Van Huysum, Ehret and Blackwell at the Chelsea Garden set a precedent and other artists were to follow their example, taking advantage of the rare and beautiful plants that could be drawn in peak condition. Plants from the Garden also inspired the decorative porcelain produced at the local manufactory in the mid-eighteenth century.

GARDENIA RANDIA

The ultimate botanic recognition came to Rand when Houstoun named the shrub *Randia* after him. Houstoun supplied Chelsea with several species from Jamaica and Mexico and while in Vera Cruz in 1731 he found the shrub he named *Randia* in

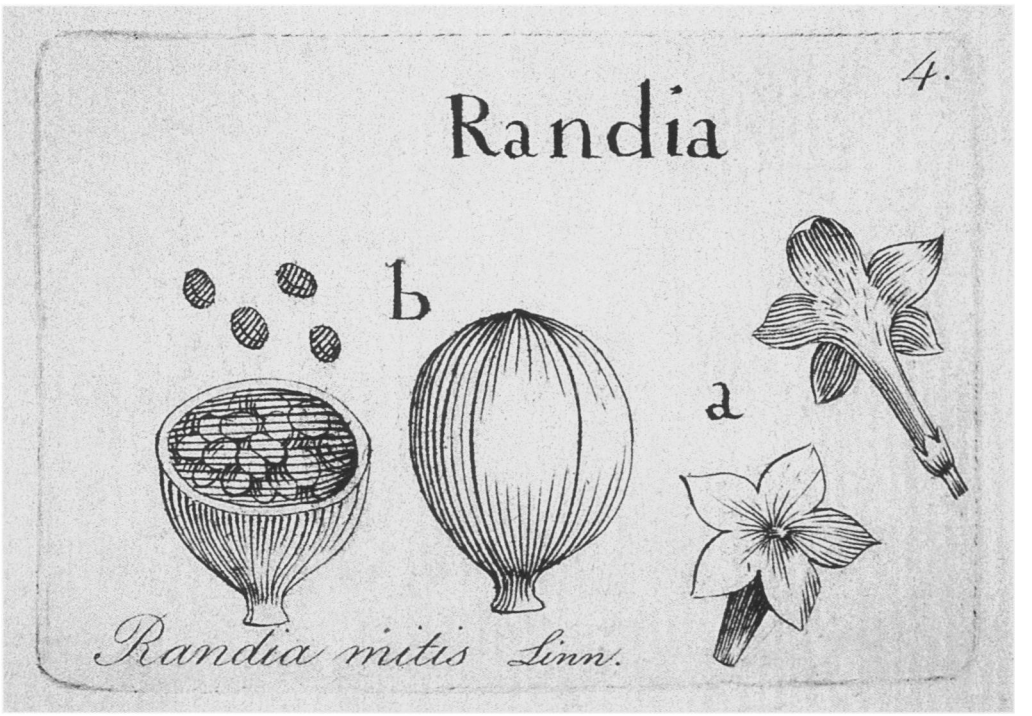

Figure 7. *Randia mitis* L. drawn by Dr William Houstoun who named the West Indian shrub after Isaac Rand; from Sir Joseph Banks, *Reliquae Houstounianae* (1781). Reproduced by permission of The British Library, 443.e.5.

recognition of 'a curious Botanist'.[67] A plant was growing at Chelsea by 1739 when it was catalogued by Rand himself as '*Randia* D. Houston'. The shrub, characterized by prickles and small white flowers, had first been observed by Sloane while in Barbados and it is described as '*Lycium forte*' in his *Catalogus Plantarum Qua in Insula Jamaica* (London, 1696)[68] and in *A Voyage to the Islands of Madera, Barbados, Nieves, S. Christophers and Jamaica* (London, 1707–25). *Randia aculeata* (the Indigo berry, which yielded a vivid blue dye) was first drawn by Ehret from a plant in the Oxford Botanic Garden (1756) and '*Randia mitis*' was drawn by Houstoun and published in Sir Joseph Banks's *Reliquiae Houstounianae* (London, 1781). Linnaeus retained the name *Randia* for the genus, although Rees's *Cyclopaedia* (London, 1819) lamented the fact that *Randia* 'is now sunk in Gardenia'[69] (it appears in William Curtis's *Botanical Magazine* as *Gardenia Randia*) (Figures 7 and 8).

Rand slipped into retirement at the age of sixty-six in 1740. In that year he left the Haymarket, moving to a property on the north side of Piccadilly, then known as 'the Round Rundles and the Dog Yard and the passage leading to Ayr Street' (Air Street survives). Rand's former shop in the Haymarket was redeveloped and by 1751 appears to have been replaced by Fribourg & Treyer, tobacconists and cigar manufacturers at No. 34. At Chelsea, some of Rand's responsibilities were handed to Joseph Miller, but Rand remained active on the garden committee, negotiating with the architect James Gibbs and the surveyor George Dance for a new building (unexecuted) at the Physic Garden in 1741. After the death of Rand and Miller's brief appointment (1743–46), the

Figure 8. *Gardenia randia* Sw. illustrated in William Curtis's *Botanical Magazine* (May 1816). Reproduced by permission of The British Library, 678.c.22.

position of *Horti Praefectus* lapsed and it was not until after the demise of Philip Miller that the Apothecaries reasserted their directorship of the Garden with the appointment of Stanesby Alchorne (1771–72), followed by William Curtis (1773–77) founder of the *Botanical Magazine*, the inveterate herbarizer Thomas Wheeler FLS (1778–1821) and, finally, Professor John Lindley FRS FLS (1836–53), who was the last to hold the office of *Horti Praefectus et Praelector Botanicus Chelseiani*.

Rand died on 5 May 1743 and was buried at St Martin-in-the-Fields, Trafalgar Square. His widow Ann (*née* Maw) whom he had married in 1705 was his sole executor and early in 1744 she presented her late husband's books and dried specimens to be kept in cabinets at the Chelsea Physic Garden. Mrs Rand died in 1758 with no surviving children. Her will left Isaac Rand's portrait to the Society of Apothecaries and, in accordance with her wishes, it hangs in the Great Hall of Apothecaries' Hall. She also bequeathed £100 to be invested by the Society: two-thirds of the income was to go to the

Director of the Physic Garden with instructions to replace decayed specimens in the Rand collection with twenty new ones annually, and one-third was for the Master and Wardens for their trouble. The heir to Rand's property in Westminster was his nephew, Revd Henry Rand, of Bersted, Kent.[70]

ACKNOWLEDGEMENTS

I thank the Society of Apothecaries for permission to quote from the Society's archives.

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[20] Royal Society of London, *Journal Book*, XI (1714–20), 21 May, 5 November 1719; XIII (1726–31), 30 November 1727, 5 December 1728, 26 June 1729; XIV (1731–35), 27 March 1735; XV (1736–39), 15 January 1736. Council Minutes II (1682–1727), 26 October 1719. Royal Society, Bulloch's Roll.

[21] John Nichols, *Illustrations of the Literary History of the Eighteenth Century* (London: Nichols Son & Bentley, 1817), I, 364, 374, W. Sherard to Richardson, letters of 10 May 1720, 28 March 1721.

[22] Ibid., 381, 404, J. Sherard to Richardson, letters 24 July 1722, 4 August 1716.

[23] H. Trimen and W. T. Dyer, *Flora of Middlesex* (London: Robert Hardwicke, 1869), 155, 210, 228, 235, 238, 311, 388–9; G. C. Druce, *The Flora of Berkshire* (Oxford: Clarendon, 1897), cxxxvi; idem, *The Flora of Buckinghamshire* (Arbroath: T. Buncle & Co., 1926), lxxv; William A. Clarke, *First Records of British Flowering Plants* (London: West Newman, 1900), 66, 119, 123, 170.

[24] Nichols, *Illustrations of the Literary History of the Eighteenth Century*, 391; W. Sherard to Richardson, letter 26 December 1723.

[25] Nationaal Herbarium Nederland Library, H. Boerhaave, *Index Seminum Satorum* (1712–27); J. Heniger, 'Some botanical activities of Herman Boerhaave, Professor of Botany and Director of the Botanic Garden at Leiden', *Janus*, LVIII (1971), 1–78.

[26] G. A. Lindeboom (ed.), *Boerhaave's Correspondence* (Leiden: Brill, 1962), I, 69, Boerhaave to Sherard, letter 17 April 1718.

[27] Ibid., 71, 78, 81, 83, 85, 87, 99, 106, 137–9, 141, 145–6, 150, 159; G. A. Lindeboom, *Boerhaave and Great Britain* (Leiden: Brill, 1974), 36; E. Kegel–Brinkgreve and A. M. Luyendijk-Elshout (trans.), *Boerhaave's Orations* (Leiden: Brill, 1983), 228.

[28] Le Rougetel, *Chelsea Gardener*, 118.

[29] GL, MS 8200, VIII, 20 August 1767; Miller's expenses 9 October 1728, GL, MS 8287 f.13.

[30] A. L. A. Feé, *Vie de Linné* (Lille: Bronner-Bauwens, 1832), 249.

[31] Le Rougetel, *The Chelsea Gardener*; G. Sherburn (ed.), *The Correspondence of Alexander Pope* (Oxford, Clarendon, 1956), III, 451–2.

[32] Nichols, *Illustrations of the Literary History of the Eighteenth Century*, 338–9; Rand to Brewer, letters 18 September 1718, 11 July 1730.

[33] Dawson Turner (ed.), *Extracts from the Literary and Scientific Correspondence of Richard Richardson of Bierly, Yorkshire, illustrative of the state of botany* (Yarmouth: Sloman, 1835), 73, Vernon to Richardson, letter 12 February 1703.

[34] BL, Sloane MSS 4037 f.302; 4063 ff.15, 156; 4066 f.281.

[35] Turner, *Extracts from the Literary and Scientific Correspondence of Richard Richardson*, 104, Buddle to Richardson, letter 28 May 1709.

[36] BL, Sloane MSS 2970–80; Trimen and Dyer, *Flora of Middlesex*, 386–8.

[37] Turner, *Extracts from the Literary and Scientific Correspondence of Richard Richardson*, 351, Blackstone to Richardson, letter 11 December 1736.

[38] BL, Sloane MS 4046 f.167.

[39] Ibid., 4047 ff.126, 128.

[40] Nichols, *Illustrations of the Literary History of the Eighteenth Century*, 385, W. Sherard to Richardson, letter 23 February 1723.

[41] G. C. Gorham, *Memoirs of John Marytn FRS and of Thomas Martyn BD FRS FLS* (London: Hatchard & Sons, 1830), 13–15.

[42] Proceedings of the Botanical Society of London 1724–26, Natural History Museum Library; D. E. Allen, 'John Martyn's Botanical Society: a biographical analysis of the membership', repr. from *Proceedings of the Botanical Society of the British Isles* (May 1967).

[43] GL, MS 8200, IV, 7 July 1714, 26 June 1718. The deed of February 1722 is at the Chelsea Physic Garden, Royal Hospital Road, London.

[44] Joseph Miller, *Botanicum Officinale* (London, 1722).

[45] BL, Sloane MS 3322 f.96.

[46] Ibid., 4060 ff.150, 152.

[47] Royal Society of London, *Journal Book*, XII (1720–26), 21 March 1723.

[48] Minter, *The Apothecaries' Garden*, 16–17.

[49] In addition to Rand's printed lists in *Philosophical Transactions*, XXXII–XLI (1723–40), some manuscript lists survive for 1726 and 1737–39: BL, Add. MSS 4432 f.68, 4434 f.186, 4435 f.44, 4436 f.25; William T. Stearn, 'Philip Miller and the plants from the Chelsea Physic Garden presented to the Royal Society of London 1723–96', *Transactions of the Botanical Society of Edinburgh*, XLI (1972), 293–307.

[50] GL, MS 8200, V, 1722–23.

[51] Ibid., 25 February 1725.

[52] GL, MS 8228, I, Rules and Orders, 21 August 1722, AH.

[53] Blanche Henrey, *British Botanical and Horticultural Literature before 1800* (London: Oxford University Press, 1975), II, 210, suggests that Miller's Catalogue predated Rand's Index (1730). Rand's manuscript was ready in March 1730 and was printed by July. I have found no precise date for Miller's work of the same year.

[54] GL, MS 8200, VIII, 20 August 1767.

[55] Philip Miller, *The Gardener's and Florist's Dictionary* (London, 1724), I, x.

[56] Nichols, *Illustrations of the Literary History of the Eighteenth Century*, 321–3, Miller to Richardson, letter 19 August 1727. GL, MS 8200, VIII, 20 August 1767.

[57] Le Rougetel, *Chelsea Gardener*, 46.

[58] Sir James Edward Smith (ed.), *A Selection of the Correspondence of Linnaeus* (London: Longman, Hurst, Rees & Orme, 1821), I, 255, 583.

[59] Nichols, *Illustrations of the Literary History of the Eighteenth Century*, 285, Sloane to Richardson, letter 17 July 1730.

[60] Ibid., 250–1, Clutton to Richardson, letter 13 April 1726. In fact, Meres's legacy amounted to £200.

[61] GL, MS 8228, 1, 2 August, 19 November 1735, AH.

[62] Ibid., 19 May 1739.

[63] Royal Society, *Philosophical Transactions*, XXXVI (1729–30), 4–6.

[64] Royal Society MS 668 (formerly MS 581), Ehret Drawings. This album contains thirty-six paintings by Ehret and Van Huysum of Chelsea plants and a *Pulmonaria* from Collinson's garden; Royal Society of London, *Journal Book*, XIV (1731–35), 30 January, 2 February 1735.

[65] Gerta Calmann, *Ehret. Flower Painter Extraordinary: An Illustrated Biography* (Oxford: Phaidon, 1977), 61.

[66] Royal Society of London, *Journal Book*, XV (1736–39), 11 January 1739.

[67] Philip Miller, *The Gardener's and Florist's Dictionary* (London, 1768).

[68] Rand's copy of this work, signed and annotated, is in the Wellcome Institute for the History of Medicine Library, London.

[69] Abraham Rees, *The Cyclopaedia*, XV, XXIX (London: Longman, Hurst, Rees, Orme, Brown, 1819).

[70] Public Record Office (PRO), B11/837 Q128; PRO, B11/726 Q175.