

persons' who contributed to his cabinet and exhorts others who 'Travel to or Reside in Foreign Parts' to follow their example. John Ray considered Petiver 'one of the most skilful and active promoters of natural history, I will not say in England but in all Europe',⁴⁸ although he seems to have made a less favourable impression on Dutch collectors (including Albert Seba and Frederik Ruysch) whom he met while on a buying trip to the Netherlands in 1711.⁴⁹ Unfortunately, it seems that he did not take equal care in keeping his specimens, but 'put them into heaps, with sometimes small labels of paper, where there were many of them injured by dust, insects, rain &c'. Von Uffenbach tells us that 'Everything he had was kept in true English fashion in prodigious confusion in one wretched cabinet and in boxes.'⁵⁰

In time Petiver's collection was united under one roof with what may be regarded as one of the greatest of all seventeenth-century British cabinets, that belonging to William Charleton or Courten (1642-1702) and kept originally in ten rooms at the Temple in London. Although Charleton's collection lies chronologically at the end of the time span reviewed here, it preserved almost perfectly the character of the best English collections of the seventeenth century. It was built up over twenty-five years of Continental travel up to 1684. Visiting it some three years later, John Ray found it 'a repository of rare and select objects of natural history and art, so curiously and elegantly arranged that you could hardly find the like in all Europe'.⁵¹ Thoresby concurred when he described it as 'perhaps the most noble collection of natural and artificial curiosities, of ancient and modern coins and medals, that any private person in the world enjoys . . . there is I think, the greatest variety of insects and animals, corals, shells, petrifications etc that ever I beheld'.⁵² In his *Numismata*, John Evelyn declared that some collectors had so distinguished themselves by their collecting activities that they personally deserved to have medals struck in their honour: Aldrovandi, Imperati, Settala, Cospi and Worm are singled out for special mention, so is John Tradescant, but above them all Evelyn (who was, it should be remembered, familiar with some of the best Continental cabinets) places 'the worthy Mr Charleton'.⁵³

It has been mentioned that the collections of Petiver and Charleton were eventually joined together and they were so in the museum of Sir Hans Sloane (1660-1753), Charleton's cabinet being left to Sloane in a bequest and Petiver's being bought by him for £4,000.⁵⁴ Mention of Sir Hans Sloane, however, takes us beyond the end of the seventeenth century and beyond the point where the term 'cabinet of curiosities' has any useful meaning. There were over 100,000 specimens in this collection which came to form the foundation of the British Museum, in addition to those which had originated with Charleton and Petiver. A large number of these, notably 12,500 botanical specimens, were the result of Sloane's own collecting activities in the West Indies (which he visited in his capacity as physician to the Duke of Albemarle, Governor of Jamaica) and elsewhere.

⁴⁸ Petiver made many contributions to vol. 3 of Ray's *Historia* and the results of his researches are also incorporated in the appendix to his *Synopsis* of 1696 (Edwards 1981, p. 301). Whitehead (1971, p. 52) notes that Ray himself would undoubtedly have possessed a much greater collection had he not been crippled by poverty.

⁴⁹ Stearns 1952, pp. 282-5.

⁵⁰ Uffenbach 1753-4, vol. 2, p. 583; Quarrell and Mare 1934, pp. 126-7.

⁵¹ Raven 1950, p. 229.

⁵² Hunter 1830, pt. 1, p. 299.

⁵³ Evelyn 1697, p. 282.

⁵⁴ Altick 1978, p. 15; Brooks 1954, pp. 179-81; Whitehead 1971, p. 53.

exotic items at least enabled naturalists to examine species which they would not otherwise have had an opportunity to see. It is clear that visitors too were mainly intrigued by unusual items of the kind which dominated the repository.⁴⁶ But what is significant is that – with the exception of the brief episode involving Willisel – the ideals of comprehensive accumulation advocated by authors like Sprat were never implemented, but succumbed to circumstances like other aspects of the Society's initial Baconian programme. Moreover, the haphazard nature of the collection and its stress on the exotic limited its value to the taxonomic effort of the day, as Grew noted at one point in his catalogue, regretting that a 'perfect' classification was not there feasible 'because as yet the Collection it self is not perfect'.⁴⁷

So the repository was less different from virtuoso cabinets than had initially been intended. Equally revealing are the difficulties that the Society encountered in administering the collection: these are symptomatic of the Royal Society's institutional weakness, its lack of large-scale endowment and its vulnerability to fluctuations in the support of the virtuosi who made up the bulk of the membership.⁴⁸ Even the 'foundation' of the museum in 1666 can be seen in this context, since it is clear from remarks in the correspondence of leading figures in the Society that this was a deliberate gesture intended to reinvigorate activities after the dislocation caused by the Great Plague in 1665.⁴⁹

Problems recurred almost immediately. In its earliest years the Royal Society held its meetings in the spacious milieu of Gresham College in the City of London and plans were afoot to display the rarities there when the Fire of London necessitated the Society's removal in 1667 to temporary quarters provided by the Howard family at Arundel House in the Strand.⁵⁰ Here there was evidently no space for the museum, which was left 'as in a storeroom', and only after the Society returned to Gresham College in 1673 was it possible to display the collection properly in one of the College's large galleries.⁵¹

Moreover, throughout its history the repository was dogged by the fact that, with limited resources at its disposal, the Royal Society could never afford sufficient staff to look after the collection properly. In the Society's early years the responsibility for it was given to Robert Hooke, despite the fact that he was expected to run the business of the weekly meetings virtually singlehandedly, in addition to his commitments outside the Society.⁵² Things looked up while Grew was preparing his catalogue, but thereafter responsibility for the museum seems to have been left mainly to the Society's 'operators', who also had plenty of other functions to perform.⁵³ The result was a history of negligence. In the 1660s it was hoped that a register of benefactors should be kept, but the fact that in the early eighteenth century more than one attempt was made to compile such a list

⁴⁶ See Charleton 1668, pp. 84, 112, 113, 114, 115, 116, 186; Ray to Lister, 19 December 1674, in Lankester 1848, p. 112; Willughby 1686, sig. b1v, pp. 148, 154, 212, 216, appendix pp. 19–24, and pls. G9, I2, 7, 10, 20, 22–4, N13, O3–4, XII. For visitors, see, e.g., Quarrell and Mare 1934, pp. 99–101.

⁴⁷ Grew 1681, p. 124.

⁴⁸ See Hunter 1982a.

⁴⁹ Evelyn to Mrs G. Evelyn, 29 January 1666, in Sharp 1977, p. 256, n. 4; Hooke to Boyle, 3 February 1666, in Birch 1744, vol.

5, p. 545; Oldenburg to Boyle, 24 February 1666, in Hall and Hall 1965, vol. 3, p. 45.

⁵⁰ Birch 1756–7, vol. 2, pp. 96, 113–14.

⁵¹ Middleton 1980, p. 140; Birch 1756–7, vol. 2, p. 300; vol. 3, pp. 191, 242, 310–11; Royal Society Miscellaneous Manuscripts, vol. 16, fol. 39.

⁵² On Hooke's appointment, see below, pp. 210–11; Hunter 1982b, pp. 458–9.

⁵³ Simpson 1984.

physicians (Paludanus, Worm, Lister), apothecaries (Petiver, Seba), noblemen (Cospi, Imperato, Friedrich of Gottorp, Cosimo de' Medici). The relation between shell collecting and those people seems logical: scholar – teaching; physician – anatomy; apothecary – medicine; nobleman – money. We are perhaps inclined to suppose that the show collections of the nobility have a lesser value for science, but these wealthy people also wanted their collections described by naturalists. For this reason a number of illustrated books or catalogues were published.³ In addition Worm⁴ and Tradescant⁵ described their own collections.

As well as the catalogues of the collectors, there were general textbooks on natural history in which molluscs were also discussed.⁶ In these works fact and fancy were often mixed.

Not only collectors and scientists were interested in shells. Their beauty was also discovered by artists: in still-lives, flower arrangements were often surrounded by shells, and silversmiths used the polished shell of the nautilus to create the nautilus-cups.

Because the shells of snails are asymmetrical, these were often figured in reversed position in engravings; a well-known example is the engraving of the marbled cone shell by Rembrandt (1606–65).

The first books devoted entirely to shells were published at the end of the seventeenth century. An Italian Jesuit priest, P. Fillipo Buonanni (1638–1725) produced a picture book on shells.⁷ Because the author was not a scientist, the text is of rather low quality, but the shells are well illustrated (fig. 71).

The physician Martin Lister (1639–1712) published a book on British animals which included shells.⁸ Subsequently he published a *Historia Conchyliorum* which comprised about 1,000 plates of shells but almost no text.⁹ Many drawings (fig. 72) were prepared by Lister's two daughters, and the work is systematically arranged. Besides those from Lister's own collection, the shells figured were from the Ashmolean Museum and from the collection of William Charleton (or Courten). After this work was finished in 1692, a second edition was published, to be followed by a third edition in the succeeding century, prepared by William Huddesford, curator of the Ashmolean Museum. Apart from these systematic works, Lister also produced three publications on the anatomy of molluscs.

A third author of malacology is Georg Rumphius (1627–1702). Although born in Germany, he was employed by the Dutch East India Company on the island of Amboina from 1656, and his works were written in Dutch. Rumphius first published a book on the plants of Amboina, and later started one on the shells of the island. After he went blind in 1670, his son helped with the illustrations and the text. Another disaster for him was the great fire in Amboina in 1687, in which all the original plates were destroyed and had to be renewed. In 1699 the text and plates were sent to Holland, where the manuscript was prepared for publication by Simon Schijnvoet, who added some plates. The first Dutch

³ Olivi (1584) described the collection of Calceolari; Olearius (1666) Gottorp's *Kunstammer*; and Legati (1677) the museum of Cospi.

⁴ Worm 1655.

⁵ Tradescant 1656.

⁶ The French biologists Pierre Belon (1517–64) and Guillaume Rondelet (1507–66) both wrote on aquatic animals.

Conrad Gesner (1516–65) from Basel published an encyclopaedic work on zoology.

⁷ Buonanni 1681; many of the specimens were present in the collection of another Jesuit, Father A. Kircher.

⁸ Lister 1678.

⁹ Lister 1685–1692.