

'All M^r Boyl's pieces': Robert Boyle and the Bodleian Library

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AT SOME POINT IN THE 1690S OR THE EARLY 1700S, a Bodleian reader scribbled into the endpapers of, ironically, a conservative Aristotelian textbook in natural philosophy a reading list for the young neophyte keen to follow the most recent trends in experimental philosophy. The list contains a dozen titles of a strongly modernist slant, including specific works by Jean-Baptiste Du Hamel, René Descartes, Jacques Rohault, and Walter Charleton, but it concludes with the sweeping recommendation: 'All M^r Boyl's pieces'.¹

This was a recommendation Oxford's libraries, especially the Bodleian, could by that point already satisfy. The series of connected notes presented here aims to document this claim through an analysis of Boyle books in Oxford, chiefly in the Bodleian Library. I am primarily interested in Boyle books present in Oxford by roughly the turn of the century, when the remark on 'All M^r Boyl's pieces' was made, but I shall also widen my investigation to encompass a lesser-known category of Boyle books, namely those presented by Boyle to Oxford institutions or to Oxford men; and later on in these remarks I also stray into some other Oxford accessions of Boyle books. The tools of this investigation are those of the scholar of provenance; but my aim is not solely bibliographical. For this is also an account of the spread of a particular kind of knowledge in late seventeenth-century Oxford and beyond, through the example of one, arguably the, major scientific author of the period. I hope that this approach will be of use to two kinds of scholar, therefore: the student of Boyle and of early-modern science, keen to learn how quickly and through what exact channels the texts of Boyle became institutional holdings in one major university; and also to the

¹These notes form a complementary exercise to Jordan Avramov, Michael Hunter, and Hideyuki Yoshimoto, *Boyle's Books: The Evidence of His Citations*, Robert Boyle Project, Occasional Papers No. 4 (2010), and see now too Avramov and Hunter, 'Reading by proxy: the case of Robert Boyle', *Intellectual History Review* 25 (2015), 37-57. I am grateful to David Helliwell of the Bodleian Library for advising me on some sinological questions, and to Michael Hunter for assistance with Boyle's biography and for his genial encouragement and corrections. The standard bibliography of Boyle is John F. Fulton, *A Bibliography of the Honourable Robert Boyle, Fellow of the Royal Society*, 2nd ed. (Oxford: Clarendon Press, 1961). References to Boyle's correspondence, under the abbreviation of *BC*, are to Robert Boyle, *The Correspondence of Robert Boyle*, ed. Michael Hunter, Antonio Clericuzio, and Lawrence Principe, 6 vols. (London: Pickering and Chatto, 2001). Boyle's works are referenced against the edition of his *Works*, edited by Michael Hunter and Edward B. Davis, 14 vols. (London: Pickering and Chatto, 1999-2000), and, in the notes, short-titles follow the forms recommended in that edition.

8^o Rawlinson 647: Robert Sanderson, *Physicæ scientiæ compendium* (Oxford: Richard Davis, 1690). For a comparable printed reading list, see that appended to the *Synopsis Physicæ* of Francis Willis of New College (London: John Place, 1690), pp. 103-8, dominated by Boyle tracts. One other manuscript list known to me of recommended reading for students, including texts by Boyle, is that dictated by James Gregory, again probably in the 1690s, now scattered in Edinburgh University Library, MS Dk 3.32. It is worth noting that Gregory encompasses Boyle's 'Philosophical essayes, his discourses of y^e air edit. 1662. his experimental philosophy, seraphick love & his discourse of y^e stile of y^e scriptures' (fol. 12v), the whole range of Boyle's genres.

student of provenance research, especially as it concerns Oxford books, and especially those in the Bodleian Library. The archival materials here exploited from the Bodleian's own library records are a rich resource capable of being manipulated in similar ways for other authors and subjects, and perhaps this aspect in particular will prove suggestive.

This is in no sense an exhaustive bibliography, therefore, but rather a series of worked examples of how copy-specific observations juxtaposed with local administrative records can be used to assemble a particular kind of bibliographical-intellectual analysis. My approach is exhaustive for books that arrived in the Bodleian demonstrably prior to 1700, although I am less forward to claim that everything since then has found a mention in the following account, and I have excluded modern collections absorbed by the Bodleian comparatively recently, for instance the Printer's Library, formerly held by Oxford University Press. Some casual accessions of Boyle titles amidst larger sets of books are simply that, and are of interest to the enumerative bibliographer, but not to the intellectual historian. One puzzling twentieth-century phenomenon, deserving separate enquiry, is the set of Boyle books I shall dub the 'Theta Boyles', that is the many copies of Boyle titles, but frequently in their continental Latin translations, in the 'Theta' classification of the Bodleian. This was a shelfmark used for various purposes between 1840 and 1936. The concentration of Boyle titles in this shelfmark is striking, covering twenty-nine separate volumes and many more separate titles, *all* in 12 or 13 Theta, and from the very end of the chronological life of this series as a shelfmark. The evidence of the dated accession stamps helpfully employed at this time shows that most of the 'Theta Boyles' arrived in the Bodleian at roughly the same time, and yet pencilled notes in the copies themselves on sellers, and the extremely varied bindings of these books, point to different origins for all these books. Therefore we must conclude that there was a conscious drive in the Bodleian to acquire Boyle books in the 1930s. Why this was so remains slightly mysterious.² Many such later accessions bear earlier, and often significant, provenance markings too, even if they do not typically tell us much about Oxonian academic culture.³ I should also note that I have

² I am grateful to Tony Simcock of the Museum of the History of Science for his views on this matter. There was no love lost between Gunther and the Bodleian hegemony (on which see Simcock, *Robert T. Gunther and the Old Ashmolean* (Oxford: MHS, 1985)), and so it is unlikely that the foundation of the MHS had a part to play here: more likely, as Simcock suggests to me, is that this sudden spurt of Boyle acquisition had something to do with John Fulton's work towards his *Bibliography of the Honourable Robert Boyle* [1st edition in *Proceedings* of the Oxford Bibliographical Society, March 1932]; Fulton was working in Oxford in this period.

³ To cite a handful of examples as prompts to further research: 1) a 1663 Boyle *Usefulness*, shelved at 12 Theta 1329, bears the 1701 bookplate of Algernon Capel, Second Earl of Essex (1670-1709). A pencil hand of the late C17/early C18 has added small strings of exasperated comments in the margins ('who knows but this is a Lye? it looks very like one'; 'I know [how to achieve this], but I'll tell no body y^t reads not my book throughout'; and a number of similar parodic voicings of Boyle's accustomed reticence). For this book, see now Michael Hunter's comments in 'Boyle and Secrecy' in Hunter, *Boyle Studies: Aspects of the Life and Thought of Robert Boyle (1627-91)* (Aldershot: Ashgate, 2015), who confirms that this is indeed the hand of the second earl. 2) 12 Theta 1306, *Seraphic Love*, 2nd ed. (1661 [1660]), bears the printed label 'E Libros

encountered at least one retrospective insertion into an older series, namely a Boyle book acquired in modern times, but added to the Tanner series.⁴ There is another, fundamental omission I should declare at once: I have not extended this survey to the college (and hall) libraries in any significant sense, although I do recognise the early ‘department’ of the Ashmolean Museum. I note college copies here and there, and some specific discussions of holdings in New College, Balliol, and Queen’s are offered, but a full investigation of this area will require exhaustive analysis of the various benefactors’ books of the colleges and halls surviving from the period.

I. Personal Connections

Boyle himself had lived in Oxford for about thirteen years, from late 1655/early 1656 until 1668, when he moved to London. At Oxford, he was a celebrity, and even foreign visitors wrote home admiringly on the man whom ‘if we had one hundred such Boyles, I doubt not that we would shortly see all nature revealed’.⁵ Boyle rented rooms in Deep Hall, adjacent to University College, and in 1655 he donated £10 ‘Fabricae Refectorij’ to his neighbouring college.⁶ He took at least one chemical

quos Vir Reverendus JOANNES COCK, Vicarius S^{ti} Oswaldi Dunelm: Successoribus suis in perpetuum Legavit.’ John Cock, M.A. of Christ’s College, Cambridge, was vicar of St Oswald’s until his deprivation in 1690 as a Non-juror. He left his library to his successors, and £20 to build a room for it (Robert Surtees, *The History and Antiquities of the County Palatine of Durham*, 4 vols. (London: Nichols and Son *et al.*, 1816-1840), vol. 4, 2nd pagination, pp. 82-3). Alas one of Cock’s *successores* dispersed St Oswald’s library by sale in 1930, and this particular volume was purchased by the Bodleian in 1931. The original catalogues of the Cock library were acquired by Durham University Library, where they are now Add. MSS 765-766, and they can be used to reconstruct the original layout of the collection. 3) 12 Theta 1313, *Effluvioms* (1673), bears the bookplate of Peter Nouaille, ‘Greatness’, i.e. Great Ness House, Kent. Nouaille, of Huguenot origin, was a prominent eighteenth-century silkworm breeder and owner of a silk mill in Sevenoaks. His daughter married the botanist and antiquary Edward Rudge. 4) 12 Theta 1813, *Usefulness*, 2nd ed. (1664), ‘Liber Aulae Novi Hospitii Oxon’, i.e. from the dispersed library of New Inn Hall, Bodleian accession stamp of 1935. 5) Finally, an example of a Boyle gift that has ended up in the Bodleian by serendipity is Don. f. 230, a copy of the *Effluvioms* (1673) marked at the base of the title-page ‘For D^r Henry More from the author’; it had several subsequent owners before entering the Bodleian.

⁴ This is Tanner 962, a copy of *Christian Virtuoso*, 2nd ed. (1690/1) and a rather curious little ‘Tanner’ book. It belonged to Thomas Tanner, to be sure, as he has signed the title-page. But it did not come to the Bodleian with Tanner’s other books, as it was bought from Goldschmidt, and the accession stamp is dated 9 December 1935. In other words, this was purchased too as part of the 1930s ‘Theta Boyles’ initiative described above but added on to the end of the pre-existing Tanner series rather than being placed in Theta. This is an interesting instance of sensitivity to prior provenance patterns already established in the Bodleian – there are other examples, especially in the Lincoln series.

⁵ Thus the travelling Dane Olaus Borrichius to Thomas Bartholinus, 10 August 1663, printed in the latter’s *Ep. Med. Cent. IV* (Copenhagen, 1667), pp. 520-24 (‘nec dubito quin si centum haberemus Boyleos, totam Naturam brevi videremus patefactam’); yet Borrichius also comments that Boyle has so far only published in the vernacular. Borrichius’s fuller diary, only published in modern times, contain many further mentions of Boyle as well as extensive notes from some of Boyle’s works: *Olai Borrichii Itinerarium 1660-1665*, 4 vols., ed. H. D. Schepelern (Copenhagen and London, 1983).

⁶ University College Archives, BE1/MS1/3 (Library Benefactors’ Book), p. 15. Boyle is not remarkable in this respect; many people were similarly encouraged in this period.

apprentice.⁷ While at Oxford and in later life Boyle came to know two of Bodley's Librarians: first Thomas Barlow (1608/9-91, librarian 1652-60), and subsequently Thomas Hyde (1636-1703, assistant librarian from 1659, librarian 1665-1701). It was because of these two friendships that Boyle came to donate several interesting books to the Bodleian Library. At the same time, Boyle's own originality, productivity, piety, and aristocracy all conspired to turn him into a publishing phenomenon in his own right, and the Bodleian received early on from various sources most, possibly all, of Boyle's publications.

The Oxonians were proud of Boyle's presence among them, and he was created Doctor of Physic in 1665, his only degree.⁸ Boyle's relations with the Bodleian and particularly with Barlow were cordial. On 6 September 1659, for instance, the London intelligencer Samuel Hartlib wrote to Boyle, reporting a recent letter from Henry Oldenburg, in which Oldenburg had thanked 'our noble philosopher at *Oxford*' (i.e. Boyle himself) for 'procur[ing] for a friend of mine' a text from the Bodleian. Oldenburg now asked, again for a friend, for a renewed search for a Mainz impression in the Bodleian, as well as a copy, to be supplied by the Bodleian assistant Henry Stubbe, of an 'Oratio funebris Caroli Aretini habita à Leonhardo Aretino'.⁹ The context suggests not that actual books were being alienated at Boyle's request - though there is evidence that manuscripts were removed earlier in this decade for John Selden¹⁰ - but

⁷ See John Wallis's letter to Ralph Bathurst as Vice-Chancellor, 10 April 1676, stating that the local apothecary and chemist White was worthy of being matriculated as a privileged person, for he 'hath served [as an apprentice]: First to Mr Stahl for Three years; who's trade it was; and afterwards, for Ten years, to Mr Boyle; a Doctor of Physick of this University, & a great Operator in Chymistry'. OUA, S.P. E 14, item 4. White was indeed accordingly matriculated, the very next day: OUA, S.P. F 20, *sub anno*.

⁸ Anthony Wood's failure to include Boyle in his 1674 *Historia et antiquitates Universitatis Oxoniensis* caused complaints, as John Aubrey informed him (MS Wood F 39, fol. 280r). Boyle was presented for his degree by James Hyde (1618-81), the Regius Professor of Medicine, who gave an oration in praise of the recipient (Nicholas Tyake, ed., *The History of the University of Oxford, vol. 4: The Seventeenth Century* (Oxford: Clarendon Press, 1997), p. 520).

⁹ *BC*, vol. 1, pp. 387-90. Evidently the locating of both works in the Bodleian was causing trouble. The Mainz work is by 'Pizibran' (Przibram) and was indeed printed in J. D. Cochlaeus's *Historiae hussitarum* (Mainz, 1549), as the editors of Boyle's correspondence note; the 'oratio funebris Caroli Aretini habita à Leonhardo Aretino', they additionally state, is by Carlo Marsuppini, but remains untraced as a printed text. The Cochlaeus was indeed listed in the printed Bodleian catalogue of 1620, although there was no cross-reference under 'Pizibran', hence presumably the difficulty of honouring the request; as for the latter there is no lead at all in the catalogue under 'Aretinus', despite Hartlib's friend's claim that he had been led to these works by the catalogue. Boyle in a letter to Hyde later recalled having seen a Mexican herbal in person in the Bodleian, and he also enquired whether the library had any books by Andreas Solea, starting with his work on metals (Boyle to Hyde, 4 December 1679, in Hyde, *Syntagma*, vol. 2, p. 468, not printed in the *Boyle Correspondence*). The herbal is Francisco Hernández, *Rerum medicarum Novae Hispaniae thesaurus* (1649, enlarged edition 1651; Boyle is surely recalling the copy of the latter edition, now H 1.5 Med). Hyde's reply (printed in *BC*, vol. 5, pp. 170-73) also states that the Bodleian has no books by Solea.

¹⁰ Bodleian, MS Selden 109, fol. 358r, letter of Gerard Langbaine to Selden, 11 February 1650.

that Boyle was using his influence in Oxford to commission scribal copies of rare printed works.

Barlow and Boyle became friends through their shared interest in theological casuistry: Barlow, who was successively Provost of Queen's (1658), Lady Margaret Professor of Divinity (1660), and eventually Bishop of Lincoln (1675), was a moral adviser to Boyle in the 1650s and again in the 1680s; he wrote manuscript cases of conscience for Boyle, and Boyle called him 'our profoundly learned Library-Keeper'.¹¹ Boyle's relationship with Hyde, a younger man, was more hierarchical, the latter occasionally deferential to the point of obsequiousness. Hyde had been drawn to Boyle's attention by March 1663, when the Savilian Professor of Geometry and Keeper of the university archives John Wallis offered the library under-keeper's (paid) services to Boyle for a transcription of the fourteenth-century Arabic scholar Abulfeda (Abu'l-Fida) on latitudes and longitudes. Hyde subsequently indeed made transcriptions and translations from both Arabic and Persian for Boyle's benefit.¹² Hyde himself corresponded directly with Boyle on oriental and scholarly matters from 1667,¹³ and Boyle later also provided funds for, and received the dedication of, the edition of the Malay Gospels and Acts *Jang Ampat Evangelia Derri Tuan Kita Jesu Christi, daan Berboatan Derri Jang Apostoli Bersacti* which Hyde arranged to have printed by the Oxford press in 1677.¹⁴ This, however, was a futile work, a reprint of a

¹¹ Michael Hunter, *Robert Boyle: Between God and Science* (New Haven and London: Yale University Press, 2009), pp. 100-1, 122, 205-8; *BC*, vol. 1, p. 322. There is manuscript of Barlow's answer to 'An in dubiis pars tutior sit eligenda' prepared for Boyle by Barlow in The Queen's College, MS 294; a quantity of Barlow's casuistry remains in manuscript in that college. See Michael Hunter, 'The Disquieted Mind in Casuistry and Natural Philosophy: Boyle and Thomas Barlow', in Hunter, *Boyle Studies*, ch. 5 (pp. 107-29).

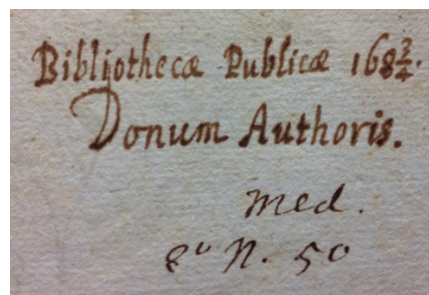
¹² *BC*, vol. 2, p. 72; G. J. Toomer, *Eastern Wisdom and Learning: The study of Arabic in seventeenth-century England* (Oxford, 1996), p. 295; and see the subsequent note.

¹³ *BC*, vol. 3, pp. 298-99, enclosing Hyde's transcriptions out of Arabic and Persian authors for Boyle on sal ammoniac, petrification, and amber. These have now been identified, at Royal Society, Boyle Papers 24, 355-57, by Avramov and Hunter, 'Reading by Proxy', pp. 10-11, who comment that the extracts are from texts by the botanist and physicist Ibn al-Baitar (1197-1248), and the geographers Ibn Khordadbeh (c. 820-912) and Abu'l-Fida (1273-1331).

¹⁴ The epistle to Boyle is signed by Hyde, but the long preface was written by Thomas Marshall of Lincoln College. For the complex printing of the edition, see *BC*, vol. 4, pp. 440-3, 447-48, 450-52, 458-59, 461-63, being Hyde's reports on its progress. Boyle funded an edition of five hundred copies, but in the event the book being shorter than Hyde had predicted, some of Boyle's subvention was returned to him. Hyde also printed an extra supply of prefaces which he had bound in blue paper, sending a set to Boyle and retaining a set at Oxford. Likewise Anthony Wood's copy, now Wood B 36(2), is a presentation copy from Marshall of solely the title-page and Marshall's preface. See Thomas Smith's comment to Edward Chamberlayne (MS Smith 59, p. 105, 5 February 1709): 'I know of no Malayan Grammar properly so called, printed at Oxon. Mr Boyle was at the charge of printing the New Testament in the Malayan Language: to which Dr Marshal prefixed an excellent preface, in which you have an account of what has been done in Holland in this kind.' Hyde appears to have presented two copies of the work to his predecessor, as both Queen's copies are Barlow books, donated to Barlow 'ex dono editoris' and 'ex dono Proto-Bibliothecarij Bodlianae' (Tunnel UU.i.252, 253). One Bodleian copy at B 26.32 Linc, was presented by the library's Janitor: 'Ex dono Lamb Janitoris'.

romanised text prepared earlier by the Dutch scholar Johannes Heurnius, and it is hard to see what purpose such a book could serve in the field. Hyde even admitted that the romanisation of the English imprint still agreed with Dutch, rather than English, pronunciation. But it was a spur, and Hyde kept up a subsequent correspondence with Boyle concerning evangelism in the Malay language, and eventually special type was cut for Malay at Hyde's instigation.¹⁵ A letter of Hyde to Thomas Tanner just after Boyle's death confirms that Hyde, who was having no luck with Boyle's executors, believed Boyle intended to have paid for the edition; the final text was to have contained the Gospel of Luke and the Acts.¹⁶ John Fell, too, became interested in the project, and wrote rather unrealistically to Archbishop Sancroft that Boyle, Gilbert Burnet, and the East India Company hoped to set up a committee to raise £5000 to support the study of Malay at Oxford.¹⁷ We shall hear more of Boyle and Hyde's oriental interests later.

It was only natural that Boyle would seek to make some donations to the Bodleian, although I have traced only one donation by Boyle of his own writings, *Memoirs for the Natural History Of Humane Blood* (London, 1683/4):¹⁸



Donation inscription on 8° N 50 Med,

¹⁵ On the project and subsequent discussion of Malay matters, see *BC*, vol. 5, pp. 447-48, 6.111-12, 274, 278-79, 284-86, 445-46; Hunter, *Boyle*, pp. 195-97. Hyde also received a printed book of Psalms 1-50 in Malay from the merchant Henry Dacres, now Marshall 201, noted by Hyde in c. 1682 in his accessions register with its original shelfmark, at Lib. recs. c. 853, fol. 124r. For a contemporary Malay manuscript grammar in the Bodleian see MS Ashmole 1808, 'Grammatica Mallayo-Anglica The Mallayan Grammar Composed by WM [William Mainstone] Esq^r 1682'. Malay scholarship in later seventeenth-century England is excellently surveyed in Anna E. Winterbottom, 'Company Culture: Information, Scholarship, and the East India Company Settlements 1660-1720s', Ph.D. thesis, University of London, 2010, ch. 3.

¹⁶ This undated letter of Hyde to Tanner is preserved in Tanner's copy of the second edition of Wood's *Athenae Oxonienses*, 2 vols. (London, 1721), vol. 2, now MS Top. Oxon. b. 9, between cols. 971/2 and 973/4.

¹⁷ MS Tanner 36*, fol. 57r, 21 June, [1681] (not £6000, as Hunter, *Boyle*, p. 196).

¹⁸ Hyde recorded its receipt in 1684, wishing too that Boyle would in time present the library with his *General History of the Air*, on which see below. *Human Blood* is now 8° N 50 Med, with written neatly on the recto of the front end-paper: 'Bibliothecæ Publicæ 1683/4 . Donum Authoris.' Boyle's presentation copy is otherwise unmarked, but perhaps peculiarly it bears a bookseller's price-code, 'a' over 'f' (= 1s 6d?), on its title-page. See *BC*, vol. 6, p. 67; *Works*, vol. 10, p. xvi.

We know too that his *General History of the Air* (1692) came later, in 1704, from John Locke, a man who had more books by Boyle in his own library than by any other author.¹⁹ Locke's own copy, now Locke 9.17, has been interleaved throughout for the purpose of interpolating parallel observations. Locke did not avail himself of his interleaves much, but he did write out a few paragraphs from Isaac La Peyrère on Greenland, and on his own memories and those of others on animal health.²⁰ The reason why Locke donated this particular Boyle title to the Bodleian is because he himself orchestrated its publication, Boyle having died in 1691; the final published text included an old letter from Locke himself, signed from Christ Church College back in 1666.²¹ Locke in his own copy annotated this letter in order to identify a man the printed text refers to only anonymously; but if the only copy today in the Bodleian possibly Locke's gift really is so, he has not transferred this piece of information into it.²² Locke was also responsible for publishing the second volume of Boyle's *Medicinal Experiments*, in 1693.²³ The more impressive gifts of

¹⁹ W. D. Macray, *Annals of the Bodleian Library*, 2nd ed. (Oxford, 1890), p. 173. Of the three current Bodleian copies it cannot by definition be the Ashmolean or the Locke copy, and the copy in the Lincoln series is unmarked (and with pp. ix-xii bound out of place at the end). For Locke's library see John Harrison and Peter Laslett, *The Library of John Locke*, 2nd ed. (Oxford, 1971), with Felix Waldmann, 'The Library of John Locke: additions, corrigenda, and a conspectus of pressmarks', *Bodleian Library Record* 26 (2013), 36-58. Locke marked at least three of his Boyle books as gifts from the author (Harrison and Laslett, *Library*, nos. 445 [*Languid Motion*, 2nd ed. (1690), now Bodleian, Locke 7.29], 447 [*Experimentorum novorum [...] continuatio secunda* (1680), now Locke 7.42], 453 [*Effluvioms* (1673), now Locke 7.81]), and see pp. 13, 23-24, 38, 41 for general remarks on Locke's Boyle books. Incidentally, the copy of *General History of Air* (1692) in the Royal Society library is inscribed 'Liber Societatis Regalis ex dono Executorum Dn: Boyle', so at least some copies were distributed by Boyle's executors.

²⁰ Opposite pp. 151, 189, 235.

²¹ On Locke's role in publishing *General History of Air*, see Boyle, *Works*, vol. 12, pp. xi-xxii. A manuscript of a substantial portion of the work survives in the Locke papers in the Bodleian (MS Locke c. 37, Boyle's autograph, corrected by Locke), showing that the work was commenced in the 1660s; Locke sent out at least five complimentary copies upon publication, so it seems odd that he waited over a decade to present a copy to the Bodleian. In general see M. A. Stewart, 'Locke's Professional Contacts with Robert Boyle', *Locke Newsletter* 12 (1981), 19-44; Hunter, *Boyle*, pp. 235-36. There are a few other Boyle-related items in the Locke MSS in the Bodleian (MSS Locke b. 1, containing the agreement relating to the copyright of *The General History*; Locke c. 31, a contents list for Boyle's *Cold* (1665); Locke c. 4, containing a letter from Boyle; Locke c. 44, containing chemical and medicinal recipes from Boyle; Locke f. 25, containing chemical notes derived partially from Boyle; Locke c. 27, containing notes on Boyle's *Christian Virtuoso* [edited in Peter Anstey, 'The *Christian Virtuoso* and John Locke', *On the Boyle*, 2 (1998)]). Further Boyle items in the Locke papers and one in the Lister manuscripts in the Bodleian have likewise been edited in Michael Hunter, ed., *Robert Boyle's 'Heads' and 'Enquiries'*, Robert Boyle Project, Occasional Papers No. 1 (2005).

²² This is the Lincoln copy (F 1.24 Linc), mentioned above. For the annotation, see Boyle, *General History of Air*, p. 140: the passage 'A gentleman ... he being pretty ancient, but healthy Man' is annotated by Locke, 'M^r Jones of Stowey who lived to above 90 years very healthy & died in the year 1692'.

²³ Boyle, *Works*, vol. 12, p. xxix; Hunter, *Boyle*, p. 246. The Bodleian copy at 8° N 64(2) Med, in a Sammelband of Boyle works, is unlikely to be a presentation copy. One Bodleian copy (8° M 209(3) Med) of the first part of the *Medicinal Experiments* (London, 1692) bears the (cropped) note on the title-page: 'NB Those medicines mar[ked] thus * were thoug[ht] to be y^e best by D^r Not[...]', and many of the recipes are indeed

Boyle to the Bodleian were books written by other men, although only two such donations are recorded in the official Benefactors' Book. To these we now turn.

II. Two Imposing Benefactions: Goltzius and Paracelsus



Front board of Bodleian, Arch.Num. II. 40.

The most imposing of Boyle's gifts to Oxford are his earliest, both arriving in 1658 and hence not long after Boyle moved to the town. The first is Hubert Goltzius, *Romanae et Graecae antiquitatis monumenta e priscis numismatibus eruta*, 5 vols. (Antwerp: Officina Plantiniana of Balthasar Moretus, 1645).²⁴ Goltzius (1526-1583) was perhaps the major numismatist of the sixteenth century, indeed a man with his own private press, and these volumes comprise the long-awaited edition of his *opera omnia*, prepared by Caspar Gevartius, and undertaken by the commercial Plantin Press at great expense. Volume one of Boyle's gift of the *opera* bears on the inner paste-down 'De Tomorum distributione in Opere hoc Goltzia[no] et Ordine, vide hic infra. pag. 13.' This is in the unmistakable hand of Barlow himself, which localises the receipt of these volumes, as we would expect, to the period of his librarianship. 'Tome' numbers are also entered by hand on the half-titles of each

asterisked. Printed as an appendix to this edition, published by Samuel Smith, is *A Catalogue of the Philosophical Books and Tracts, written by the Honourable Robert Boyle, Esq.* As a final remark on Locke and Boyle we may note that in 1692 both Boyle and Locke were addressed in parallel by Jean Le Clerc, who dedicated his London-published *Logica* to the former and its sequel *Ontologia* to the latter (London: Awnsham and John Churchill, 1692).

²⁴ Arch.Num. II. 40-44 *olim* G 2.3-7 Art. *deinde* Arch. Num. 56-60 (surviving spine labels for 57-9).

volume. These five large folios, bound in their original calf, are now somewhat damaged, their original gold tooling present but in decay, their covers stamped with double frames with corner fillets, spines with decorated compartments bearing fleurons and titles, page edges speckled. The five volumes were originally chained from the top right of the front board, the standard for the old Bodleian folios. Strikingly, each volume bears arms panel-stamped and gilded on both covers. (We know that Boyle sometimes presented books richly bound, but arms are not otherwise mentioned.)²⁵ The volumes are not signed by or on behalf of Boyle, but the identity of the donor is signalled by the heraldic achievement, party per bend embattled, as in the detail below.



Figure 2: Detail from front board of Bodleian, Arch.Num. II. 40

Now party per bend embattled argent and gules are the arms of the Boyles, here with a helm and the crest of a lion's head erased; and the cadency of the martlet²⁶ identifies these arms as specifically those of Boyle himself, and they match those employed in printed texts sponsored by Boyle, e.g. those of Robert Morison (1680) and Richard Blome (1686):²⁷

²⁵ For an example see John Beale to John Houghton, 1 February 1681, on receiving a Boyle book 'richly embeloshed with gold and other ornaments ... he [has] obligd me with his many other Volumes in the like manner richly garnished' (*BC*, vol. 6, p. 448). This accords with the copy of *Human Blood* at 8° N 50 Med, now somewhat damaged, but with elaborate gold-tooling on the spine.

²⁶ The cadency is the mark borne in chief of the shield, signifying relations within a family. The martlet as a mark of cadency signifies the fourth brother, and Robert was indeed the fourth surviving son upon the death of his father. See R. E. W. Maddison, *The Life of the Honourable Robert Boyle* (London: Taylor & Francis, 1969), p. 257n. The earliest recorded use of these arms by Boyle was formerly thought to be a seal in British Library, MS Add. 32093, fol. 293, from 1652 (see *BC*, vol. 1, p. 135), but see now Maria Boxall and Michael Hunter, 'A Recently Discovered Boyle Letter of 1646', in this issue, for a use of Boyle's armorial seal (albeit fragmentary) at that date. For a handy table of the marks of cadency, consult David Pearson, *Provenance Research in Book History: A Handbook* (London: The British Library & Oak Knoll Press, 1998), p. 281.

²⁷ Boyle did not typically employ his arms in portraiture, but they were used in volumes to which Boyle subscribed or sponsored, thus above: Robert Morison, *Historia Plantarum* (Oxford, 1680), Table 7, section 2 (where he is called the 'Coryphaeus' or chorus-leader of the experimentalists); Richard Blome, *The Gentlemans Recreation*



Details from Robert Morison, *Historia Plantarum* (Oxford, 1680) [Bodleian, Wood 660n (Pt. 2)], Table 7, section 2, and Richard Blome, *The Gentlemans Recreation* (London, 1686) [Bodleian, Douce B subt. 47], fol. 3, no. 56.

That Robert Boyle was the donor rather than just the owner is confirmed by the elaborate entry in the Bodleian Benefactors' Book under the year 1657 o.s./1658 n.s.²⁸ This entry, partially available through Macray's published list of Bodleian benefactors in his *Annals of the Bodleian*, is now somewhat damaged, and almost entirely illegible towards the end, but close inspection shows that Boyle also donated another work at this time, passed over in silence by Macray, presumably because he could not read it. This second gift was the three-volume 1658 Geneva edition of Paracelsus, a very recent publication.²⁹ These books are also still in the Bodleian today, and they are likewise stamped with Boyle's arms, and bear Barlow's inscriptions of presentation, although Barlow records that these volumes came under his hands in December of 1658, ten months after the Goltzius volumes arrived. So Boyle's first two major donations

(London, 1686), fol. 3, no. 56. Nor does Boyle appear to have used a bookplate, unlike many of his relatives. The stamp has been noted by the British Armorial Bindings database: <http://armorial.library.utoronto.ca/stamp-owners/BOY005>. But the Boyle crest is there inaccurately treated as a sea-lion's head erased.

²⁸ Lib. recs. b. 903, p. 388, where the date is given as 26 February 1657; Macray, *Annals*, p. 427, assumes that this is old style, and the surrounding entries show this is the correct interpretation of the date.

²⁹ Hyde's 1674 Bodleian catalogue shows that this edition originally stood at P 1.12, 13 Med, i.e. three volumes in two; those shelf-marks are now occupied by other volumes (Thomas Hyde, *Catalogus impressorum librorum bibliothecae Bodlejanae* (Oxford: Sheldonian Theatre, 1674), s.n. 'Paracelsus'); today, the volumes, still with their cancelled shelf-marks, are at R 2.3,4 Med, the first inscribed 'Liber Bibl. Bodlianae ex dono Nobiliss. Viri Rob. Boyle, Honoratiss. Comitum Corcagiae (demortui) filij, et superstitionis fratris. Ann. Dom. MDCLVIII Decem. XIII.' (the form of this inscription follows the wording of the entry for Boyle in the Benefactors' Book).

arrived as separate gifts and yet were stamped with the same panel stamp, and entered into the library register at the same time.

The presence of the Boyle arms specific to Robert on all these volumes marks them as Boyle's own gift and not simply volumes he persuaded some other member of his family to allow him to donate to the Bodleian. Yet Boyle had no pronounced interest in numismatics, and he presented the Geneva Paracelsus immediately after its publication. He probably did not hold as personal possessions the former, and cannot have held the latter, publication for long, if at all.³⁰ We may also wonder whether there are other surviving books bearing the Boyle stamp. Did Boyle commission this armorial stamp solely for the purpose of marking these seven expensive volumes? Or did Barlow, keen to befriend a powerful benefactor? At any rate, these volumes are so far the only Boyle books thus stamped to have come to light.

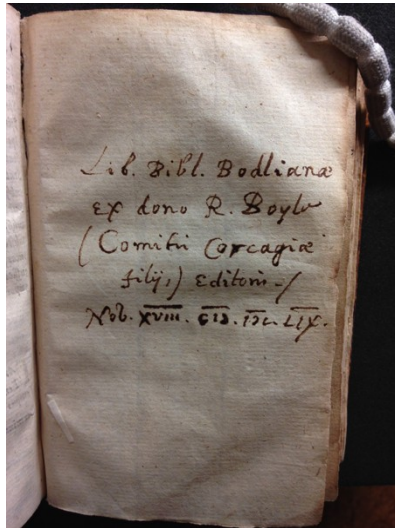
III. A Tiny Gift

The next Boyle gift known to me is at the other end of the bibliographic scale from Boyle's Goltzius and Paracelsus. This is Louis de Bils' *The Coppy of a certain Large Act [Obligatory] of Yonker Louis de Bils, Lord of Koppensdamme, Bonen, &c. Touching the Skill of a better way of Anatomy of a Mans Body* (London, 1659; shelfmark 8° R 16(2) Art. BS). This is a translation from the Dutch by the mathematician John Pell, solicited by Boyle himself, who wrote the preface and also translated a short letter from French into English in order to pad out this tiny publication.³¹ De Bils was marketing a supposed method of embalming, whereby the internal organs were first hardened and could then be investigated by dissection without any spilling of blood. This method he offered to teach for a large sum of money.³² The Bodleian copy bears the inscription 'Lib. Bibl. Bodlianae ex dono R. Boyle (Comiti Corcagiae filij,) Editoris./ Nov. XVIII. M.DC.LIX.', with 'exploded' capitals for and overlining of the year-date, and the hand is, once again, that of Barlow, who almost always notated dates thus.

³⁰ Boyle cited Paracelsus in works published in 1661 and 1664, but of course not from this edition (Avramov *et al.*, *Boyle's Books*, p. 25).

³¹ Noel Malcolm and Jacqueline Stedall, *John Pell (1611-1685) and His Correspondence with Sir Charles Cavendish: The Mental World of an Early Modern Mathematician* (Oxford: Oxford University Press, 2005), pp. 180-81; *Works*, vol. 1, pp. cxix-cxxii, 41-50; Hunter, *Boyle*, p. 122. For discussion of the book among Boyle and his correspondents, see *BC*, vol. 1, pp. 376-80, 383-84, 388-89; Henry Oldenburg planned to translate the work into French.

³² Bibliographically, the text is at first potentially misleading: the Bodleian copy bears its hand-written donation inscription on a blank, followed by the title-page, followed by sg. 'A2'; 'A3' is likewise signed. In reality the entire pamphlet comprises but two octavo gatherings, with misleading signatures in A: A-B⁸ (\$3, 'A2' for A3, 'A3' for A4). It is really sg. [A1], therefore, that bears the presentation inscription.



Barlow's inscription on Bodleian, 8° R 16(2) Art.BS.

Barlow also expanded and glossed the 'R. B.' signature to the Epistle, itself addressed to Hartlib, who had had the tract printed and twenty-five copies of it sent to Boyle in Oxford - of which this exemplar is surely one.³³ Today it is the second item in an interesting little Bodleian Sammelband, following a 1648 Oxford publication³⁴ much discussed by Hartlib and later John Aubrey and their different sets of friends, and followed by Latin and English texts of the 1648 catalogue of the Botanic Garden, and then two Elizabethan imprints. It is not certain when this Boyle title actually made it onto the shelves, however. The printer's waste used as endpapers bear the running title 'A perswasion to vniformitie' / 'vnto his Christian brethren', and these fragments of waste can be identified as deriving from a slightly puzzling source, of 1607.³⁵ The boards are original, but with an ugly later rebacking. The placement of a second vertical fillet dividing the speckled boards into two unequal compartments is a trend c. 1640-80 in English bookbinding, with the bisector drifting from tight against the spine to a third across the board as the century progressed; this example, even just over the third-way point, may thus be tentatively placed at the later end of that date-bracket.³⁶ The shelf-mark will have been the final copy-specific feature to be added prior to shelving, and 'BS' ('Bibliotheca Seldeniana') postdates

³³ *BC*, vol. 1, pp. 376-77, 379-80, 384.

³⁴ George Ritschel, *Contemplationes metaphysicae* (Oxford, 1648), and see below on the importance of the surname-shelf-letter correspondence in the 'BS' series.

³⁵ This is the running title of Thomas Sparke, *A Brotherly Perswasion to Unitie, and Uniformitie in Judgement* (London, 1607), and indeed the waste is from this publication (although in the variant STC 23019.5, and not STC 23020, as the lineation of the waste follows the former). It is doubly odd that such an old impression was available for use as waste paper for the binders at least six decades later and in a city other than that in which it was printed. (But far from unique in the Bodleian: compare 4° O 19 Jur, Roderick O'Flaherty's *Ogygia* (1685), with printed waste at the end 101 years older than the text.) In passing, the conversion of Sparke, that puritan-turned-conformist, so delighted the Oxonians that they resolved 'to have his picture painted on the wall in the school-gallery [i.e. the portrait frieze in what is now the Bodleian's Upper Reading Room] among the English divines of note', as Wood recalled (*Athenæ Oxonienses* (ed. Bliss), vol. 2, col. 190).

but is not connected in provenance to the reception of Selden's books in the late 1650s. Indeed, it was introduced in or around 1668, under the new librarianship of Thomas Hyde, to cope with unregistered accessions from 1650 to that date.³⁷ We may be confident, then, that this book was received and inscribed by Barlow in 1659, but that it took almost a decade to be fully processed, being passed over entirely during the librarianship of Thomas Lockety (in office 1660-65). That it immediately follows and is followed by a total of three Oxford 1648 imprints gives us some sense of the disorder that reigned in the Bodleian in this turbulent period. But its presence also alerts us to Boyle's activities in the years of his Hartlibian associations, and how willing the Bodleian under Barlow was to receive and inscribe such a modest imprint; conversely, that this text is not listed in the Benefactors' Book despite the social standing of its donor is a cautionary reminder of how few of the gifts to the library, especially if in small format, made it into the official register, a neglect that Hyde would not altogether reform.³⁸

IV. Barlow's Own Library

Boyle, indeed, appears to have presented several of his books to Barlow, though the publication dates and inscriptions of these gifts show that these were personal presents to Barlow, as they were given to Barlow after he had left the Bodleian, and entered the Bodleian among Barlow's bequests following his death in 1691.³⁹ One example, A 20.9(1) Linc, is Boyle's *A Defence of the Doctrine touching the Spring and Weight of the Air* (London, 1662), signed on the title-page with both Barlow's usual (but not his only) motto in Greek, αἰεὶ ἢ ἀριστεύειν, and 'Lib: Th. Barlow ex dono tou~ pa/nu Authoris ./.' This work is in its original binding, with gilded fore-edges and 'Mr Boyl' written across the whole width, and so we can be fairly sure that the second item in this Sammelband, A 20.9 (2) Linc, is by implication part of the presentation, being Boyle's *An Examen of Mr. T. Hobbes his Dialogus Physicus* (London, 1662). Another example is the *New Experiments and Observations concerning the Icy Noctiluca* of 1681/2, now 8° C 352 Linc, marked on the title-page in Barlow's hand 'Lib: Tho: Lincolne ex dono optimi et doctiss: Authoris'. A further example is Boyle's *Of the Reconcilableness of Specifick Medicines to the Corpuscular Philosophy*

³⁶ David Pearson, *English Bookbinding Styles 1450-1800* (London: The British Library, 2005), p. 68.

³⁷ G. W. Wheeler, 'Bodleian Shelfmarks in Relation to Classification', *Bodleian Quarterly Record* 1 (1916), 280-92, 311-22, at p. 288. Note that item one in this volume is written by an author whose surname begins with 'R' (Ritschel), and the volume placed in the 'R' shelving of 'BS', for indeed the 'BS' category was created in one integral effort by organising the very large number of unshelved books in alphabetic sequences within subjects (as witnessed by the curatorial handlist at Lib. recs. e. 292); most other Bodleian shelving locations had long since lost any alphabetical regularity.

³⁸ William Poole, 'The Duplicates of Hans Sloane in the Bodleian Library: A detective story, with some comments on library organisation', *Bodleian Library Record* (2011), 192-213.

³⁹ For Barlow's library and its fortunes, see William Poole, 'Barlow's Books: Prolegomena for the study of the library of Thomas Barlow (1608/9-91)', *Bodleian Library Record*, forthcoming.

(London, 1685), 8° C 336 Linc, a finely-bound volume once again with gilded fore-edges, annotated by Barlow on the verso of the second fly-leaf: 'Liber Tho: Lincolne ex dono Viri et Amici optimi, natalibus et virtute magis sua illustris Dⁿⁱ R. Boyle Authoris. Nov. 12. Anno Dom: MDCLXXXV.' This bears Barlow's characteristically brisk first-read-through pencilling, although Barlow seems to have given up reading, at least pencil-in-hand, quite early on, after about page seventeen.

Some of these 'Barlow Boyles' provide us with complex claims, however, such as 8° B 175 Linc, a copy of Boyle's *Discourse of Things Above Reason* (London, 1681), on which Barlow has inscribed on the verso of second fly-leaf, 'Lib: Tho: Lincoln: ex dono Viri natalibus et virtute magis sua illustris, D. Rob: Boyle Authoris ./ MDCLXXXII.', but has then annotated 'Authoris' with the further comment 'R. B. librum hunc mihi dedit, non composuit.' - 'Robert Boyle gave me this book, but he did not write it.' This copy is of further interest because Barlow has marked up several passages, some mere corrections to Latin quotations (p. 25), but others more substantial. Against the statement 'Geometricians will tell you, that there is no proportion betwixt a finite line and an infinite' (p. 37), Barlow has negatively commented in Latin that it is absolutely impossible to have an infinite line, and on the following page against the remark that the eye estimates distances, Barlow has written again in Latin that distance, unlike colour or light, is not something that can be apprehended by sight. The whole text has been heavily underlined in pencil throughout, the usual sign of heavy reading by Barlow, and there are several further minor annotations (second pagination, pp. 17, 34, 36).

Barlow was well-placed to question Boyle's authorship of this work, but in fact the evidence for Boyle's authorship is conclusive.⁴⁰ What then prompted Barlow's claim? Did the staunchly orthodox Barlow dislike Boyle's style of theological argumentation in this work, and hence wish to dissociate his respected friend from a text he found suspect? If so, then this may be evidence that Barlow marked some of his books with an eye to posterity, something my researches into the rest of his books have tended to corroborate.

Another interesting 'Barlow Boyle' is his copy of *Of the High Veneration Man's Intellect Owes to God* (London, 1685), at 8° C 426 Linc. The book is now in a modern binding, but it contains the original covering simply of marbled paper. It was published merely as 'By a Fellow of the *Royal Society*', but Barlow has added underneath 'The Hon:^{ble} Robert Boyle'. He has again worked through the whole text very carefully, liberally marking it with many hundreds of pencil dashes, underlines, and manicules, and there are several (probably subsequent) ink and pencil marginalia (sg. A2v, pp. 11, 12, 15, 16, 43, 44, 52, 90). Barlow has also written a short note on the book on a separate piece of paper, now tipped in before the title-page:

⁴⁰ Fulton, *Bibliography*, p. 99; M. A. Stewart, 'The Authenticity of Robert Boyle's Anonymous Writings on Reason', *Bodleian Library Quarterly* 10 (1978-82), 280-9; Boyle, *Works*, vol. 9, pp. xiii, 361-424.

See a Booke with this Title. The high Veneration mans Intellect owes to God, &c. Printed at Oxford [sic]. 1685.

The Hon^{ble} Rob. Boyle was y^e Author of it, though his name be not to it.

In this Booke he giues vs seuerall Observations (w^{ch} to many seeme incredible) grounded vpon y^e Authority and reasons of the best Mathematicians (, who onely are competent Judges of such thinges.)

For instance,

- 1°. He tells vs, (according to y^e judgement of best Mathematicians) That y^e Earth is in circuitu. 26000. Miles. pag. 12.
- 2°. That euery fix'd S[t]arr of y^e first magnitude, is 200. times bigger then y^e whole earth.
- 3°. That y^e Sun is bigger then y^e whole earth. 160. Times. and (according to y^e Calculation of some later and more exact Artiste) that it is bigger then y^e whole earth 8. or ten thousand times. pag. 11.
- 3°. [sic] That a Fix't Star in y^e Equator doth in one hour moue 3153333. And consequently, in a minute of an hour, 52555. [miles] pag. 15.

We can only guess why Barlow decided to write up his marginalia thus, but it shows Barlow casting his reading of Boyle into a form in which he could then transpose into his own writing. Again, this readying of his texts for quick deployment when necessary is something observable in other Barlow books.⁴¹

We should not, however, extend these observations to the conclusion that all 'Linc' Boyles are presentation copies to Barlow, let alone originally Barlow's books. One potentially misleading item in particular deserves mention: C 11.7(7) Linc, *Reasons why a Protestant should not turn Papist* (London, 1687), said to be written 'By a Person of Quality'. It exists in a collection of anti-Catholic works many of which have been marked up by Barlow, and this title has been particularly heavily annotated, both in pencil (usually underlining, rarely commenting), and then in ink (in which comments are frequent). This work has a particularly Barlovian ring when we turn to the second Bodleian copy, 4° Z 16(8) Jur, attributed to 'M^r Boyle' in ink on the title-page. This follows a similarly-titled work, 4° Z 16(7) Jur, *A Few Plain Reasons why a Protestant of the Church of England should not turn Roman Catholick* (London, 1678), unsigned, but attributed in ink on the title-page to 'y^e B^p of Lincoln. D^r Barlow.' This latter title, once belonging to one William Sloper of Clement's Inn (one of the old London Inns of Chancery as opposed to the Inns of Court), is particularly remarkable because after the title-page there have been tipped in two manuscript copies of letters, one of 11 July 1687 from the Archbishop of Canterbury, i.e. William Sancroft, to Barlow, advising him to suppress his name when

⁴¹ See also Hunter, *Boyle Studies*, p. 126, for comparable use of this material.

printing the work; and the second of 22 April 1675, from the Bishop of Winchester to 'M^r Provost', i.e. from George Morley to Barlow, then Provost of Queen's, on Barlow's possible succession to the See of Lincoln, summoning him urgently to London, and explaining the intrigues concerning his recommendation. The copyist, probably a writer of the early eighteenth century, annotates the first letter with a comment from Wood ('Athenae Oxon. p. 878'), to the effect that the licenser had rejected several sheets of Barlow's pamphlet, and indeed Sancroft's letter to Barlow concerns the possible censoring of the work. But the caution here is that the 'Boyle' *Reasons why a Protestant should not turn Papist*, although until recently attributed to Boyle as the 'Person of Quality' named on its title-page, has been shown by Edward Davis not to be by Boyle at all, but by one of his protégés, Dr David Abercromby, a former Jesuit. We should therefore be wary of treating the views of this pamphlet as those of Boyle himself.⁴²

Not all Lincoln Boyles are declarative of their origin and use. Among the Lincoln books there are at least fifteen Boyle titles, some bound together, but not all current 'Linc' books have always been such. Examination shows that Boyle's 1691 *Experimenta* at 8° N 43 Linc was originally at 8° B 155 Art; and his 1690/91 *Christian Virtuoso* at 8° F 20(2) Linc was originally 8° D 16 Med. Furthermore only a portion of the original 'Linc' shelving was dedicated to Barlow's bequest,⁴³ and if a volume does not bear internal marks of Barlow's ownership, it should not be assumed to have belonged to the bishop, especially if its Lincoln alphabetic designator is not A, B, or C. Thus Boyle's *Tentamina* (London, 1661) at F 1.25 Linc is unmarked, as is his *Sceptical Chymist* (Oxford, 1680, with the *Experiments and Notes* appendix) at 8° A 201 Linc. At best we can hope that the latter of these two books was Barlow's copy. (To return to an earlier discussion, the copy of *The General History of the Air* at F 1.24 Linc cannot be a Barlow book because the bishop had died the

⁴² See Edward B. Davis, 'The Anonymous Works of Robert Boyle and the *Reasons Why a Protestant Should Not Turn Papist* (1687)', *Journal of the History of Ideas*, 55 (1994), 611-29, esp. pp. 617-29; and see also Hunter, *Boyle Studies*, pp. 124-25, for some incisive remarks on the intellectual differences between Boyle and Barlow.

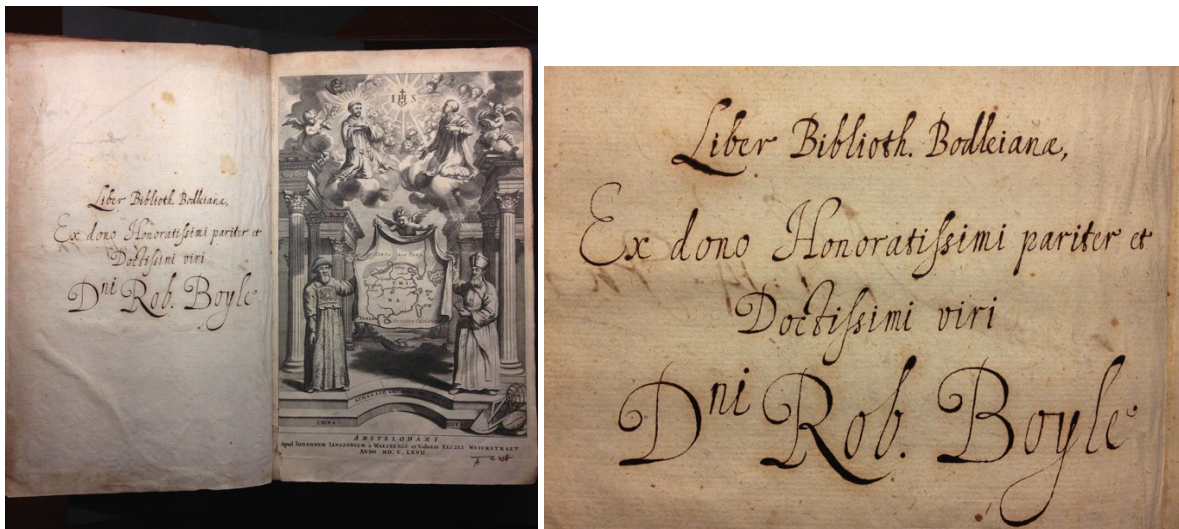
⁴³ A point occasionally misunderstood. For Bodleian shelving in the early eighteenth century, see the account of the library in John Ayloffe, *The Antient and Present State of the University of Oxford*, 2 vols. (London: E. Curll, 1714), vol. 1, pp. 457-66; and on the Barlow books, see Macray, *Annals*, pp. 157-58, and Poole, 'Barlow's Books'. Barlow's own books cease in the Lincoln series, as Macray notes, 'at about the middle of the shelves marked with the letter C in that division'; this is true for both octavos and quartos, although at slightly different points. Barlow's folios were absorbed into the general faculty classifications. Consultation of both copies and the curatorial handlists for the period shows that the whole series was subject to vicissitude. Following Barlow's will, titles already possessed by the Bodleian were to be redirected to Barlow's college, Queen's. (The two libraries also swapped duplicates in 1693; there is a list of duplicates in the fly-leaves of Queen's MS 532.) Most of the Boyle imprints in Queen's acquired in this period, however, are from the collection of Theophilus Metcalfe (1690-1757), with a few from the library of the physician Sir John Floyer (1649-1734). Among the Barlow books in Queen's there are many other contemporary authors' presentation copies, including books from George Ashwell, Thomas Hobbes, Gerard Langbaine, Edward Stillingfleet, Jeremy Taylor, James Ussher, Isaac Walton, Seth Ward, and John Wilkins. So little did the Bodleian care about recent books with significant provenances!

year before it was published; and, well down the shelving at 'F', it may, as suggested, be Locke's original presentation.)

Finally, not all of Barlow's books went to the Bodleian - duplicates were sent on to Queen's College, as Barlow had wished. Among these six-hundred-odd titles we can find at least one Boyle presentation copy to Barlow, and also a gift from Boyle to Barlow of one of the several aids to Hebrew published in the period by the Buxtorfs.⁴⁴

V. China Seen Through Western Eyes

The next gift Boyle presented directly to the Bodleian encountered by me is a copy of the notorious Jesuit scholar Athanasius Kircher's *China illustrata* (Amsterdam, 1667), at N 1.14 Jur, (*olim* O 2.13 Jur), an indication that 'Jur' was a debased classification in the library by this date. This copy has been rebaked, but is otherwise in its original calf, again once chained from the upper front edge, blind tooled with double fillets and corner fleurons, a common English style. This book, one of the most handsome and exotic of the extravagant Kircher folios, has been inscribed *en gros* on its verso fly-leaf with 'Liber Biblioth. Bodleianæ / Ex dono Honoratissimi pariter et / Doctissimi viri / Dⁿⁱ Rob. Boyle'.⁴⁵



Athanasius Kircher, *China illustrata monumentis* (Amsterdam, 1667), N 1.14 Jur, with detail of inscription.

It was one of the two or three most celebrated sinological works of the age, and translated into several languages, although it perhaps looks better than it reads. When exactly Boyle presented this book is unknown,⁴⁶ but it must postdate Hyde's replacement of Lockety and may

⁴⁴ *Mineral Waters* (1685), Queen's College, Tunnel NN.b.410 copy 2, marked by Barlow as received 24 April 1685; *Concordantiæ Bibliorum Hebraicæ* (Basel, 1632), Upper Library 79.E.6, received 21 November 1659.

⁴⁵ N 1.14 Jur. also bears a bookseller's price-code on its title page.

⁴⁶ Such questions can occasionally be answered by locating the book under its original shelfmark in the curatorial handlists used in the period to verify the collections each year at the Visitation. In this case, we may note that in the original Jur shelving, where this volume was at O 2.13, the O 2 shelving ceased exactly at 13, making this the last book so shelved in this category in the period, usually a sign of late acquisition. But the

respond to Hyde's own oriental interests, and some further hints on both these issues will be supplied in the subsequent section.⁴⁷ But as the next text certainly arrived in Hyde's time and may be associated in subject with this one, we will pass on to Boyle's most striking gift to the library; it would be pleasant if the *China illustrata* and this next book arrived in one delivery.

VI. Chinese Printing, and Boyle Meets a Chinese Person

Boyle's final gift to the Bodleian so far detected is a contemporary Chinese calendar printed in Taiwan. This is now Sinica 57 (= *Summary Catalogue* 3997), but it has borne many prior shelfmarks, of which the earliest is MS Thurston 30, which tells us that it was shelved quite early on among the 1661 gifts of the London merchant William Thurston, who however donated only a few of the forty items once classified under his name.⁴⁸ Among these predominantly oriental 'manuscripts' are a number of Chinese printed books, including Thurston 28, given in 1659 by Octavian Pulleyn, the London bookseller, Thurston 29 and 32 to 38, given by Thurston himself, and Thurston 31, given by Henry Aldrich of Christ Church, sometime in the decade before 1682. What is interesting here is that Sinica 57/Thurston 30 and Sinica 58/Thurston 31 are duplicates of the same text, given independently to the library by Boyle and Aldrich. The text is a Chinese calendar for the twenty-fifth year of the Yongli emperor, the last in name of the Ming Emperors (1623-1662, reigned from 1646), i.e. for 1671 in the Gregorian calendar; reckoning by the Yongli Emperor's regnal years was still employed in the south long after his death, for although he had been ejected in the Qing coup of 1644, and was later executed, the 'Southern Ming' preserved allegiance to his line.⁴⁹ Samuel Pepys also owned a copy of the very same almanac, and there are further copies preserved in Clare and Emmanuel Colleges, Cambridge, St John's College, Cambridge (but this one for 1676 and marked as one of John Dacres' books, on whom see below), among Ashmole's papers in the Bodleian (given to Ashmole by the astrologer Henry Coley), and also two among Thomas Hyde's papers now in the British Library.⁵⁰ I suspect there was once a copy in the Merchant

previous original O 2.12 (it can now be found at M 3.3 Jur) is alas a folio of 1655 – a much later imprint would have been welcome – so all we can say is that the Kircher volume was received 'late' in the timeframe (see Lib. recs. e 306, a partial recopying of Lib. recs. e 289, for the 'Jur' handlists used in the later seventeenth century).

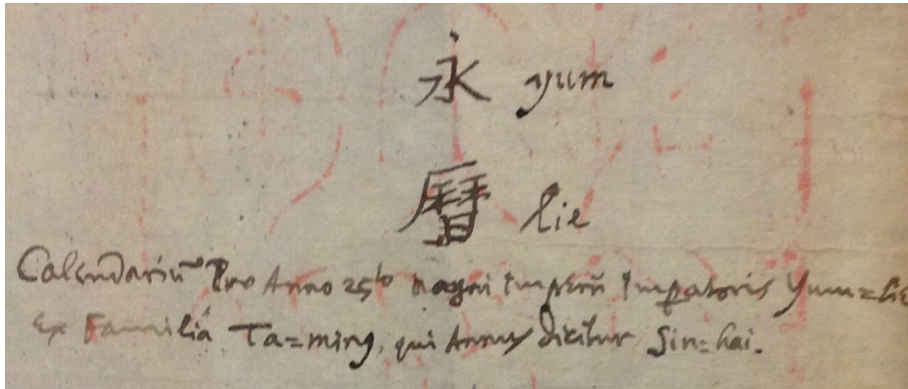
⁴⁷ I should also add that Boyle sent Hyde a copy of Andreas Cleyer's edition of the Polish Jesuit Michel Boym's *Specimen medicinae Sinicae* in 1683 (*BC*, vol. 5, p. 416, letter of Hyde to Boyle of 14 July 1683); I am unsure whether this was a personal gift or not. The sole current Bodleian copy is 4^o V 8 Med, which is probably the original one.

⁴⁸ For the Thurston classification and its problems, see Macray, *Annals*, pp. 128-29, and the note before SC 3968 in the *Summary Catalogue*. The shelf-mark of Sinica 58/Thurston 31, however, is probably in the hand of Thomas Hearne, which would suggest that it was only so shelved in the early eighteenth century.

⁴⁹ Lynne A. Struve, *The Southern Ming, 1644-1662* (New Haven and London: Yale University Press, 1984).

⁵⁰ Magdalene College, Cambridge, Pepys MS 1914. For the others, see David Helliwell *et al.*, 'Chinese Books in Europe in the Seventeenth Century' (<http://www.bodley.ox.ac.uk/users/djh/17thcent/17theu.htm>).

Taylor's School.⁵¹ I wonder, too, whether the 'china Almanack' in the hands of Daniel Fleming once of Queen's, Oxford, in 1677 was not also a further copy? Thomas Dixon desired it for Queen's from Fleming, and Fleming duly presented it to the college; but it seems subsequently to have disappeared.⁵² The Boyle copy itself is identified in the hand of Hyde as a 'Calendarium tempore ultimi Imperatoris Yum-lie ex Familiâ Ta-ming, qui Annus dicitur Sin-hai'.



Detail from MS Thurston 30 = Sinica 57, '永 yum 曆 lie' in the hand of Shen, with Hyde's Latin gloss below, translating as: 'Calendar for the 25th year of the great emperor Yum-lie (i.e. Yongle), of the family Ta-ming (i.e. Da Ming), which year is called 'Sin-hai' (i.e. 辛亥, xinhai, 'metal pig' = from 9 February 1671).

Why were there so many copies of such a rare and incongruous object in Restoration England? The story of this text and its arrival in Europe is a fascinating one.⁵³ Fifty copies of this calendar were presented by the 'King of Formosa' (i.e. Zheng Jing, 1642-81, the eldest son and heir of the warlord Guoxingye, known to the West as 'Coxinga') to the English merchant Ellis Crisp, who had been sent by John Dacres, the East India Company's agent in Bantam, with the pink Bantam and the sloop Pearl from the factory in Bantam in May 1670 in order to establish a factory in Formosa (modern Taiwan). The Pearl returned to Bantam in November; the Bantam in late January in the new year. A 'Coppie list of the King of Tywan's present to the Worshipfull Henry Dacres, Agent' dated 4 January 1671 records the fifty 'almanacks', and they were presumably taken back on the Bantam when it sailed for home later in January.⁵⁴ They must have been prospective printings, as Hyde's note that the calendars represent the year called 'Sin-hai' (i.e. 辛亥, *Xinhai*,

⁵¹ See *Librorum impressorum qui in bibliotheca Scholae Mercatorum Scissorum adservantur catalogus* (London, 1826), p. 6: 'Michael Davison gave a Chinese Kalendar', no date, but evidently Restoration.

⁵² J. R. Magrath, ed., *The Flemings in Oxford*, 3 vols. (Oxford: OHS, 1904-24), vol. 1, pp. 220, 224, 226-27, 130-31. In passing, Henry Fleming bought some Boyle texts in Oxford in 1682: *The Flemings in Oxford*, vol. 2, pp. 49, 252, 273-74.

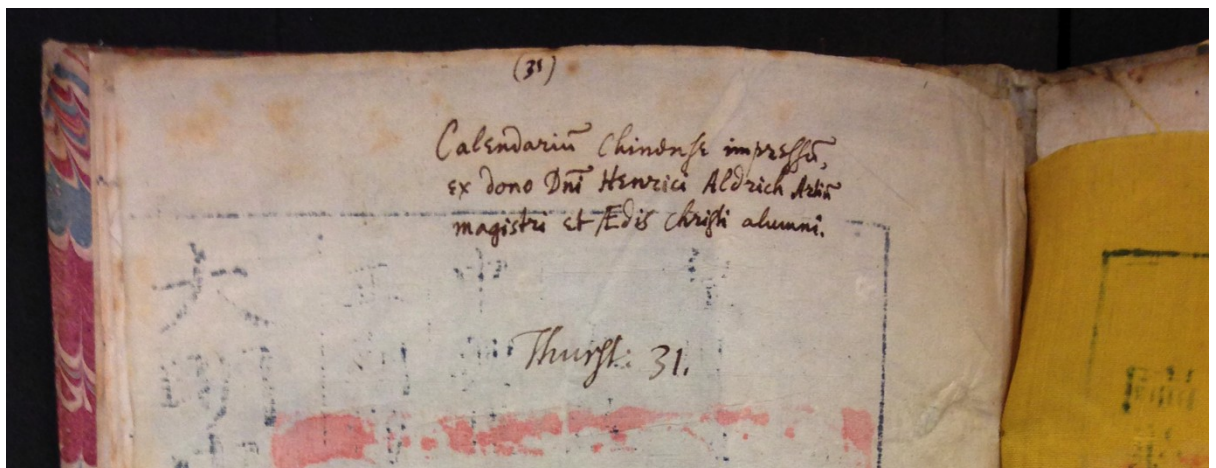
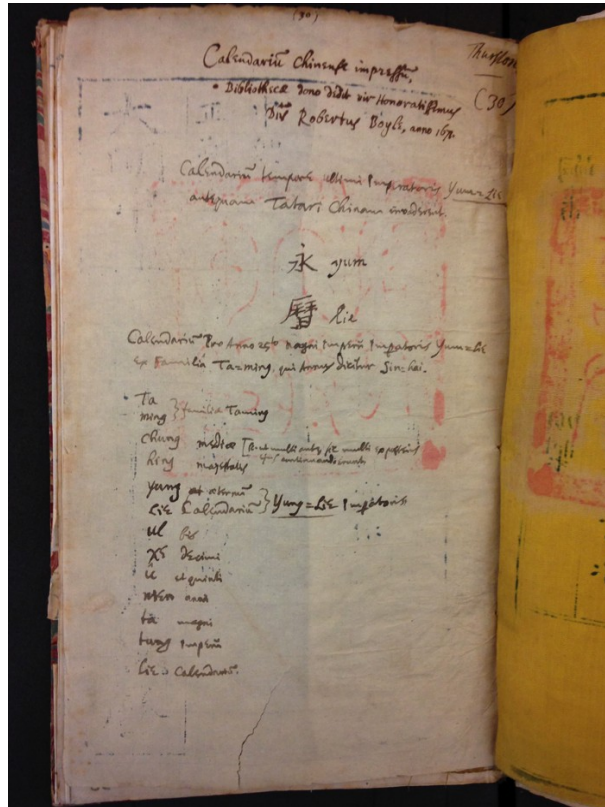
⁵³ See David Helliwell's post on these at <https://oldchinesebooks.wordpress.com/2012/01/02/southern-ming-calendars/>; and William Poole, 'The Letters of Shen Fuzong to Thomas Hyde, 1687-88', *electronic British Library Journal* (2015), article 9, p. 11, and further references there.

⁵⁴ *The English Factory in Taiwan 1670-1685* (National Taiwan University, 1995), p. 79, document 12.

metal pig) fixes the calendars to the Chinese year beginning 9 February 1671. This is why there are so many copies of this alien publication in English libraries.

Now the Aldrich and Boyle copies of course look very similar: both bear yellow silk covers with seals, although the Boyle copy is in fact bound upside-down with its cover therefore inverted and at the end of the Chinese text. Both also bear evidence that they were first interpreted in the Bodleian Library side-by-side. The Aldrich cover bears a title in thirteen characters written vertically down the left-hand side, then vocalised in Roman script in the hand of Shen Fuzong, the Chinese Christian convert who visited the Bodleian in the summer of 1687 and assisted Thomas Hyde in cataloguing the Chinese books. His romanisation reads *Ta mim chúm him yum lie ul xe u nien ta tum lie*, reflecting the usual Portuguese influence on such transliterations (thus ‘Ta mim’ is the dynastic marker ‘Da Ming’, i.e. ‘the Great Ming’). There is no corresponding inscription in the Boyle copy, but the latter does bear on its next page, this time in *Hyde’s* hand, a transcription of Shen’s vocalisation with a Latin translation added. Hyde adapts Shen’s vocalisation slightly: *Ta ming chung hing yung lie ul xe û nien ta tung lie*.⁵⁵ In other words, Shen and Hyde must have laid the two books out side by side; Shen then vocalised the title on one, explaining to Hyde in Latin what the characters meant; and Hyde then copied out the vocalisation with a consistent phonetic variation, adding the Latin gloss that Shen had spoken aloud. Shen also handled the Boyle copy, as he has written above Hyde’s vocalisation the two characters for the Yongli emperor’s name, again accompanied by romanised vocalisation.

⁵⁵ Hyde’s alternative vocalisation of ‘-m’ as ‘-ng’ is explained by a note in Martino Martini’s *Sinicae Historiae Decas Prima* (Mainz: Joannes Wagner, 1658), sg. A5r: ‘Multa quoque per *ng* scribo, quae alij per *m* expressere, uti Peking; ubi alij Pekim posuere. Nam haec litera *m* apud Sinas in fine syllabarum ore aperto, ut à Lusitanis efferrî solet: alioqui Sinica pronuntiatio haudquaquam exprimeretur, quae potiùs in *ng*, quàm *m* finitur.’ Hyde himself explained the matter again in his *Epistola de ponderibus et mensuris Serum seu Sinensium* (Oxford: Sheldonian Theatre, 1688), sg. A2r-v.



Inscriptions in the hands of Hyde and Shen from Sinica 57/Thurston 30, and Sinica 58/Thurston 31.

Boyle had been well informed about sinological materials for some time. In 1662, the mathematician John Wallis had written a letter on deaf-mute instruction to Boyle, in which he made the conventional claim that Chinese script represented not sounds but ‘Things and Notions’;⁵⁶ and in March 1666 Robert Hooke reported to Boyle that Christopher Wren had a ‘relation of china’ worth the reading. Hooke forwarded the book to Boyle, with the relevant pages turned down.⁵⁷ Four months later,

⁵⁶ Philip Beeley and Christoph J. Scriba, eds., *The Correspondence of John Wallis* (Oxford, 2003-), vol. 2, pp. 54-5 (14 March 1662); *BC*, vol. 2, p. 14.

⁵⁷ *BC*, vol. 3, p. 120. What this ‘relation’ was is uncertain: that of Semedo (translated into English by the future FRS Thomas Henshaw and published in 1655), or one of the

John Beale was telling Boyle that he wished the Jesuits would do some good for a change, and translate Chinese natural philosophy and medicine for western evaluation. In 1671 Boyle sent to Wallis a Chinese almanac which Wallis (in a seemingly unsent letter) confidently claimed to be able to decipher, drawing on the previous work of the Oxonian John Greaves and the Leiden mathematician and orientalist Jacobus Golius.⁵⁸ This almanac must be none other than the one under discussion here, and so we can add this piece of information to its history. And if Wallis did not return the book to Boyle, then presumably he handed it directly to Hyde.

Boyle subsequently retained and indeed increased his interest in Chinese matters. In 1677, for instance, Robert Hooke noted in his journal 'Dind with Boyle, saw the china alphabet, noe letter any resemblance to the rest, nor any syllable made up of the letter but distinct new characters' (23 June). Hooke would later publish an inventive paper on Chinese writing.⁵⁹ Hyde himself wrote to Boyle in 1683 on Chinese medicine, remarking on the younger Vossius' pugnacious attack on western medicine, and his inflated claims for Chinese pulse-medicine, based on Dutch Protestant and Polish Jesuit publications: 'We have indeed several stories of this nature', Hyde commented, 'but how true, I know not. But whatsoever empirics they are, I am sure they are no philosophers.' From the evidence of citations in his own works, Boyle owned several sinological works, including Henri de Feynes' *Voyage par terre depuis Paris jusques la Chine* (read in the edition of Paris, 1630; there was also an English edition of 1615), Martino Martini's *Atlas Chinensis* (Amsterdam, 1655), and Kircher's *China illustrata*, as well as several travel collections which contained oriental materials, such as those of Purchas and Thévenot.⁶⁰ His citation of Kircher comes in what has been termed 'Workdiary 22', headed 'Promiscuous Addenda to my severall Treatises' and dated by its editors to the late 1660s/early 1670s, and Boyle was presumably citing from the very copy that he then donated to the Bodleian, as we can now say that this gift arrived after he made these notes, which fall half-way through that manuscript.⁶¹

Boyle's contact with Chinese matters extended to an actual encounter with a Chinese person, the man encountered above and the same man who worked in the Bodleian with Hyde, and indeed it was Hyde who introduced Shen to Boyle.⁶² Shen Fuzong, a native of Nanjing

books of Martino Martini are the most obvious candidates.

⁵⁸ See Poole, 'Letters of Shen Fuzong', p. 11, where further references may be found.

⁵⁹ William Poole, 'Vossius, Hooke, and the early Royal Society's Use of Sinology', in *The Intellectual Consequences of Religious Heterodoxy 1600-1750*, ed. John Robertson and Sarah Mortimer (Leiden: Brill, 2012), pp. 135-53.

⁶⁰ Avramov *et al.*, *Boyle's Books*, pp. 12, 19, 22, 27, 32.

⁶¹ The Workdiaries are edited at: <http://www.livesandletters.ac.uk/wd/index.html>.

Boyle's citation from Kircher is at Workdiary 22-100. The note is not actually on China, however: it concerns a chameleon plant owned by the Roman botanist Franciscus Corvinus.

⁶² For more on this encounter, with an edition of the surviving Shen-Hyde letters, see Poole, 'Letters of Shen Fuzong to Thomas Hyde, 1687-88'. An important early recognition of Shen's work in the Bodleian is J. J. L. Duyvendak, 'An Old Chinese Fragment in the Bodleian', *Bodleian Library Record* 2 (1941-49), 245-47. Further recent

and a young Christian convert, had arrived in 1687 England in the company of a Jesuit delegation, and was soon enticed to Oxford by Hyde. There, as we have seen, he spent a few weeks in the summer talking to Hyde in Latin and providing rough descriptions of the Bodleian's Chinese books, until that point utterly mysterious objects, bar the odd explanatory Portuguese manuscript gloss. Shen left Oxford for London in late July bearing an English letter of introduction from Hyde to Boyle:

SIR, THE bearer hereof, the Chinese, hath been with us at *Oxford*, to make a Catalogue of our Chinese books, and to inform us about the subjects of them. We have some of *Confucius's* books; but most of what we have is physick [...] His Latin is a little imperfect; but it is well he hath any Latin; for before him there was never but one (who is dead) that understood any Latin. [...] You may make a shift to understand him, though he speaks but imperfectly.⁶³

Hyde treats Boyle as if he had heard of Shen – ‘the Chinese’ – but not met him. But Hyde seems to be incorrect here, because Boyle's ‘Workdiaries’ show that the natural philosopher had interviewed Shen almost three months previously, and hence it seems Boyle had been introduced to Shen, probably via Royal Society contacts, before Hyde in Oxford had heard of Shen's arrival. Boyle quizzed Shen solely about Chinese language – the number of its characters, its dialects, and the use of Mandarin. Shen said that he knew ten to twelve thousand characters, and spoke ‘some’ Mandarin.⁶⁴ Perhaps, then, Hyde initially heard about Shen from another, possibly continental, source, perhaps Melchisédech Thévenot, the French librarian, as he had long corresponded with Hyde, dealt with Shen in Paris, and the two librarians shared sinological interests. In as early as 1673 Hyde was thanking the Frenchman for the ‘*Confucii librum de Scientiis Sinensium*’.⁶⁵ This is was a translation into French by Thévenot of the Italian Jesuit Prospero Intorcetta's Latin version of the *Zhongyong* (‘Doctrine of the Mean’, one of the Four Books), the *Sinarum scientia politico-moralis* (Goa, 1667-69); Thévenot had just published it in the fourth volume of his *Relations de divers voyages curieux* (Paris, 1672), and evidently sent Hyde a copy.

While in Oxford, Shen worked hard for Hyde, and the Bodleian accounts for that year contain the entry ‘Item paid the Chinese for making catalogues to the China Bookes for his expences and Lodging’, £6, a considerable sum.⁶⁶ After his arrival, Shen worked through the one-hundred-odd Chinese books, scribing on their title-pages or fly-leaves in

accounts of Shen may be found in Noël Golvers, *Ferdinand Verbiest, S.J. (1623-1688) and the Chinese Heaven* (Leuven: Leuven University Press, 2003), pp. 196, 208-210, 301-3; Timothy Brook, *Mr. Selden's Map of China: The Spice Trade, a Lost Chart, and the South China Sea* (London: Profile Books, 2013), pp. 45-66; Robert K. Batchelor, *London: The Selden Map and the Making of a Global City, 1549-1689* (Chicago: Chicago University Press, 2014), pp. 1-3, 220-28.

⁶³ *BC*, vol. 6, p. 226, letter of 26 July 1687.

⁶⁴ Royal Society, Boyle Papers 21, p. 288, 4 May 1687 (Workdiary 36-69).

⁶⁵ MS Smith 11, pp. 15-[16]; Nicholas Dew, *Baroque Orientalism* (Oxford: OUP, 2009).

⁶⁶ Bodleian Library, Lib. recs. c. 28, for the year 1686/7.

three vertical lines from right to left a Chinese description of the book, a romanisation, and then a Latin gloss on the title. These can still be seen today, and the calendars we have discussed are examples. Hyde also compiled a manuscript 'Catalogus Librorum Chinensium in Archivo' (the *archiva* were the grill-covered cupboards adjacent to the librarians' studies, in which were stored particularly rare materials), numbering seventy volumes and followed by lists of the Chinese books in the Selden, Laud, and Thurston classifications. These must be the seventy, there anonymous, books of Hyde's earlier 1674 printed Bodleian catalogue, now at last given at least rough descriptions.⁶⁷ Shen and Hyde also sat down with a great deal of loose paper, and talked and wrote together in Latin and Chinese. This box was Hyde's thesaurus of Chinese knowledge, and from it he drew all of his future work on the language. It was acquired by Hans Sloane after Hyde's death, and is thus unfortunately not in the Bodleian today, but resides among the Sloane oriental MSS transferred to the oriental department of the British Museum in the late nineteenth century, MS Sloane Or. 853a.

In 1689, just after Shen's visit, Hyde forwarded to Boyle a little book of his on China, by context obviously the just-published *De mensuris et ponderibus Serum seu Sinensium*, his first serious piece of sinology and a work that relied not just on conventional Jesuit printed sources but also on Shen himself and some manuscript merchant vocabularies Hyde acquired from an English trader acquaintance, John Dacres, whom we have already heard mentioned.⁶⁸ (Indeed, Dacres presented Hyde with other materials essential for the latter's researches, including an edition of Psalms 1-50 in Malay, still in the collections today, bearing an inscription from Dacres to Hyde.⁶⁹) As Hyde tempted Boyle, 'I have by me upon severall other Heads much more of that China Learning, which (if any would be at the charge of printing) might perhaps not be ungratefull to the curious.'⁷⁰ These 'Heads' on 'China Learning' are, presumably Hyde's manuscript 'Adversaria Chinensia', 'excerpted from the writing and conversation of a native Chinaman', also contained in MS Sloane Or. 853a.

It is a pity that the wealthy Boyle did not take the hint and finance publication of this signal collection. If he had, then he would have been able to add Chinese to the list of the more recondite languages the scholarship of which he supported, usually for evangelical ends, throughout his adult life – Algonquian, Arabic, Irish, Lithuanian, Malay, and Turkish.⁷¹ It seems likely, therefore, that Boyle's interest in

⁶⁷ The list is among British Library, MS Sloane Or. 853a, loose papers in box. This is the source of the descriptions eventually published in Edward Bernard's *Catalogi Manuscriptorum Angliæ et Hiberniæ* (Oxford, 1697/[8]).

⁶⁸ Hyde, *De mensuris*, sg. B2r.

⁶⁹ Now Marshall 201; many of the Marshall books (chiefly works of oriental and Saxon scholarship), including this one, were moved there from other locations, and are therefore not from the 1685 bequest of Thomas Marshall himself.

⁷⁰ BC, vol. 6, p. 286 (letter of 23 February 1689).

⁷¹ These projects are well-known, but among Bodleian records note that the cost to Boyle of the translation by Edward Pococke of Grotius' *De veritate religionis Christianæ* into Arabic is preserved in Bodleian, MS Rawl. D 1188, fol. 11r-v, where it is recorded that Boyle paid £50 and then a further £20 towards the publication. Madan, *Oxford*

specifically Chinese language was prompted by further evangelical hopes: to carry (Protestant) Christianity to a country so far mainly evangelised by Roman Catholics, chiefly Jesuits. This would have continued the trend of Heurnius, he of the Malay Gospels, and one of the earliest specifically Protestant evangelists in the Far East who devoted himself to missionary linguistics in both Malay and Chinese; important Heurnius Chinese manuscripts arrived in the Bodleian in the early eighteenth century as part of the bequest of Archbishop Marsh.⁷² But Boyle and Shen died in the same year, the latter in a shipboard epidemic off the coast of Mozambique; Shen never made it home, and Boyle did not in the event fund Hyde's publication of his manuscripts.⁷³

VII. The Accession of Boyle's Own Works

So far I have simply addressed books that Boyle gave directly to the Bodleian Library, and also some of his own books *qua* gifts or presentation copies to the Bodleian from his or other hands, or from Boyle to Barlow, and thence after the latter's death to the Bodleian. But there is of course a great number of Boyle books not associated in provenance with Barlow or indeed with Boyle that found their way into the Bodleian in this period. Such books in 'Art' or 'Med' classifications were received usually through more mundane processes: from the Stationers in London, and in one case at least through the gifts of another donor. The evidence here is patchy, but it is worth rehearsing. The Bodleian maintained a Benefactors' Book, of course, and in this we found the early donations of Boyle himself. We also find George Ent, son of the famous physician of that name, presenting (in a not very large shipment of donations) a copy of Boyle's *Experiments and Considerations Touching Colours* (London, 1664), some time in or shortly after 1668; it is now 8° C 20 Art. We can be sure that this is Ent's own copy because it bears his bookplate with his arms and the anagrammatic motto 'Genio Surget'.⁷⁴ Less easy to track are the books that the London Stationers

Books, no. 2423 describes Samuel Bogusław Chyliński's *An Account of the Translation of the Bible into the Lithuanian Tongue* (Oxford, 1659) and the chronology of Chyliński in Oxford; Boyle's role in the enterprise can be tracked through his correspondence. For the Turkish project, see now Noel Malcolm, 'Comenius, Boyle, Oldenburg and the Translation of the Bible into Turkish', *Church History and Religious Culture* 87 (2007), 327-62; and for the rest see Hunter, *Boyle*, pp. 123 (Arabic), 131 (Algonquian), 197-99 (Irish), and further references there; also Hunter, *Boyle Studies*, pp. 90-98 (Irish).

⁷² There are two notable Heurnius Chinese MSS in the Bodleian: MSS Marsh 456, 678. On these and their provenance see Koos Kuiper, 'The earliest monument of Dutch Sinological studies', *Quaerendo* 35 (2005), 109-39; Poole, 'Letters of Shen Fuzong', p. 8.

⁷³ Boyle supplied Hyde with some specifically oriental information that Hyde later printed, for Boyle told Hyde about ancient bombards found in Pegu, and Hyde included the information in his discussion of gunpowder in his *De ludis orientalibus* (Oxford, 1694), 'Historia Shahiludii', p. 177.

⁷⁴ Lib. recs. b 903, p. 409. For the connections of the Ents with the Bodleian, see William Poole, 'John Aubrey, the two George Ents, and the "Paduan" *Laureae Apollinari*', *Bodleian Library Record* 27 (2014), 88-104. Ent's blazon is sable between three hawk-bells a chevron or; the crest a falcon with bells. Ent Junior then bequeathed a substantial collection of books to the Royal Society's fledgling library: they are listed in [William Perry], *Bibliotheca Norfolciana* (London: Richard Chiswell, 1681), pp. 154-67. These included 'Boyle on the Scriptures' (1661).

were supposed to be sending to the Bodleian. No accessions register appears to survive from the period of Lockett's librarianship. But Hyde maintained such a register, organised alphabetically and covering 1673-80, and then with later accessions entered chronologically as they arrived throughout the first half of the 1680s. This is a fascinating and underexploited administrative manuscript, because Hyde records a good deal of information about specific shipments of gifts as well as books received from the Stationers, most spectacularly a shipment of Swedish books, presented to Hyde by a visiting scholar from Uppsala, anxious to advertise the scholarly ascendancy of his nation.⁷⁵ Hyde also records more local movements, such as books sent to the binder, or moved from the librarian's office out onto the open shelves. Here too we may observe the accession of fifteen Boyle titles from 1673 to 1680, and at least four more arrived in the early 1680s. Many of these are still located where Hyde placed them; one indeed is Ent's donation of *Colours*, and the position of Hyde's entry suggests that this book, published in 1664, was only shelved in 1674.⁷⁶ Where a Boyle copy that was in the Bodleian can no longer be found today, we should remember that Hyde's librarianship was marked by his decisive action to weed out and sell duplicates, a policy more notoriously pursued by his successor John Hudson (nicknamed 'the bookseller'), who had tables of duplicates on sale in what is now the Upper Reading Room.⁷⁷ For the period after 1690 another draft accessions register survives, and there we can see that *The Christian Virtuoso* (1690/1), with its adjunct essays 'Reflections on a Theological Distinction' and 'Greatness of Mind', was sent to the Bodleian from London in 1692, and placed in 8° D 16 Med.⁷⁸ A shipment from the Stationers received in the library on 9 February 1692[/3] contained Boyle's recent *General History of the Air* (1692), shelved at 8° B 172 Art, where it still is, and *Medicina Hydrostatica* came in 1694, despite having been published four years previously, shelved at 8° N 63 Med, still the second item in that volume. At the same time Boyle's *Medicinal Experiments; or, A Collection of Choice and Safe Remedies* arrived, in three volumes (London, 1692-4), shelved at 8° N 64 Med, and once again

⁷⁵ William Poole and Kelsey Jackson Williams, 'A Swede in Restoration Oxford: Gothic Patriots, Swedish Books, English Scholars', *Lias* 39 (2012), 1-66.

⁷⁶ Lib. recs. c 853, fols. 4r, 4v, 5r, 6r, 123r, 126r, where shelf-marks are also supplied: Hyde placed most of the new books on the Arts shelving. Hyde always refers to Boyle simply as 'Mr Boyle' - he was too celebrated to require a first name.

⁷⁷ Hyde was paid £10 in 1677 for his work on the duplicate stock (Lib. recs. c 29, under 1677). The visitor Zacharias Conrad Von Uffenbach was rather rude about the practice (the Oxford proportion of his diary has been edited as Zacharias Conrad Von Uffenbach, *Oxford in 1710*, ed. W. H. and W. J. C. Quarrell (Oxford: Basil Blackwell, 1928)), but I can reveal that a stray note in Hyde's hand amongst the library records (Lib. recs. c 857, fol. 1v) lists four books Uffenbach bought for 15s from the duplicate tables, so he was not so unimpressed after all. There were also extensive duplicate sales in the nineteenth century.

⁷⁸ As we saw above, the copy of this work now at 8° F 20(2) Linc indeed bears the cancelled shelf-mark 8° D 16 Med.

remaining at that location.⁷⁹ So we know exactly by what means and when these specific titles appeared in the library.

VIII. The Ashmolean Boyles

The library of the Ashmolean Museum (est. 1683) lies on the periphery of this discussion, as I have concentrated on Boyle's books as they were actually handled in the Bodleian in his own time and in the decade or so immediately following his death; and of course the Ashmolean Library only came to the Bodleian in 1860.⁸⁰ But as this library, like that of the Savilian professors,⁸¹ was adjacent to the Bodleian Library, and as Boyle himself was personally connected to many of the Ashmolean's earliest habitués, the many Boyle titles in that library deserve some attention too. The Ashmolean Museum, indeed, housed not one book collection but two: the general library of natural history and philosophy on the upper floor, and a separate, smaller 'bibliotheca chymica' in the ground floor laboratory, itself said by one visitor to be designed by Boyle.⁸² (The operational catalogue of the library from the 1690s was the copy of Hyde's Bodleian catalogue inherited from Anthony Wood along with his library. This was then marked up and maintained by Edward Lhuyd to show the Ashmolean's holdings.⁸³) There were two Boyle titles in the chymical library, Boyle's *Sceptical Chymist* (2nd ed. of 1680, now Ashm. C 43), and the *Icy Noctiluca* (1682, now Ashm. 1336); their provenance is confirmed by the inscriptions on the title-pages of both volumes (as discussed below, the latter volume was presented by Richard Mostyn of Christ Church).

⁷⁹ Lib. recs. b. 904, pp. 2, 12, 23, 24. These lists copy those in the opening sections of Lib. recs. b. 158 ('Registrum B'), a register of Stationers' copies and private donations 1692-1723, but the advantage of Lib. recs. b. 904 is that shelf-marks have been added.

⁸⁰ Edmund Craster, *History of the Bodleian Library 1845-1945* (Oxford: The Bodleian Library, 1981), pp. 64-9. The last catalogue of the Ashmole books and MSS made when they still stood in the Ashmolean is Lib. recs. d. 934-35, compiled by William Kirtland, Underkeeper of the Museum, and dated 1839.

⁸¹ A collection unsurprisingly bare of Boyle books; the closest the Savilian professors had was a copy of Robert Hooke's *An Attempt for the Explication of the Phænomena observable in an experiment published by ... Robert Boyle* (London, 1661), Savile I 17 (4).

⁸² R. T. Gunter, 'The Ashmole Printed Books', *Bodleian Quarterly Record* 6 (1930), 193-95. There are in fact forty-three Lister books in the general twin Ashmole series, and there are thirty-four volumes once belonging to the second Keeper, Edward Lhuyd, as well. 27 volumes from the Bibliotheca Chymica survive in the Ashmole sequences too; they have been listed with inscriptions by Gunther in 'The Chemical Library of the University', *Bodleian Quarterly Record* 6 (1930), 201-3. That Boyle himself designed the Officina Chymica was claimed by Uffenbach, *Oxford in 1710*, pp. 37-8.

⁸³ See Nicholas K. Kiessling, *The Library of Anthony Wood* (Oxford: OBS, 2002), p. xlv. When the Ashmolean's books came to the Bodleian these two volumes were placed not in the Ashmole but in the library records sequence: they are now Lib. recs. b 466, 467. The corrections to some of the printed entries for oriental books are in Hyde's own hand.

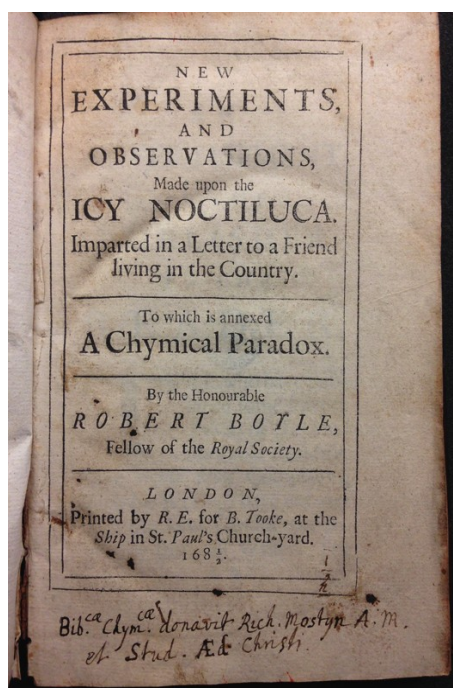


Figure X: *Icy Noctiluca* (1682), donated to the Bibliotheca Chymica of the Ashmolean Museum by Richard Mostyn of Christ Church (Ashm. 1336)

The main Ashmole sequence consists of two components: a numerical sequence, in which both manuscripts and printed books are included; and an alphabetic-numerical sequence (A-H), in which the majority of Boyle's books is located, almost all of them in C.

How were these collections built up? To judge by surviving inscriptions, the chymical library accrued books largely through individual donations. The upper library, a far larger collection, achieved its bulk chiefly from the block donations of Martin Lister, John Aubrey, Ashmole himself, and the bequest of Anthony Wood in 1695. It is interesting to note, however, that the bibliovoracious Wood – especially when it came to Oxford imprints by Oxford men – collected not a single Boyle title.⁸⁴ This is especially surprising considering Wood enrolled for a chemistry course at Oxford in 1663, where among his fellow students sat John Locke, 'prating and troublesome', who annoyed the duller Wood with all his impertinent questions.⁸⁵ Wood did, however, collect a few elegies on Boyle, now in his collection of elegies at Wood 429. In 1689 John Aubrey likewise donated books, portraits, coins, and antiquities to the Museum, but he too offered no Boyle books. Yet Aubrey knew Boyle, must at some stage in his life have owned several Boyle imprints, and certainly recorded a recommendation of Boyle on one of his own books now among the Ashmolean holdings.⁸⁶ The real influx came from the

⁸⁴ Typically, however, Wood acquired the only printed bibliography of Boyle! – *A Catalogue of the Philosophical Books and Tracts, written by . . . Robert Boyle* (London, 1692), Wood 91(6). See Kiessling, *Library of Anthony Wood*, no. 1456.

⁸⁵ Anthony Wood, *The Life of Anthony Wood in his own words*, ed. Nicholas K. Kiessling (Oxford: Bodleian Library, 2009), p. 93.

⁸⁶ Arthur MacGregor et al., eds., *Manuscript Catalogues of the Early Museum Collections 1683-1886*, 2 vols. (Oxford: Archaeopress, 2000, 2006), vol. 1, p. 7. Aubrey

physician and naturalist Martin Lister.⁸⁷ Lister gave an important collection of shells, minerals, antiquities, and also books and manuscripts to the museum in 1683, the year of its official opening, and his book gifts were roughly the size of the rest of the library put together.⁸⁸ Yet the 'Lister' books contain only one, unmarked, Boyle title, the *Curiosities in Chymistry* of 1691 (Lister A 254), really a piece of Boyle pseudepigrapha (by his former assistant, Hugh Greg). Turning to the Ashmole alphabetic series books, however, we find that many Lister titles have migrated thither, including genuine Boyle books. Indeed, so many of the Boyle titles in Ashmole C have been signed and annotated by Lister that we can conjecture that Lister was donating large numbers of books from his own working library; he had not simply assembled a parcel of newly-acquired books solely for the purpose of benefaction. Happily, this conjecture may be confirmed by a 1693 letter of Lister to the Keeper, Edward Lhuys, in which he states that he is sending Lhuys *all* the Boyle imprints from his own library.⁸⁹ Thus Ashmole C 1 (*Of the Reconcilableness of Specifick Medicines to the Corpuscular Philosophy*) (London, 1685) is marked on the front paste-down 'For D^r Lister in the Palace yard', price 2s. C 38 (*Memoirs for the Natural History Of Humane Blood* (London, 1683/4)) is more formally inscribed 'Bibliothecae Ashmoleanae dedit Martinus Lister M.D.'⁹⁰ C 36 (*Some Considerations, i.e. Usefulness, II, sect. 2* (Oxford, 1671)) is signed 'Martin Lister cost 4^s' on its title-page; and C 45 (*Certain*

has marked Ashm. 1551, a copy of William Davison, *Philosophia pyrotechnica* (1641; acquired 1656 for 4s 6d): 'This booke sc. his Cursus Chymiatricus was recommended to me by Mr Robert Boyle, as the best then extant: but he advised me not to read the Philosophia Pyrotechnica.' There are no Boyle books among Aubrey's many gifts to the library of the Royal Society, nor among those presented by Aubrey to Gloucester Hall, now Worcester College.

⁸⁷ R. W. T. Gunther, 'The Ashmole Printed Books', *BQR* 6 (1930), 193-95. For Lister see now the biography by Anna Marie Roos, *Web of Nature: Martin Lister (1639-1712), the first arachnologist* (Leiden: Brill, 2011), esp. pp. 260-1, 266-74 for his engagement with the Ashmolean. The inscription recording the gifts of Ashmole, Lister, and John Aubrey can still be seen in the Old Ashmolean/The Museum of the History of Science, above the door to the old library, behind you on your right as you enter the top gallery of the modern museum.

⁸⁸ MacGregor *et al*, *Early Museum Collections*, vol. 1, p. 5. It seems that Lister independently gave copies of his own works to the Bodleian too, as there is a note to that effect dated 17 November 1702 in Thomas Hearne's hand in Lib. recs. d. 423, p. 53, although it has then been cancelled. This note might just explain a little pocket of Boyle and Lister titles running from 8° N 48-52 Med: this was precisely the kind of location where recently acquired octavos were shelved at the time, and so perhaps these books represent Lister's gift. Certainly the Lister volumes at 4° L 10 Med and 4° D 12 Med were presented directly to the Bodleian by Lister, as they bear presentation notes to that effect in his hand. The receipt of these books was noted by Hyde c. 1682 in his draft register, Lib. recs. c. 853, fol. 124r.

⁸⁹ MS Ashm. 1816, fol. 96r, Easter Eve, 1693. There is a surviving booklist for Lister, headed 'Lister's Study' (MS Lister 5, fols. 133r-37v), but not including any Boyle titles. This is hardly surprising, though, as the list appears to be restricted to medical works and numbers only just over two hundred books. There is a manuscript list of some later book donations of Lister in MS Ashm. 1819, item 3, dated 3 February and then 24 July 1708; evidently all his Boyle books came earlier.

⁹⁰ That both of these books are signed by Lister as an MD shows that they were presented after that degree was bestowed upon him in 1684, an honour in part prompted by his donations to the Ashmolean the previous year.

Physiological Essays (2nd edn., London, 1669)) is similarly marked 'Martin Lister cost 5^s 4^d'. C 7 (*Sceptical Chymist* (London, 1661)) is signed at its conclusion on p. 441 'Martin Lister'. We can go further: some of the signed Lister books bear pages of notes in their end-papers, keyed to pages (e.g. C 7, 36). These are in Lister's hand. We may be confident, therefore, that adjacent Boyle titles with similar notes in the same hand came from Lister too (C 4 (*Essays of Strange Subtlety of Effluvioms* (London, 1673)); A 2 (*Origine of Formes and Qualities* (Oxford, 1666)), likewise heavily annotated by Lister). Many of these books have marbled fore-edges and bear an inked 'B' on the fore-edge, and often with a biliteral mark on the bottom edge, tight against the endband (C 2, 6, 8, 34, 37, 46, 49).⁹¹ But certainty about the extent of Boyle books of this class is frustrated here because some of the Boyle titles in this vicinity in Ashmole have had the upper right-hand corner of a front fly-leaf carefully ripped out (C 42, 55, 48), and this points to deliberate excision of provenance evidence; in C 37 notes once present in the end-papers have also been removed. But enough has been said to make it clear that, as Robert Gunther first noted, many Lister volumes migrated out of the 'Lister' and into the 'Ashmole' books - and that a sizeable number of Boyle titles are among them. This does raise an interesting question: given that the Lister books now contain only one, spurious Boyle title, and yet among the Ashmole books there are thirty-six alone in the 'C' class, is this not clear evidence that *specifically* Boyle titles were abstracted from the Lister bequest and shelved together?⁹² Or, as we know that Lister planned to give all his Boyle imprints to the new museum, perhaps he sent them all in a unique shipment, and they were shelved thus. Such was the reputation of Boyle.

There is perhaps no such general narrative that we can apply to many other Ashmole Boyle books, but it is worth recording that many bear prices (C 36, 41, 48, 49, 51, 52, 53, 54); one is profusely annotated by an unknown hand, with an amusing drawing on the first front fly-leaf (C 52, with the puzzling earlier shelf-mark 'C. m. m'); one bears the Ashmolean's own (otherwise untraced by me) bookplate (C 57);⁹³ and a few were obviously acquired on the second-hand market. In this last

⁹¹ It is tempting to speculate that these fore-edge markings represent Lister's own shelfmarks. But this is disproved by the appearance of the 'B' mark on non-Lister books, e.g. Ashm. 1336, originally a chymical library book, Boyle's *Icy Noctiluca* (London, 1681/2), donated by Richard Mostyn, Student of Christ Church (he took his MA in 1680); It must therefore represent an earlier organisation of at least this section of the Ashmole books, as the 1839 Ashmolean manuscript catalogue shows that the modern Bodleian sequence is effectively an immobilisation of the last Ashmolean sequence.

⁹² For this shelving, see Lib. recs. b 466, the first volume of the Ashmolean's interleaved Hyde, on the interleaf opposite p. 104, where Boyle's books have all been entered in manuscript, in three hands. One can see the '[press] A [shelf] C' filling up. Gunther, 'Ashmole Printed Books', p. 193, stated in 1930 that he found thirty-seven Lister books in the Ashmole series - further corroboration that all or possibly all bar one of the migrations were Boyle books. (A further six Lister books, according to Gunther, were moved into the Ashmole MSS series, a separate classification from the Ashmole printed books.)

⁹³ It is not listed among the Oxford bookplates in the third volume of E. R. J. G. Howe, *The Franks Bequest* (London, 1903, 1904), 3 vols. It is in 'Bookpile' style, favoured in the late seventeenth and eighteenth centuries.

category stand C 51 (*Short Memoirs for the Natural Experimental History of Mineral Waters* (London, 1684/5)), which bears a heavily deleted signature which after a long stare can be reconstructed as 'Tho: Dickenson Esq'; and C 60 (*Of the High Veneration Man's Intellect Owes to God* (London, 1685)), marked 'Mr Abercrombie of St M Hall', heavily annotated, and at some point costing 1s 6d.⁹⁴

Conclusion

The Bodleian Library, we have seen, holds a dozen or so Boyle titles in the Arts category, all probably received soon after publication, and mostly still there. There are seven titles in the 'Med' shelves, and two in 'Jur', both debased shelf-marks by the later seventeenth century; and there are a further four titles in 'Th', of which only one is really a theological work. Specific copies known to have arrived but not there today most probably left the library as a result of duplicate sales, but it can be difficult to tell when a book has simply been moved rather than deduplicated. Nevertheless, by the end of our period the Bodleian held most if not all of Boyle's separate publications. And by the end of the seventeenth century not much further afield from the Bodleian there were many more Boyle books in Oxonian institutional ownership too. The Ashmolean Museum, we have now seen, possessed around fifty Boyle titles.⁹⁵ (In contrast, as noted, the Savilian professors' impressive library, housed in the Tower of the Five Orders, was utterly barren of Boyle titles, geometry and astronomy lying outside Boyle's core interests.) The colleges will have their own different stories to tell, but as one example the *bibliothecarius* in New College in the early Restoration was none other than Boyle's editor and collaborator Robert Sharrock, and Sharrock used pecuniary donations to the college library to buy Boyle's *Some Considerations Touching the Usefulness of Experimentall Naturall Philosophy* (Oxford, 1663),⁹⁶ the preface to which is signed by Sharrock himself as 'Publisher'; as well as the *New Experiments Physico-Mechanical* in the second edition of 1662, with the defence against Hobbes and Linus. Sharrock may, I suspect, have therefore been remunerated himself in these transactions,⁹⁷ but Sharrock subsequently

⁹⁴ If this Dickenson is an Oxonian, it is probably the Thomas who matriculated at Pembroke in 1690; Abercrombie, a Scotsman from his name, is not listed in Wood or Foster, assuming that 'M Hall' is indeed a reference to St Mary Hall, one of the major Oxford halls in the period, connected to, but partially independent from, Oriel College. He is presumably not the David Abercrombie who was Boyle's protégé, as the latter was a lapsed Jesuit who had settled in London (Davis, 'Anonymous Works of Robert Boyle', pp. 624-26).

⁹⁵ The current Ashmolean shelf-mark contains this number of Boyle publications 1661-1703, a few bound together.

⁹⁶ As it is a local book, waste fragments of it can be found in the binding of some college books, e.g. Gassendi, *Opera* (Lyon, 1658), in the copy in St Edmund Hall Library, Old Library, Fol. E 5(2), vols. 3-4, given to the college in 1665; and Walter Charleton, *Chorea Gigantum* (London, 1663), in the copy in New College Library, BT1.131.16(1), given to the college by Sharrock himself in 1672.

⁹⁷ New College, NCA 4218 (the college 'Long Book' accounts for 1664) shows that the monies for the Boyle books were laid out by the college and then declared to be a debt to the college by the donor, James Sacheverell. Sacheverell's yet-to-be received cash also paid for the (much more expensive) complete works of Pierre Gassendi, as well as

donated many Boyle imprints to his college library under his own name in 1672, and he was not the only donor of specifically Boyle books in that specific college in the later century.⁹⁸ Indeed, Boyle himself may have signed at least one of the New College Boyles, as the 1661 *Nova Experimenta* currently in the collections bears his signature in the back end-papers; this copy presumably arrived through Sharrock.⁹⁹ To that college, too, came a large number of Boyle titles late in the next century, as the gift of Martin Wall, and this is why New College holds in total more Boyle titles than any other college.¹⁰⁰ Where college libraries were happy to lend, we can also find in the few surviving registers examples of Boyle texts being taken from the college library to a fellow's rooms: in Balliol, thus, in November of 1693, one member borrowed Nicolas Lemery's *Course of Chymistry* along with Boyle's *Sceptical Chymist*, and one wonders therefore if these two books were not borrowed together with actual experimentation in mind.¹⁰¹ Boyle books were even stolen, for in the later eighteenth century we hear of William Mills, who carried off a large number of books from Trinity College's undergraduate library in 1785, including works by Boyle.¹⁰² This, however, is not an exhaustive study of Boyle's books in institutional hands in Oxford by the early eighteenth century, and my main task is complete: in the two libraries of the new Ashmolean Museum, in at least some of the college libraries, and overall in Bodley's Public Library itself, Boyle was indeed someone of

some rather conservative texts in scholastic theology.

⁹⁸ New College, Benefactors' Book, pp. 116 (Sharrock's six titles), 132 (Thomas Terry donates *Human Blood* in 1688), 139 (William Rolfe donates twelve separate titles, c. 1690); and see more generally William Poole, 'Book Economy in New College, Oxford, in the Later Seventeenth Century', *History of Universities* 25 (2010), 56-137. Doubtless similar stories can be extracted from other college benefactors' registers: by the late seventeenth century, almost all the foundations had commenced such a register, usually with retrospective entries; and some of the registers for the halls survive too, e.g. that for the important library of Magdalen Hall, now held in Hertford College. For these, see Paul Morgan, *Oxford Libraries Outside the Bodleian*, 2nd ed. (Oxford: Bodleian Library, 1980); Jonathan Bengtson, 'Benefaction Registers in Oxford Libraries', *Library History* 16 (2000), 143-52 (although Bengtson overlooked the New College register). But these may produce negatives too: the earliest draft catalogue of and list of benefactors to the library of St Edmund's Hall, for instance, compiled by Thomas Hearne in around 1699, shows the presence of some of the books of the new philosophy, e.g. Bacon, Digby, Galileo, Gassendi, Hooke, and a number of modern medical works, but no Descartes, Boyle, or Newton (MS Rawl. D 389, fols. 13r-47v). The first Boyle title to enter Magdalen Library itself may have been from the bequest of John Warner, Bishop of Rochester (d. 1666, will proved 1667): Magdalen College MS 777 (library benefactors book), fols. 36r-38r, including on fol. 38r Boyle's 'Tracts of Air'.

⁹⁹ New College BT 3.247.18, inscription noted by Naomi van Loo, 2011. The title is present in Sharrock's list of benefactions. There is, however, a question mark over the authenticity of the signature, which may have been imitated from Boyle by Sharrock.

¹⁰⁰ For Wall see *Early Science in Oxford*, vol. 11, pp. 140-41; his donations can be located by searching Boyle books with 'Wall' in the copy-specific notes on SOLO. His brother John, also of Merton, has signed at least one other college book, being BT 3.247.17, previously owned by Conyers Purshall, presumably the early eighteenth-century man of that name who proposed solving the problem of longitude by towing an odometer.

¹⁰¹ Balliol College Library, Lending Register 1693-1713.

¹⁰² L. S. Sutherland and L. G. Mitchell, eds., *The History of the University of Oxford*, vol. 5: *The Eighteenth Century* (Oxford, 1986), pp. 590, 750-51.

whom it could be said by around 1700 that the enthusiast could read 'All M^r Boyl's pieces'.