footprints of the lion

Newton died, covered with honours, in 1727 and was buried grandly in Westminster Abbey. He had become President of the Royal Society in 1703 and was knighted in 1705. As Master of the Mint from 1699, he was a wealthy and successful servant of the state. Yet, as Newton's heirs investigated the books and manuscripts that remained after his death, it became increasingly apparent that the outward face of genius was quite different from the private life of an alchemist and heretic who had, for much of his life, deliberately avoided publicity of any kind. Newton's books were sold and few of his papers were deemed worthy of publication. His heirs and their descendants guarded the rest of them closely. The transfer of the Portsmouth papers to Cambridge University in 1872 opened up the possibility of studying Newton's scientific development, as it was then conceived. In 1936, the 'personal' papers that had been returned to the family were sold at auction in order to meet death duties and other family expenses. The economist, John Maynard Keynes, bought many of them and subsequently formed the view that Newton was 'the last of the magicians'. The study of the traces that Newton had left in the pages of his manuscripts began in earnest after 1945. It continues today around the world. With the University Library's acquisition of the Macclesfield Collection, letters and papers that were preserved by friends and disciples of Newton have been reunited for the first time since their creation with others that were kept by his family.

64 ivory bust of sir isaac newton
23.8 × 15 cm

R.J.E. Hanson presented this copy of a bust of Newton by David Le Marchand to Cambridge University Library in 1936. The original was sculpted in 1718 and was one of several representations of Newton by Le Marchand.

65 cambridge university library, ms. add. 3960(2), p. 1
23.6 × 18.6 cm

William Jones (see catalogue numbers 10 and 36) wrote this account of Newton's invention of the calculus in the 1730s. It drew heavily on his knowledge of Newton's own version of events and on the papers in his possession. Nevertheless it also contained a number of errors, including the date given in its opening line. It was communicated to Thomas Birch (1705–66), who was compiling a huge biographical dictionary in which extensive reference was made to the works of each subject. The entry in Birch's *A General Dictionary, Historical and Critical* (1734–41) was the first published biography of Newton by a British author.

D.T. Whiteside (ed.), *The Mathematical Papers of Isaac Newton*, 8 vols (Cambridge, 1967–81), vol. 8, xx–xxiii; A. Rupert Hall, *Isaac Newton. Eighteenth-Century Perspectives* (Oxford, 1999), pp. 75–95.

Presented to Cambridge University Library by the fifth Earl of Portsmouth. See *A Catalogue of the Portsmouth Collection of Books and Papers written by or belonging to Sir Isaac Newton* (Cambridge, 1888), p. 2.

66 newton's death mask
(figure 40)
20 × 14 × 8 cm
King's College, Cambridge

John Michael Rysbrack (1694–1770) was probably the artist who prepared this plaster death mask of Newton. Rysbrack was also the sculptor of the monument to Newton in Westminster Abbey (see catalogue number 67). Several copies of Newton's death mask were circulating among artists in the eighteenth century and a number survive. This one was bought by John Maynard Keynes at the Sotheby sale of Newton's manuscripts in 1936.

Michael Jaffe, *The European Fame of Isaac Newton* (Cambridge, 1974), pp. 23–4.

Sotheby sale, 14 July 1936, lot 332, purchased by J.M. Keynes for £34.

figure 40
Newton's Death Mask by John Michael Rysbrack, King's College, Cambridge.

67 king's college, cambridge, ms. keynes 131/6
(figure 41)
22.4 × 17.7

After Newton's death, his body lay in state in Westminster Abbey on 28 March 1727 and was later buried in the nave. James West, who witnessed the proceedings, commented that 'People talk of a very magnificent Monument to be erected to him'. The sculptor Rysbrack prepared a sarcophagus that was unveiled in April 1731. It was based on

designs that were drawn up by Conduitt. This drawing has been attributed to Conduitt and is slightly different from the monument that Rysbrack executed. Unlike that work, it bears the couplet that Alexander Pope composed in memory of Newton: 'All Nature & its Laws lay hid in night:/ God said, Let Newton be & all was light'.

Francis Haskell, 'The Apotheosis of Newton in Art', in Robert Palter (ed.), *The Annus Mirabilis of Sir Isaac Newton 1666–1966* (Cambridge, Mass., 1970), pp. 302–21; Bodleian Library, Oxford, Ms. Rawlinson Letters 11, number 121. Exhibited at the Fitzwilliam Museum, November 1973-January 1974: Michael Jaffe, *The European Fame of Isaac Newton* (Cambridge, 1974), p. 27.

Sotheby sale, 14 July 1936, lot 214, bought by Dawson's for £3. 10s.; subsequently acquired by J.M. Keynes.

figure 41
A sketch for Newton's tomb, with proposed epitaphs by the poet, Alexander Pope, King's College, Cambridge, Keynes Ms. 131/6 .

68 *A Catalogue of the Portsmouth Collection of Books and Papers written by or belonging to Sir Isaac Newton*
(Cambridge, 1888)
17.2 × 10 cm
Cambridge University Library, shelfmark a.122.2.105

Thomas Pellet decided that almost all of the manuscripts that he assessed on behalf of Newton's heirs were 'not fit to be printed' (see catalogue number 63). Despite the financial disappointment that this implied, Conduitt and others were probably not surprised by this outcome. The bulk of Newton's unpublished papers consisted either of drafts for works that had already been published or of manuscripts whose content seemed likely to tarnish the reputation for genius that Newton had already acquired. In any case, neither the *Chronology* nor an edition of some of Newton's writings about Daniel and Revelation, *Observations upon the Prophecies* (1733) experienced startling success once they had appeared in print. Despite their incoherence, both of these books managed to generate a considerable amount of criticism, particularly from readers who began to suspect that Newton's arguments led to heretical conclusions from which they were being kept by sleight of hand. Moreover the terms of Conduitt's arrangement with Newton's other heirs gave him a greater interest in keeping any manuscripts out of the sight of possible pirates than in securing their publication himself.

In 1755, some chronological and theological manuscripts were nevertheless sent to Arthur Ashley Sykes, who sympathised with Newton's religious ideas, with a view to publication. Most of these in fact related to work that had already appeared in print in some form. They were not published, but when Sykes died a few years later they were also not returned to Newton's family. In the 1770s, when he was preparing an edition of Newton's *Opera Omnia*, Samuel Horsley had access briefly to the rest of Newton's manuscripts at Hurstbourne Park, the home of the Earls of Portsmouth into whose family Conduitt's daughter had married. Sir David Brewster published a few passages from these papers in the revised edition of his biography of Newton that appeared in 1855.

Concern that Newton's papers might not be safe at Hurstbourne Park seems to have encouraged the fifth Earl of Portsmouth, Isaac Newton Wallop, to seek the advice of Cambridge University. The University sent the astronomer, John Couch Adams, and the

mathematician and physicist, George Stokes, to examine Newton's archive. In August 1872, the Earl of Portsmouth offered to lend Newton's papers to Cambridge, so that they could 'be carefully investigated to see whether they relate to, or are rough drafts of his works.' He also decided that 'in the event of their proving to be the calculations from which [Newton] made his deductions in his works, I am willing then to make them over to the University.' A Syndicate was now established to assess Newton's manuscripts. Adams and Stokes were largely responsible for considering the mathematical and scientific papers. The University Registrary, H.R. Luard, who checked much of Newton's correspondence, and G.D. Liveing, who catalogued the alchemical manuscripts, assisted them in their work. After sixteen years, these four men succeeded in preparing a catalogue of the Portsmouth collection, including both the manuscripts that were now donated to the University Library and those that had to be returned to the family. The 'heirlooms' that the Earl of Portsmouth retained consisted of the majority of Newton's 'non-scientific' alchemical and theological papers together with many personal items, including much correspondence and Newton's papers from the Mint. One of the main activities of the Syndicate had been to supervise the transcription of many of those letters.

The published catalogue of the Portsmouth Collection leaves much to be desired. Its entries are very brief and often misleading and its editors did not always take very much trouble over their task. Nevertheless, in 1888, the University Library became by far the most important public collection of Newton manuscripts.

Rob Iliffe, 'A "Connected System"? The Snare of a Beautiful Hand and the Unity of Newton's Archive', in Michael Hunter (ed.), *Archives of the Scientific Revolution* (Woodbridge, 1998), pp. 137–57; D.T. Whiteside (ed.), *The Mathematical Papers of Isaac Newton*, 8 vols (Cambridge, 1967–81), vol. 1, xvii–xxxiii; Cambridge University Library, Mss. Add. 2588, ff. 6–11, 494–6; 7656, numbers A158, 167.

69 king's college, cambridge, ms. pp/59/9–10
(Sotheby & Co., *Catalogue of the Newton Papers sold by order of the Viscount Lymington* (London, 1936), pp. 4–5)
18.5 × 11 cm

Under the strain of death duties and of the expenses of a family divorce, Viscount Lymington, the Trustee of the Portsmouth Estates, decided to sell the Newton papers that remained in the family's possession. In

March 1936, they were delivered to Sotheby's in New Bond Street, where they were catalogued by John Cameron Taylor for auction on 13 and 14 July. The Sotheby sale was a major event for booksellers but attracted scarcely any interest from institutions. The causes of this are hard to fathom but may relate to the international situation, the sense that Cambridge already possessed all that mattered of Newton's papers, fatigue in a market that was already awash with books from Newton's library (see catalogue number 71), or even disquiet at Lord Lymington's right-wing political views. However, if libraries had hoped to pick up selected items with little trouble from future booksellers' catalogues, they were largely disappointed by the efforts of individuals. Lord Wakefield bought Newton's administrative papers from the New York dealer, Gabriel Wells, who had purchased the huge lot containing them at Sotheby's. He later donated them to the Mint. Much of the rest of the history of the manuscripts dispersed at the Sotheby sale can be expressed as a contest between two men, John Maynard Keynes (1893–1946) and Abraham Shalom Ezekiel Yahuda (1877–1951) (see catalogue number 70).

Keynes, who came from a prosperous Cambridge family, had made his name as an economist and gathered a fortune on the stock market. He had been collecting early printed books since he was an undergraduate. He had bought one or two items from Newton's library from the Guildford bookseller, Thomas Thorp, in the early 1920s and had acquired a copy of the first edition of the *Principia* as recently as 30 May 1936. On 15 July 1936, the day after the sale, he wrote that 'I have been up here for the last two days spending many hours in the auction rooms at the dispersal of the papers of Sir Isaac Newton… They went, as it seems to me, extraordinarily reasonably, and I think I have bought almost everything which ought to remain in Cambridge… Among other things I bought Sir Isaac's Death Mask, which is extraordinarily interesting' (see catalogue number 66).

Keynes' initial confidence in his purchases soon dissipated, however, as he decided that rather than simply cherry picking, he should make a serious collection of Newton's manuscripts, especially the alchemical papers in which he had shown no special interest at the sale. He therefore followed up the records of purchasers and prices that he had carefully made at the time of the sale. On 3 August he contacted the London bookseller Ernest Maggs, who had purchased more lots than anyone

else, informing him that he had decided 'to form a very substantial collection of these papers with the idea of keeping them permanently in Cambridge'. When he wrote to Gabriel Wells on 8 September, Keynes apologised: 'I am sorry to have been too late with some of the others, but it is my own fault. I only gradually came to the decision to make my collection comprehensive. It is also only gradually that I came to the view that the papers concerning alchemy were really interesting.'

Pages from Keynes' marked up copy of the sale catalogue bear his later comments out. They record his first purchases at the sale (from which he came away with thirty-nine lots in total). They also note the fate of many lots (for example lot 32, for which see catalogue number 52) that he did not buy then but acquired later from booksellers, usually at very modest rates for commission. Keynes ringed the numbers of the lots that subsequently entered his collection in this way. But there were other lots, for example numbers 22 and 28 that Keynes rejected entirely or in part when dealers offered them to him. The collection that he was building was not an indiscriminate one, and it was shaped at all times by his own changing vision of its purpose.

P. E. Spargo, 'Sotheby's, Keynes and Yahuda — the 1936 Sale of Newton's Manuscripts', in P.M. Harman and Alan E. Shapiro (eds), *The Investigation of Difficult Things* (Cambridge, 1992), pp. 115–34; David Scrase and Peter Croft, *Maynard Keynes. Collector of Pictures, Books and Manuscripts* (Cambridge, 1983); A.N.L. Munby, *Essays and Papers*,ed. Nicolas Barker (London, 1977), pp. 19–26; King's College, Cambridge, Mss. PP58–9.

70 king's college, cambridge, ms. pp/58/186
25.7 × 20.3 cm

By the time that Keynes was buying up Newton manuscripts from the booksellers, someone else had begun to take a close interest in the sale. This was A.S. Yahuda, an émigré Jewish scholar, who was a serious collector of oriental manuscripts. At the beginning of August 1936, Yahuda first approached the New York dealer, Gabriel Wells, who had spent more money than anyone else at Sotheby's in order to acquire twenty-three substantial lots. Yahuda was able to buy a number of mainly theological manuscripts from Wells and was soon treading on Keynes' toes. By September, the two men were in correspondence and embarked on an exchange both of manuscripts and of ideas. There is little doubt that Keynes regarded Yahuda's intrusion on his collecting as

a nuisance, but he nevertheless collaborated with him in order to improve the coherence of his own group of manuscripts. Yahuda, for his part, was astonishingly successful at building up a substantial collection of Newton's theological papers, despite having had no representative at the Sotheby sale. One area in which Keynes sought Yahuda's help quite genuinely was in the interpretation of the manuscripts that he had acquired. In the letter on display, from 3 April 1938, Keynes discussed the credentials of a potential cataloguer of his manuscripts whom Yahuda had recommended. In the process he revealed a great deal about the development of his own interest in his collection: 'What is it Newton really thought he was doing? Is it all the usual stuff and nonsense? Or is there some glimmering of the beginnings of genuine chemistry?'

This letter marked the start of Keynes' final falling out with Yahuda, whom he already suspected (with some justice) of purloining one of his alchemical manuscripts during a swap. Keynes was particularly concerned to identify Yahuda's intentions for his manuscripts. Yahuda had already hinted that others were involved in his collecting activities and it gradually dawned on Keynes that he might be part of 'a syndicate which hoped to sell [Newton's papers] at a high price'.

Keynes' judgement was both correct and unfair. Certainly Yahuda and his partners did try to sell their collection to a number of major American libraries following the tercentenary of Newton's birth in 1942. But Yahuda was also genuinely concerned about the material that he had collected and that remained in his hands until his death. He wrote to one correspondent: 'My opinion is that some rich Jew should be interested in the collection which is of great Biblical and religious interest for Protestants and Jews alike. All his treatises against the Catholic Church is still of actuality and they should be made public.' Despite a tone that was provoked by a real shortage of money, Yahuda was a serious student of the manuscripts that he bought and he did his best to analyse their content. After his death, they eventually found their way to the Jewish National and University Library in Jerusalem.

P. E. Spargo, 'Sotheby's, Keynes and Yahuda — the 1936 Sale of Newton's Manuscripts', in P.M. Harman and Alan E. Shapiro (eds), *The Investigation of Difficult Things* (Cambridge, 1992), pp. 115–34; King's College, Cambridge, Mss. PP58–9; Jewish National and University Library, Jerusalem, Mss. Yahuda 42 and 43.

71 *Library of Sir Isaac Newton. Presentation by the Pilgrim Trust to Trinity College, Cambridge, 30 October 1943*
(Cambridge, 1944)
Cambridge University Library, shelfmark Cam. d. 944.1.

After Newton's death, the books from his library had been listed and sold to John Huggins, Warden of the Fleet Prison, who seems to have bought them for his son Charles. They remained in the hands of his descendants and their heirs from the Musgrave family until 1920, when a significant portion was sold as part of the auction of Thame Park, Oxfordshire. Many of these books entered the trade and the London firm of Sotheran & Co. in particular acquired a large number of them. In 1928, Richard de Villamil announced that he had discovered the remainder of Newton's library among the books at Barnsley Park. In 1929, these books were also offered for sale by Sotheran & Co. They remained unsold, despite attempts to interest collectors like Keynes in purchasing them, until 1943. Then, in the wake of its purchase of Newton's birthplace, Woolsthorpe Manor, on behalf of the National Trust, the Pilgrim Trust was persuaded to buy the collection at the revised asking price of £5,000 and present it to Trinity College, Cambridge. The Master of Trinity, G.M. Trevelyan, took the lead in approaching the Pilgrim Trust for assistance, and accepted the books on behalf of the College on 30 October 1943.

John Harrison, *The Library of Isaac Newton* (Cambridge, 1978); H. Zeitlinger, 'A Newton Bibliography', in W. J. Greenstreet (ed.), *Isaac Newton 1642–1727* (London, 1927), pp. 148–70; R. de Villamil, *Newton: The Man* (London, [1931]).

72 cambridge university library, ms. add. 8536, f. 2r
(figure 42)

J.M Keynes and A.S. Yahuda were responsible both for the amassing of substantial collections of Newton papers in the years following the Sotheby sale and for the beginning of the interpretation of those manuscripts. In 1942, Keynes was asked to prepare a brief talk about Newton's chemistry for an anniversary meeting of the Royal Society on 30 November to celebrate Newton's birth. He was subsequently asked to repeat it at Trinity College, Cambridge, in 1943 and a revised version was read by his brother, Geoffrey, on 17 July 1946 at the delayed public commemoration of Newton's tercentenary. This lecture summed up a

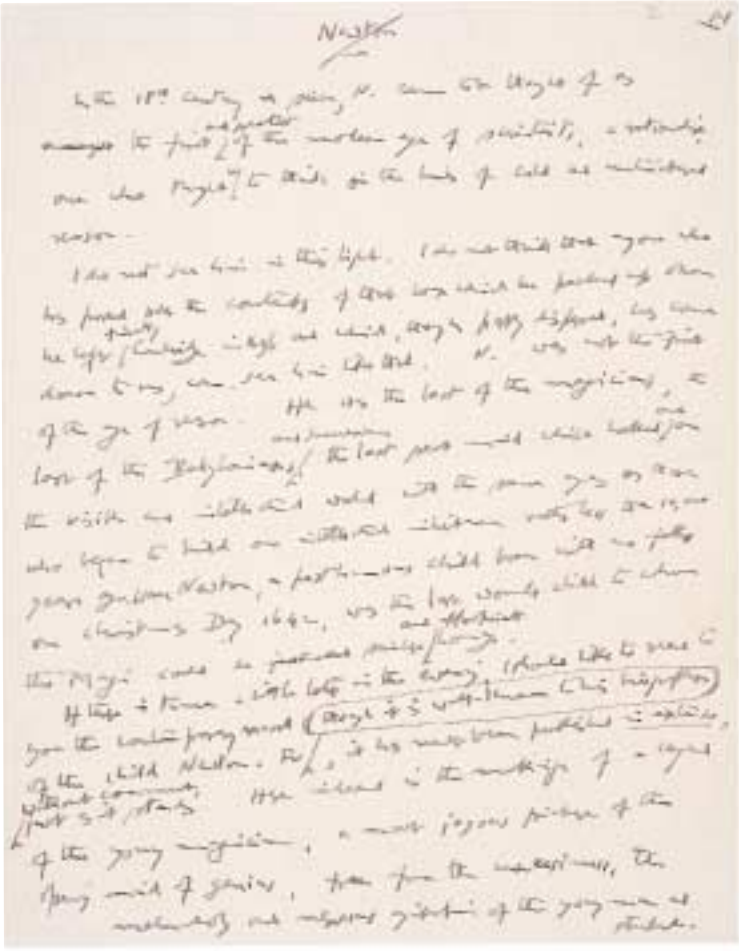

figure 42
'The last of the magicians': Keynes sums up Newton's work, Cambridge University Library, Ms. Add. 8536, f. 2r.

change in Keynes' thinking about Newton. It also pointed to a development of the Sotheby sale that was to have long-term consequences for the understanding of Newton's work. In his talk, Keynes remarked that 'In the 18th Century as since, [Newton] came to be thought of as the first and greatest of the modern age of scientists, a rationalist, one who taught us to think on the lines of cold and untinctured reason… I do not see him in this light…[Newton] was not the first of the age of reason. He was the last of the magicians, the last of the Babylonians and Sumerians…'

Keynes' startling words represented a turning point. Since 1946, the study of Newton's manuscripts in all their forms has dominated the attempt to make sense of his ideas. Although Keynes' own interpretation now seems shockingly naïve, the papers that he helped to collect nevertheless make it possible to see Newton at work in all his guises for the first time.

John Maynard Keynes, *Essays in Biography*, ed. Geoffrey Keynes (London, 1951), pp. 310–23.

Presented to Cambridge University Library by Sir Geoffrey Keynes.