CHAPTER FIVE

ALCHEMICAL POETRY AND ACADEMIA: MANUSCRIPTS AS CHRONICLES OF SCHOLARLY ENQUIRY

Why do readers of *alchemica* think what they think, and how do they think about it? Various ways of structuring thought, and techniques for the acquisition and organisation of knowledge on the page and in a collection, were taught to and acquired by generations of alchemical practitioners and scholars throughout the history of the corpus around the “Verses upon the Elixir”. The underlying discourse communities, ranging from craftsmen to scholars, constructed and conceptualised their manuscripts and collections in a mixture of method and personalisation which allows the discovery of the ways in which they understood books and nature.

The final parts of this book concern essentially early modern learned approaches to the corpus around the “Verses” and the materiality of the organisation of knowledge. This chapter focuses on a copy of the “Verses upon the Elixir” in a sixteenth-century manuscript (TCC MS R.14.56) which has been kept in a Cambridge college since the early seventeenth century. The early modern manuscript page and the academic library, two physically limited spaces of astonishing internal complexity, determined the history of this codex. The first part of this chapter will put the tail ends of the manuscript’s history into perspective, i.e. its origins and final storage in Trinity College Library, which has determined its institutional context and reception for the past four centuries. It will then introduce relevant theoretical background, especially sixteenth-century developments in book culture.¹ Finally, it will show how, through scholars’ avid use of the Trinity manuscript, this particular copy of the “Verses upon the Elixir” graduated from being a plain recipe text to a means of communication.²

¹ This will also be relevant to the context of Chapter 6 below.

² This chapter is based on materials first used for the compilation of the following article: Timmermann, “Sixteenth-Century Manuscript”.

1. TRINITY COLLEGE CAMBRIDGE MS R.14.56 AND THE LIBRARIES OF SIXTEENTH-CENTURY CAMBRIDGE

In 1637, Thomas Whalley, vice-master of Trinity College Cambridge, died. His connection with the College had started with his matriculation as a student fifty-three years earlier, and, a cleric, priest, lover of books and probably a bachelor, he had decided to consider the College's Library in his will. His bequest included the handsome sum of £120 for the acquisition of printed books, as well as ten manuscripts he had acquired for his own studies and delectation.³ Among the latter was an alchemical manuscript (now TCC MS R.14.56, henceforth the 'Trinity Compendium'), which reached its final destination on the College Library's shelves. Even then, only a few decades after its original compilation, the codex showed signs of heavy use in the form of a multitude of annotations, which led early twentieth-century bibliographer M.R. James to describe it as "a very ugly shabby book".⁴ The turbulent history of the Trinity Compendium was, however, much more fascinating than James knew.

The Trinity Compendium is a digest of late sixteenth-century alchemical knowledge compiled from several manuscripts. Large parts of the volume were written by the same person, in a reasonably neat secretary hand and over a period of time, as inks and the quality of the script and paper vary.⁵ Other parts, written in different hands, appear to date from the same period. Unfortunately, the early history of the Trinity Compendium is rather confused.⁶ It will suffice to note here that the volume represents a personalised collection of *alchemica* interleaved with related parts of other contemporary alchemical manuscripts.⁷

³ £120 in 1637 represents the equivalent of £15,000 of present-day currency (cp. *Measuring Worth*). Gaskell, *Trinity College Library*, 83 and 90.

⁴ James, *Western Manuscripts*, 2: 341, entry 925. This remark can be put into perspective with the help of the following study: Sherman, "Soiled".

⁵ Sherman proposes that an analysis of ink quality may be as helpful in the dating of manuscripts as watermarks for that of paper stocks: Sherman, *John Dee*, 223.

⁶ Diverging systems of page numbers, the presence of some smaller leaves bound into the volume at ff. 49–52 and the loss of fifty-one folios in a middle section attest to the fact that its quires were not always arranged in the current order. Due to the absence of the primary copyist's name or a clearly identifiable, extant exemplar (see stemma below) it is difficult to determine a more precise time of composition than the long mid-sixteenth century, or to pinpoint when the volume assumed its current collation.

⁷ Since its assembly into its current state happened at a relatively early date (most likely around the turn of the seventeenth century), and hence reflects an early modern compilation

In its contents the Trinity Compendium presents a fairly conservative selection of alchemical texts. Between its covers we find theoretical treatises of varying origins, with a bias towards Latin prose texts including (pseudo-)Lullian items, as well as Latin versions of works circulating under the names of traditional authorities like Geber (Jābir ibn Hayyān) and Rhazes (Muhammad ibn Zakariya al-Razi).⁸ Among the more obscure texts are an alchemical conversation between a necromancer and a spirit, in its subject matter much more conventional than the title may suggest; two texts on the alchemical material alkibrit, i.e. sulphur;⁹ and a collection of short texts entitled “Dicta Philosophorum”, which comprises excerpts from books attributed to alchemical authorities (Asclepius, Hermes, Plutarch, Plato, Pythagoras, Maria sister of Moses, and authors prominent in the manuscript’s main texts: Avicenna, Geber and Raymundus [i.e., Raymond Lull]).¹⁰ In these sections the manuscript resembles the established, authoritative academic textbooks used in medieval and early modern academic medical education.¹¹ Equivalent medical manuscripts would contain the Canon of Avicenna, the Isagoge and other classical didactic texts on the human body and its diseases. Authors bridging the alchemical and medical realms (like Rhazes, Lull, Arnold of Villanova and John of Rupecissa), and, more generally, the natural philosophical intersections of alchemy and medicine, would become relevant for the institutional perception of this volume at Trinity College Cambridge.

Poems from the corpus around the “Verses upon the Elixir” may be found among the small yet significant number of English alchemical verse in the Trinity Compendium: it includes a full copy of the “Verses upon the Elixir”, version A, amalgamated with the “Exposition” and “Wind and Water”, an eight-line fragment of “Richard Carpenter’s Work”, variant “Spain”, and another English alchemical poem not related to the corpus around the

close to the spirit of the individual quires’ composition, the following paragraphs describe the entire compendium without further consideration of its miscellaneous origins.

⁸ Pereira, *Alchemical Corpus*. On ancient origins and authorities of alchemy: Ferrario, “Origins”.

⁹ *MED*, s.v. ‘kibrit’, ‘alkibrit’; see Chapter 1, on “Alumen de Hispania”, “Sun”, “I shall you tell”.

¹⁰ The title is recorded as “Verbum abbreviarum seu Hortus Thesaurorum” in James, *Western Manuscripts*, 2: 341.

¹¹ On medical curricula and the ‘articella’ textbooks see Siraisi, “Faculty of Medicine,” esp. 366 f.; on the intermingling of practice and authoritative teachings in medical commentaries see Siraisi, “How To Write,” 96 and Siraisi, *Medicine*, 41 and 63–78. Also Siraisi, *Medieval*, Getz, “Faculty of Medicine” and “Medical Education”.

“Verses”; all these items are written in the main compiler’s hand.¹² It is not clear whether the compiler intended to document the state of alchemical literature of his time or whether he had practical interests in the recipes the poems describe. Most notably, however, it was this vernacular verse section of the manuscript which grew to be its most remarkable feature in the following decades: out of all items contained in the manuscript, the “Verses upon the Elixir”, “Exposition” and “Wind and Water” inspired the composition of the highest number of marginal notes.

The Trinity Compendium was not just a personal collection but, apparently, also a secluded volume. The textual history of the “Verses upon the Elixir”, “Exposition” and “Wind and Water” shows that this particular copy served as an original for only one sixteenth-century compiler’s copies.¹³ If the Trinity Compendium did not take part in the extraordinarily flourishing exchange of written *alchemica* which can be observed generally in the early modern history of the corpus around the “Verses upon the Elixir”, it is likely that it was written, or at least originally kept, in Cambridge, the town also influential in its scholarly reception and its final place of storage. The Trinity Compendium’s main compiler may have been a learned sixteenth-century Englishman moving in proximity to intellectual circles, perhaps even part of academia.

It is also interesting to note that the text of the “Verses upon the Elixir”, “Exposition” and “Wind and Water” contained in the Trinity Compendium is a fairly late copy of an early, near-authorial version which has not survived (see Diagram IV). It reproduces the complete poem and does not show any signs of personalisation on behalf of its copyist. The limited circulation of this manuscript needs to be considered in this context. It is possible that later copies simply cannot be identified from the surviving evidence; a clean, standard text like this one does not contain any errors that would form connections in a textual comparison. It is just as likely, however, that some readers’ decisions to record their comments on the page instead of producing their own copy in a personal notebook (a practice subject to scrutiny towards the end of this chapter) curtailed the production of later copies.

¹² The additional item is on ff. 108^v–109^r, *inc.*: “Take of the eyer bludde that is so redde”.

¹³ BL MSS Sloane 1092 and Sloane 1098; see Diagram IV and Chapter 6. Further manuscripts (Amsterdam, Bibliotheca Philosophica Hermetica MS 199 (‘Dekyngston’), possibly an exemplar to Copenhagen, Kongelige Bibliotek MS Gl. kgl. S. 3500 80, and BL MS Sloane 2170) show textual similarities, but evidence does not clearly identify the Compendium as their ancestor.

Diagram IV: Stemma for Trinity College Cambridge MS R.14.56¹⁴

The early ownership history of the Trinity Compendium would shape its future history until today: at an uncertain date after its compilation the volume was acquired by Thomas Whalley. When the young Thomas matriculated from Trinity in 1584 he formed part of a family tradition. It seems that his brothers and nephews became junior members of the College; his grandfather, a Cambridge student before the foundation of Trinity College, may have been at St. John's College in his time.¹⁵ Whalley became a fellow of the College after completing his BA but before acquiring his MA. In 1599, after he had dedicated seven years of diligent study to his Bachelor of Divinity, Whalley was ordained deacon and priest at Peterborough. Two decades later he became Rector of Orwell (Cambridgeshire). In College he successively held the posts of Senior Dean and Senior Bursar. However, it was not until forty-five years after his first matriculation that the degree of Doctor of Divinity was conferred upon him through direction of a royal mandate. The Trinity Compendium probably fell into Whalley's hands in the final six years of his life, when he was vice-master of the College and hence had both the means and the opportunity to expand his private collection.

¹⁴ Amalgamated from stemmata for the "Verses upon the Elixir", version A, "Exposition" and "Wind and Water", version A. Stemmata for the individual texts may be found with their editions in the second part of this book.

¹⁵ Venn, *Alumni Cantabrigienses*, 4: 377, s.v. 'Whaley [sic], Thomas'. The identity and vitae of the mentioned members of the Whalley family cannot be established with certainty. Conceivable brothers of Thomas are Richard (matriculated 1577), Walter (1580–1581), John (1584–1585), and Robert (1580–1581). Richard Whalley, born ca. 1499, may have been Thomas Whalley's grandfather.

Whalley was not unusual among his peers with his alchemical interests. Alchemical manuscripts (and, later, printed books) generally formed a natural part of a number of private book collections of the sixteenth century, some of them substantial.¹⁶ The most famous extensive contemporary collection with ample holdings of *alchemica* is probably that of polymath and scholar John Dee, who, incidentally, became fellow of Trinity College in the year of its foundation (1546).¹⁷ His medical colleagues were the most prominent group of scientific professionals to compile book collections of considerable size, and these, in turn, often enlarged the scientific sections of academic libraries after their original owners had died.¹⁸ Thomas Whalley's bibliophile endeavours may be comparatively humble, but expressed a similar learned spirit: he bequeathed his books and manuscripts to Trinity College Library at Cambridge. Five of the ten manuscripts Whalley donated to the College contain alchemical texts.¹⁹ Dating mainly from the sixteenth century and incorporating contemporary items like alchemical poems, these five volumes also represent the most current materials: manuscripts preserving alchemical knowledge as it was applied around the time of Thomas Whalley's birth. Whalley's *alchemica* may indicate a personal interest in alchemical experimentation or a purely textual approach to the study of nature as God's creation. The geographical, biblical and intellectual triangle formed by readers of *alchemica* in early modern Cambridge, Oxford and London would have supported his endeavours with an abundance of available manuscripts and books, as well as a peer group and communication network.²⁰

The later development of the institutional context into which the Trinity Compendium was transported as part of Whalley's bequest deserves special attention, since it is one example of many which shaped the preservation and perception of alchemical knowledge in early modern England. Soon after Whalley's death and donation Trinity College Cambridge cele-

¹⁶ Elmer, *Library*; Roberts and Watson, *Catalogue* and Roberts, "Additions"; Batho, "Library"; Jones, *Sir Isaac Newton*.

¹⁷ French, *John Dee*, 24.

¹⁸ Jones, "Medical Libraries". Informative in this context are also Leedham-Green and McKitterick, "Catalogue", Oates, "Libraries" and Talbot, *Medical Practitioners* and "Universities".

¹⁹ Alchemical manuscripts in Whalley's bequest now carry shelfmarks TCC MSS R.14.38, R.14.44, R.14.45, R.14.56 and R.14.57; non-alchemical items are TCC MSS B.3.20, B.15.12, B.16.4, R.4.3 and R.14.39 (James, *Western Manuscripts*, 2: 341).

²⁰ See Chapter 6 below for more information on southern England's communication networks. Chartier, *Order*, is of general interest to this context.

brated its centenary. At that point, the College and its Library were already looking back upon a history marked by adaptation and change. Founded in 1546 in a formal merger of two former colleges, King's Hall and Michaelhouse, the College was designed to focus on divinity, a subject largely based on the reading and interpretation of the Bible and related writings. The combination of the two original colleges' libraries, however, did not prove ideal for this purpose: civil law, rather than divinity, had been their area of excellence.²¹ With an increase of degrees in divinity in the second half of the sixteenth century, and a substantial number of students following the undergraduate arts courses, reading material for these subjects was of high importance; a smaller number of students of law required fewer textbooks by comparison.²² The body of printed educational books in the early College Library reflects this development: books relevant to religious studies took on an increasingly prominent role as both the Library and Trinity College evolved to occupy an established role in Tudor Cambridge. All subsequent changes in Trinity College Library holdings, which will be described in detail below, were in part a deliberate reaction to, and in part an inadvertent result of, changes in the College structure, the University curriculum and a general direction of early modern intellectual interests.

Alongside religious reading material, however, natural philosophical books, first and foremost medical literature, were subject to supplementation in Trinity College Library in the sixteenth and seventeenth centuries. Medicine had long been an established part of the University's degree when Henry VIII, also founder of Trinity College, founded a Regius professorship in 'physic' in 1540, alongside professorships in divinity, Hebrew, Greek and civil law.²³ The medical curriculum was reformed throughout the early modern period. Thomas Linacre's famously programmatic medical lectureships in Oxford and Cambridge, the medical fellowships provided at Gonville Hall in 1557 and the University's statutes of 1570, which waived the obligatory degree of MA for future physicians, were part of the same movement towards an improved, accelerated academic education of medical practitioners.²⁴ From the 1540s onwards, therefore, Cambridge University

²¹ Early King's Hall Library holdings are detailed in Gaskell, *Trinity College Library*, 12. Gaskell remains the classic authority on the history of Trinity College Library. His work is supplemented by McKitterick, *Wren Library*, 64. See also Mooney, *Index*.

²² Numbers of higher degrees awarded in the later sixteenth century are summarised in Gaskell, *Trinity College Library*, 23. Contemporary statutes for medical degrees may be found in Heywood and Wright, *Cambridge*, 10, 14 and 17.

²³ Pedersen, "Tradition," 462.

²⁴ Lewis, "Linacre," esp. 225–226.

educated three times as many medical students and issued a much higher number of licenses to practise medicine, surgery or both, than previously.²⁵ Trinity College was the college to award the highest number of MDs in Cambridge during this period.²⁶ The expansion of the College Library's natural philosophical holdings to provide for this subject area formed a strong undercurrent that would influence the college members' approaches to written knowledge.²⁷

The position of alchemy within this newly focused canon of academic interests is a complex issue. Alchemy was never part of the university curriculum; the institutionalisation of modern chemistry and a professorship at Cambridge would not occur until 1702 (the first of its kind in Britain).²⁸ Yet in early modern academic circles, the connections between alchemy and scholarship were not as loose as the contemporary university curriculum would suggest. On one hand, alchemy featured frequently as a topic in academic disputations. Even in the early seventeenth century these included

questions dealing with astrology, alchemy, and magic. The topics range from general questions about the lawfulness of such studies and whether they are sciences at all, to such narrow topics as the possibility of transmuting base metals into gold and of using spells to cure diseases. Frequently the respondents were expected to argue against the occult sciences [...]. But occasionally some freedom for divergence was allowed[.]²⁹

Alchemy also had natural connections with medicine in the area of pharmacy and the manufacture of remedies.³⁰ On the other hand, many early modern scholars showed an interest in alchemy, whether they were interested in the use of alchemical procedures for medical purposes outside of academia, or engaged in alchemical experimentation in a college setting; Somerset gentleman Samuel Norton (1548–1621), probably great-grandson of alchemical poet Thomas Norton, is said to have practised alchemy while

²⁵ Lewis, "Linacre," 230–231 and 240.

²⁶ Pelling and Webster, "Medical Practitioners," 196.

²⁷ For a general discussion of the academic atmosphere of the sixteenth and seventeenth century, see Brooke, "Learning".

²⁸ Archer and Haley, *1702 Chair*. The institution of the chair probably occurred in early 1703, as the University was using the Julian calendar (*ibid.*, xvi).

²⁹ Feingold, "Occult," 78.

³⁰ The joint history of alchemy and medicine remains a topic in need of further research in modern scholarship; see e.g. Crisciani, "Alchemy". Its pioneer, Allen G. Debus, published variously on related subjects with a focus on Paracelsianism. See e.g. Debus, *Chemical Philosophy*, *English Paracelsians* and *French Paracelsians*.

studying at St John's College, Cambridge.³¹ Some sought to gain insights into the workings of nature from a theological viewpoint, like (perchance) Thomas Whalley. Yet others joined a long line of learned men who stretched their intellectual curiosity beyond their own field of study, a line extending to the scientific studies of Sir Isaac Newton, another alumnus of Trinity College, and into the eighteenth century. In many ways, Whalley, his interests in natural philosophy and alchemy found an ideal home at Trinity College Cambridge—as did his books and manuscripts.

Once they entered Trinity College Library in 1637, Thomas Whalley's books and manuscripts joined a much larger collection whose establishment and growth was essentially different from his private library. As mentioned above, Trinity College Library's holdings had been adapted to the changing needs and demands of the College's junior and senior members since the late sixteenth century. For the early seventeenth century in particular, the targeted acquisition of printed books for the fellows of Trinity College is well-documented: its new emphasis on natural philosophy beyond the medical curriculum mirrored the fifteenth-century expansion of the manuscript holdings of college libraries in many respects.³² Divinity would continue to account for at least half of the stocks throughout the seventeenth century, but in the 1640s the College also owned 438 books on other subjects; a quarter of these covered various areas of natural philosophy. By the last quarter of the century, books on the sciences would account for ten per cent of the collections. Trinity was not the only Cambridge college which showed such tendencies. Although the history of St. John's College Library, Trinity's geographical neighbour, is yet to be written, its patterns of acquisition and classification appear to have been similar.³³

In a booklist drawn up in 1645, the 'Medici' section of Trinity College Library alone lists 53 books "including writers not only on medicine but also on alchemy, botany, chemistry, metallurgy, pharmacology, and surgery".³⁴ This 'Medici' section provides a particularly interesting context for Thomas Whalley's books. The Library's historian, Philip Gaskell, found that

³¹ Feingold, "Occult," 84; Mandelbrote, "Samuel Norton".

³² Jones, "Medicine and Science," 437.

³³ St John's College's printed holdings were composed of bequests (foremost John Collins' medical library in 1634) and monetary donations following the opening of St. John's Old Library in 1628. I would like to thank Jonathan Harrison, Librarian of St. John's College library, for this information. Jones, "Reading Medicine," 155–156.

³⁴ Gaskell, *Trinity College Library*, 89. Gaskell's classification is clearly modern, not historical.

[p]erhaps the most interesting feature of this part of the Library is the group of eighteen volumes of alchemy and iatrochemistry bought by the College in 1637 (S28–S34) as a representative collection of the major medieval and Renaissance writings in this area. They included the heterogeneous *Theatrum chemicum* (S30), and the daringly modern Paracelsus and Sennert (S28–S29).³⁵

Several points are noteworthy here. Firstly, the date of these acquisitions coincides with the date of Thomas Whalley's death and bequest. An influence of Whalley's will and wishes on the nature of these acquisitions, although certainly possible, cannot be established from extant documents; Whalley's last will does not survive. Secondly, the motivation behind these acquisitions, as proposed by Gaskell above, leaves open the question of whether the desire to compile a 'representative collection' of alchemical items was one proposed and supported by the College, or a fellow's personal agenda. If Whalley was, indeed, instrumental in this process, his donation of books and manuscripts, too, would need to be considered in a different light. Finally, if the described purpose for the Library's expansion is accurate, the targeted acquisition of *alchemica* as historical, not scientific, documents would agree in part with Elias Ashmole's method of collecting alchemical poems, which commenced around the same time.³⁶ Incidentally, Elias Ashmole's *Theatrum Chemicum Britannicum*, which was first published fifteen years after the described developments, does not seem to have formed part of Trinity College Library holdings until 1864, when it was given as part of another bequest, now that of former Trinity scholar William Grylls.³⁷

Even if not in competition with printed books in the early seventeenth century, manuscripts like the Trinity Compendium, and with them texts from the corpus around the "Verses", were perceived in an environment increasingly defined by the printed book in academic libraries. As mentioned above, many manuscript additions to the Library can be traced back to originally private sources. Like the Trinity Compendium, the majority of alchemical manuscripts entered the Library through this back door.³⁸ Once part of the Library collections, the manuscripts were adapted to the Library's existing classification system, i.e., categorised within given parameters, in closest proximity to the given categories, and according to the judgement

³⁵ Gaskell, *Trinity College Library*, 90.

³⁶ TCB, "Prolegomena". Feola, "Theatrum".

³⁷ On Grylls' bequest see Gaskell and Robson, *The Library*, 34–35. I would like to thank Trinity College librarian Sandy Paul for bringing this volume and its history to my attention.

³⁸ Gaskell, *Trinity College Library*, 79.

of an individual whose intentions were pragmatic: a librarian's conception of the order of books and the world primarily serves the functionality of the library. The establishment of ordering principles in Trinity College Library was an ongoing concern when the Trinity Compendium joined its shelves. A dedicated College Librarian had first been provided for in Sir Edward Stanhope's will in 1603; a classification system was proposed in the early 1640s under the guidance of the appropriately named College librarian, William Clutterbooke. This, however, was not carried out until the 1660s, when books were finally classified by subject rather than donor.³⁹ The categorisation by subject area, shelf number and *numerus currens*, a system agreeing with the conception of modern libraries in principle, was not necessarily an obvious choice at the time: even the concept to assign unique shelf marks to individual books, a method first introduced in monastic libraries in the fourteenth century, was only one of several systems in use in the sixteenth century. Alternative systems (e.g. the use of repetitive shelf marks without an assignation of book presses to specific subjects) required the presence of a librarian for the retrieval of individual items.⁴⁰

The organisation of Trinity College Library, even if not established when the Trinity Compendium was first given to the Library, is meaningful for the context of contemporary receptions of alchemy and alchemical poetry in scholarly contexts. The Trinity Compendium was assigned to the early modern Library's R class, which covers the areas of history, poetry, philosophy, law, natural science, medicine and music, and thus a wider field than the 1645 'Medici' section of printed books.⁴¹ Significantly, for the purposes of the Library, a more precise definition of the volume, and hence of the role of alchemy within the university disciplines, was not necessary.

It is further remarkable that medieval manuscripts formed a relatively recent addition to the College Library: "In 1600 Trinity did not possess a single one of [...] [its] superb medieval manuscripts [...] [.] Then all of a sudden the College was presented with about 330 manuscripts", the majority of

³⁹ Gaskell, *Trinity College Library*, 75 ff., 86 and 112–115. The first draft class catalogue of 1645 survives in a manuscript now in the British Library (BL MS Sloane 78, ff. 139^r–154^r). An alphabetical finding list of less relevance to the current investigation predates it by five years.

⁴⁰ Sharpe, "Accession," 281 and 284–287.

⁴¹ This modern description of the miscellaneous contents of section R appears in James, *Western Manuscripts*, 2: v. The Library's indexed class catalogues, which mirror its organisation, run from 1667 to ca. 1675 (TCC MSS Add. a.101 and a.101A); the catalogue of the Old Library is now TCC MS Add. a.103¹. See also Gaskell, *Trinity College Library*, 9, 23, 86–90, 128. Heywood and Wright, *Cambridge*, 10, 14 and 17.

which were part of one of four donations containing materials out of the dispersal of monastic libraries.⁴² From the 1620s to the end of the seventeenth century, a further thirty-nine donations of 206 manuscripts in total were made, among them Whalley's.⁴³ The expansion of the College's manuscript collections continued to be impressive. Even today, Trinity College Library contains the largest collection of medieval manuscripts of any college in Great Britain.⁴⁴

Yet even amidst the cornucopia of manuscripts arriving at Trinity College Library in the seventeenth century, the Trinity Compendium would have been an oddity. Prior to Thomas Whalley's bequest only one alchemical manuscript formed part of the College's collection; this had been donated by Thomas Nevile, master of the College from 1593 to 1615, a man of wide scholarly tastes but not known for a particular penchant for alchemy.⁴⁵ It was not until the eighteenth century that a considerable donation of *alchemica* was made to the College by scholar and antiquary Roger Gale, son of the University of Cambridge's Regius Professor of Greek, Dr Thomas Gale. In his case it was most likely antiquarian interests that prompted Roger Gale's acquisition of alchemical works, a passion he had in common with his contemporary Sir Hans Sloane, even if the latter also had his medical background to support his literary alchemical pursuits. Similarly, the majority of alchemical manuscripts circulating in England at the time did not enter academic institutional libraries until at least a century after Whalley's bequest. Notably, Gale's donation to Trinity College Library does not hold as much potential for an investigation of humanist approaches towards alchemical writings as Thomas Whalley's, both due to the time and to the motivation of their respective collection activities.

Its absorption into the Library collections also marks the tail end of the Trinity Compendium's active history. Palaeographical analysis of its marginalia shows that the manuscript left the active cycle of written communication when it was placed into the care of College librarian William Clutterbooke in 1637. Many other items held there today testify to the fact that 'once a book had come into the library it was very rarely annotated thereafter'.

⁴² Gaskell, *Trinity College Library*, 79.

⁴³ Gaskell, *Trinity College Library*, 83.

⁴⁴ See Mooney, *Index*.

⁴⁵ TCC MS R.14.37. James, *Western Manuscripts*, 3: v–xiii. Incidentally, the only alchemical manuscript present in St John's College at the time was given sometime between 1633 and 1644 (Jonathan Harrison, Librarian of St. John's College library, private conversation, 2006).

[As] a class, readers in the Library tended to leave little obvious trace, save in their subsequent writings and in records of the books they borrowed. [...] [By] itself the known and recorded use of Library is poor evidence for the interests and activities of members of the College.⁴⁶

In 1637, therefore, the volume was archived and became an object of comparatively limited use, almost an artefact. Its actual late readership, including undergraduates, students and doctors of divinity, law or physic, was essentially different from the volume's first reader (its compiler) or any readers he would have envisaged for it. The Trinity Compendium thus also stopped circulating as the corpus around the "Verses upon the Elixir" entered the final years of active manuscript reception. In this way, its appearance in Trinity College Library and its subject classification are emblematic of the increasingly marginal role of alchemical manuscripts in the early modern printed world of writing.

2. THE MARGINS OF KNOWLEDGE: BOOKS AND COMMONPLACING IN TUDOR ENGLAND

It may seem that alchemical manuscripts record recipes in an impersonal way; more often than not they do not record the name of authors, copyists or annotators. Yet they contain implicit information about their users, and, in this instance, a very distinctive community of users. In its current state, the Trinity Compendium shows much wear and tear. No other item from Thomas Whalley's collection shows a similar amount of signs of early usage. The notes which grace this manuscript's margins, and occasionally every bit of blank space on a page, are signs of use rather than abuse: the volume's history of emendation and annotation reveals the backgrounds, interests and personalities of its readers.

The method of notetaking applied in the margins of the Trinity Compendium confirms its users' identities as sixteenth-century scholars: men influenced by humanism and antiquarianism, the contemporary development of scribal culture and print publication, and the institution of academic collections and libraries; men whose internal organisation and *mise-en-page* of newly produced manuscript texts, annotations and notetaking techniques informed their understanding of *alchemica*. The educational and cultural influences of those who wrote and annotated the Trinity

⁴⁶ Gaskell, *Trinity College Library*, 33 and 75–78.

Compendium will provide further background for the analysis of its copy of the “Verses upon the Elixir” in the final part of this chapter as well as the subsequent chapter, which discusses the written exploits of a contemporary physician.

Sixteenth-century culture had a general impact on the ways in which literate men, especially scholars, received and understood information in several areas related to the written word.⁴⁷ One prominent area of change was the introduction of printed books. A subtle way in which the institution of print influenced scribal culture is in the layout of manuscript pages. While early printed books took their visual orientation from their manuscript ancestors, the sixteenth-century media reversed this process. Manuscripts now made full use of the possibilities of textual arrangement showcased in print, including title pages and, increasingly, indices and tables of contents.⁴⁸ More pertinently, however, the expanding publication of works by canonical authors and their sixteenth-century followers facilitated access to information and developed the distinctly early modern perception of the book market as a receptacle for, and generator of, current thought. This bookish communion of authors and texts from several time periods, geographical and cultural areas resulted in what has been described as “information overload”.⁴⁹ In libraries like that of Trinity College Cambridge the need to sort information for future retrieval resulted in the implementation of the above-mentioned classification system. Otherwise, early modern readers found that their urge to acquire more information from the growing book market needed to be balanced with techniques of digesting it in meaningful ways. John Locke, Gabriel Harvey, Ben Jonson and John Dee are among the most prominent men to preserve their reading experiences for their peers and thus in the historical record.⁵⁰ Here the availability and format of received written information prompted the organisation of its reception and the production of further knowledge.

Alongside and key to the introduction of print, humanism, the grand educational reform of Renaissance Europe, changed the ways in which both

⁴⁷ Hackel, *Reading Material*, contains a valuable overview and bibliography for the history of reading. See also Sherman, *John Dee*, chapter 3.

⁴⁸ McKitterick, *Print*, chapter 2, esp. p. 47 ff. Cp. the influence of print on the perception of authorship discussed in Chapter 3.

⁴⁹ Sherman, *Used Books*. Grafton, “History of Reading,” 142–143. Information overload is discussed in a series of articles in the *Journal of the History of Ideas* 64 (2003), see esp. Rosenberg, “Early Modern,” Blair, “Reading Strategies” and *ibid.*, *Too Much to Know*.

⁵⁰ Meynell, “John Locke’s Method”; Sherman, *John Dee*; Jardine and Grafton, “Studied”; Evans, “Ben Jonson’s Library” and McPherson, *Ben Jonson’s Library*.

famous and ordinary readers conceived of the written word. It promoted a systematic, reflected and analytic approach to texts and their exegesis. The emblematic object at the heart of the sixteenth-century learned culture is the commonplace book, a vessel for the fruits of reading and notetaking related to the earlier tradition of medieval *florilegia*.⁵¹ Commonplace books were originally blank volumes divided into sections, each dedicated to a certain theme or concept heading. According to Erasmian teachings, texts were comprised of grammatical, rhetorical, moral and other valuable meanings which, once extracted, would become building blocks for new insights in different contexts. In short, commonplacing was a meticulous process of dissection, classification and the rearrangement of texts. As a method for understanding received knowledge to generate further insights, it also delivered the parameters of scholarly thought. Finally, its writing techniques would also permeate manuscript codices not related to the art of commonplacing.⁵²

A third aspect of sixteenth-century book culture relevant here is the Renaissance antiquarianism so closely connected with the interests of humanism. Here the acquisition, even accumulation of knowledge expressed itself in the form of private book collections which rivalled the budding academic libraries of sixteenth-century England; John Dee's famous library was already mentioned above as a prominent place of learning for the student of books, nature and the occult. The organised shelving of books in private and academic collections mirrored the evolving organisation of texts in manuscripts and printed books. Both were used for orientation in the labyrinth of early modern learned thought. Book collections, whether private or part of an institution, implicitly represented the order of the early modern world.

How was alchemical writing affected by the momentum of sixteenth-century learning and culture? With regard to print, the impact was not direct. Alchemical books were not printed in significant numbers until the second half of the seventeenth century, excepting a small peak of publications towards the end of the sixteenth century. Generally, early modern

⁵¹ Rouse and Rouse, *Authentic Witnesses*. Notably some modern scholars would have early modern annotation techniques attributed to the introduction of print; see Cavallo and Chartier, *History*, 23. For their classification see Blair, "Note Taking," 90.

⁵² See especially Blair, "Note Taking". Also Sherman, "Renaissance Readers"; and Kintgen, *Reading*, esp. 18–26. Other literature on commonplace books ranges from the classic Lechner, *Renaissance Concepts*, Parker, "Importance" and *Commonplace Book*, to Moss, *Printed Commonplace-Books* and Beal, "Notions in Garrison".

readers with alchemical interests were much more likely to benefit from print publications in other areas of natural philosophy, which informed the theoretical principles of the art.⁵³ Since the readership of alchemical poems like the “Verses upon the Elixir” included clerics and medical doctors, i.e. scholars whose main occupation received much attention in print (including the writer of the notebook series discussed in Chapter 6 below), their understanding of the organisation of word and thought would have been based on recently published works to a considerable extent.⁵⁴

Humanist teachings and the connected methods of textual exegesis played an important role in the history of natural philosophical writing, and thus alchemy and the corpus around the “Verses upon the Elixir”.⁵⁵ Since Tudor copyists of scientific texts, like all others, had access to more written materials than their predecessors, the commonplace book offered them an opportunity to gain a form of remote access to a bewildering mass of information.

Carrying on an ancient tradition, natural philosophy in the Renaissance searched for certain, causal knowledge about nature primarily through the interpretation of and commentary on authoritative texts. [...] Instead of developing a literary method specific to their subject, natural philosophers drew from the humanist education and ambient culture shared by the educated élite.⁵⁶

Some medical commonplace books and manuscripts whose compilers occupied a “mediating role as both receiver and transmitter of medical information” are well-known to modern scholarship.⁵⁷ Similarly, some of the sixteenth-century manuscripts containing texts from the corpus around the “Verses upon the Elixir”, including the Trinity Compendium and the notebooks of the next chapter, took on distinctive forms.

Finally, antiquarianism, the culture of collecting and the organisation of libraries not only afforded new ways of acquiring and accessing written information to those of sufficient means or an appropriate institutional affiliation, but also subtly influenced the ways in which the canon of the disciplines and the order of knowledge were perceived. The organisation

⁵³ Kassell, “Secrets”.

⁵⁴ On medical readers of alchemical poems, see Telle, “Spruchdichtung,” 459.

⁵⁵ On commonplacing and notetaking in natural philosophical contexts see Ann Blair, esp. “Annotating”; *ibid.*, “Humanist Methods”.

⁵⁶ Blair, “Natural Philosophy,” 449 and 451. See also Blair, “Note Taking,” 88; Kibre, “Albertus Magnus,” 200.

⁵⁷ Jones, “Harley MS 2558,” 36; also Jones, “Medicine and Science”.

of libraries, their emerging classification systems and architectural peculiarities would have left an impression on any scholar using them; and conversely, these scholars were instrumental in the further adjustment of libraries once they were found to be lacking in structure or capacity.⁵⁸ Private collectors reading *alchemica* in academic surroundings, like Thomas Whalley, might try to emulate or supplement their institutional collections. Readers like the physician of chapter 6 below, i.e. readers who mostly borrowed texts to produce their own copies, would need to choose individual items from the libraries of others and be influenced by the pre-selection presented there. Alchemical manuscripts forming part of historical collections are therefore often best understood in terms of the interactions between the spaces they occupied at different times: their physical whereabouts, the categories into which they were sorted, the items surrounding them in a collection, and, most pertinently, the virtual cornucopia of literature available to their readers.

Altogether, manuscripts containing items from the corpus around the “Verses” document this evolution of media over time: the arrangement of the Trinity Compendium and the Sloane Notebook Series (see Chapter 6) is very different from that of the manuscripts that established the corpus in the fifteenth century.⁵⁹ These codices show that established methods of navigating the growing body of knowledge were as necessary a skill for an alchemical practitioner as his intimate knowledge of alchemical substances, equipment and procedures. Perhaps more so than previously, the production and reception of texts was not confined to the items one had at hand but involved with a wider culture of writing.

3. ALCHEMY ANNOTATED

If a “commonplace book is like a record of what that memory might look like”, the Trinity Compendium is a recollection of a generation of scholarly thought.⁶⁰ Its margins preserve evidence of the reader reception of the period between the volume’s original compilation and its donation to Trinity College. As outlined above, this period between the mid-to late sixteenth century and 1637 constitutes both the only and a very active time of annotation. The Trinity Compendium’s copy of the “Verses upon the Elixir”,

⁵⁸ James, “Collections”; McKitterick, *Wren Library*.

⁵⁹ E.g. Bod MS Ashmole 759 and BL MS Sloane 3747, see Chapter 2 above.

⁶⁰ Thomas, “Reading,” 410.

merged with the “Exposition” and “Wind and Water”, is particularly heavily annotated. The margins and even spaces between lines are covered with notes to full capacity. Lines marking specific words or reaching diagonally across the pages add to the picture of business. Indeed, it was likely the confusing, crowded appearance of this poem in the Trinity Compendium which inspired M.R. James’s abovementioned, uncharitable if not injudicious description.

Who annotated the Trinity Compendium? Given the manuscript’s constant presence in Cambridge (as proposed above) it seems that the annotators, too, were Cambridge men. Thanks to their references to a large number of related writings (most likely including both manuscripts and printed books) it is clear that they had enjoyed formal training in textual interpretation as well as access to a number of other *alchemica*; and considering the situation of the natural philosophical and alchemical holdings in college libraries in the late sixteenth century, it is almost certain that they would have found them in private collections. The annotators of the Trinity Compendium, therefore, seem to have been members of the educated circles around late sixteenth-century Cambridge, perhaps scholars with an academic affiliation.

It is also worth pointing out specifically that several readers were involved in the annotating process, one of them probably the (anonymous) compiler of the volume. This observation holds even though it is difficult to establish which of the notes that grace this copy of the “Verses upon the Elixir” represent contributions by different readers, and which of them were produced by the same reader in different sittings; the presence of several annotating hands is obvious. Finally, even a glance at this copy of the “Verses upon the Elixir” reveals that its annotators were schooled in exegetic methods of reading and preferred Latin as language of annotation. Here an interesting juxtaposition of intellectual and practical backgrounds occurs on the manuscript page. Arguably, the corpus around the “Verses upon the Elixir” represents a genre of *alchemica* composed by artisans, that is, those more versed in laboratory experimentation than in the production of manuscripts: it is rather different from simple theoretical-allegorical poems on alchemy that are not recipes, neither in format nor content, from dedicatory poems written in the hopes of securing royal patronage or poems with doctrinal significance.⁶¹

⁶¹ Kahn, “Alchemical Poetry” I, 268 discusses “The Hermet’s Tale” (*TCB*, 415–419) as a prime example of allegorisations (his term); *ibid.*, II, 69–71, engages with doctrinal and practical contents of alchemical poems. A poem quite obviously designed to procure patronage (and

In the Trinity Compendium, a good century after their composition, the “Verses upon the Elixir” are discussed by Cambridge readers apparently educated in letters but also familiar with alchemical experimentation to a level necessary for meaningful commentary.

For the following analysis of the mechanisms of annotation, the importance of marginalia for the work of Thomas Lorkyn, Regius professor of physic at Cambridge from 1564 to 1591, may provide some perspective:

were it not for these notes we should not know that Lorkyn himself practised as well as taught medicine [...] they are meant to help Lorkyn himself and other users of his book in ordering and assimilating their own reading, comparing and criticizing what they read, and preparing the medical reader to carry his understanding of what he reads over into action.⁶²

Lorkyn’s library was open to students who were also allowed to borrow books; it probably ‘served as something of a faculty library during his long tenure of the regius professorship’.⁶³ In many alchemical manuscripts, however, the process of annotation was not as explicitly aimed at a known readership or cannot be traced to the existence of a professional circle or the location of a specific library. Nevertheless, Lorkyn’s treatment of books and readers is an interesting expression of the communication between scholars at his time, and the role of books within it.

A closer parallel may be drawn with the vita and library of scholar-statesman Sir Thomas Smith, who was the first Regius professor of civil law at Cambridge from 1542 and was an integral member of John Cheke’s circle.⁶⁴ Smith’s commentaries and annotations of books reveal the mind “of a scholar trained in mid-Tudor Cambridge”. Significantly, by “the early 1570s Smith had developed an active interest in practical chemistry, alchemy, and metallurgy”.⁶⁵ Smith and Whalley resemble each other in their position, affluence and willingness to collect books. The Trinity Compendium’s annotators were their peers. The remainder of this chapter will consider the Trinity Compendium as a product of this scholarly environment. The conversations about alchemy preserved on its pages will illustrate an intimate chapter of the reception of *alchemica*.

thus amalgamated from different sources and appropriately lengthy) forms the main focus of Grund, *Misticall Wordes*.

⁶² Sherman, *John Dee*, 70.

⁶³ Jones, “Medicine and Science,” 167, 169–170.

⁶⁴ Smith is further discussed in Webster, *Health*, 315–316.

⁶⁵ Sherman, *John Dee*, 76.

3.1. *Conversations in the Margins:*
Marginalia in Trinity College Cambridge MS R.14.56

Given its current level of annotation, it is difficult to imagine the Trinity Compendium in its virginal state. A page like f. 86^v (see Figure V) would have contained just the text of the “Verses upon the Elixir”, surrounded by ample margins and with sufficient space between the lines to make the reading experience a pleasurable one. The scribal tools from which an early reader of the Trinity Compendium might have chosen when facing the pristine text were many, including a number of uses for the written word. The text might have been structured with verbal annotations (in tables of contents, headings or marginal key- or catchwords). On an explicatory level, notes could have been used to indicate provenance, linguistic issues, the poem’s supposed authorship or title. Notes of a more personal nature (famously, John Dee’s diary) were not unheard of, and marks of owner- or readership, although not yet customary, might have been added, too. The main types of notes recorded in the Trinity Compendium, however, amend or comment on the poem’s contents, or are “the result of the state of textual uncertainty”.⁶⁶ Interlinear notes and marginalia in particular merit further investigation.

In comparison with other paratextual elements, interlinear notes and alterations to the text of the “Verses upon the Elixir” are relatively few. Yet they show that the readers were familiar with the experimental aspects of alchemy, whether through practical experimentation or reading knowledge. In their contents, most of the notes explore matters of the text further, paraphrase passages, gloss the terminology and provide practical or theoretical background for the recipe described in the poem. Only some marginal notes contain straightforward practical alchemical information. Methodologically these notes fall into the categories of the descriptive (summaries of phrases or passages), corrective or intrusive (ranging from orthographic changes to the proposition of alternative passages) and explicative (additions to text or the theory underlying it). As mentioned above, the majority of interlinear notes are written in Latin. They also employ a scholarly and professional style reminiscent of scholarly exegesis, rather than the experimentation underlying so many more urgently written, less carefully crafted notes in other contemporary alchemical manuscripts. Further, many notes consist of a single phrase or alchemical terms which neither challenge nor

⁶⁶ Sherman, *John Dee*, 81–89.

substantiate the main text in an obvious way. For example, on the page preceding the selected one, the word 'earth' in the line "It owt of the earth looke thowe take" prompted a reader to insert "terra secunda .i. gumme sericon" (TCC MS R.14.56, f. 86^v). Some remarks appear to refer to other books directly, or deliver parallel passages, synonyms or concepts from other *alchemica*. Taken together, these notes demonstrate that the readers followed customary sixteenth-century practices of annotation, albeit adapting their vocabulary to the special context of alchemical literature.

Significantly, interlinear notes and marginalia in the Trinity Compendium are not independent, equal elements on the manuscript page: they demonstrate immediate written reactions not only to the text itself, but also to previous readers' notes; or, in the instance of a single reader re-consulting a text he had read and annotated before, reactions to his own previous readings. The most striking example of this, in the interlinear notes, is an alteration of the time scale prescribed for an alchemical process. Originally and in all other copies, the relevant lines read

ffor in it the earthe desolued must bee
without fyre [by] days three

"Verses upon the Elixir", ll. 9–10

In the Trinity Compendium, however, a reader has changed the word 'days' to "wekes", an alteration possibly prompted by alchemical practice, i.e. motivated by the failure to produce the desired result in an experiment within the indicated time span; it may also present information acquired from another alchemical treatise. A later reader has expressed his scepticism towards this emendation by adding a question mark to the same. Similar attempts to recover a text's true, 'obscured' meanings frequently occur in alchemical texts whose style quite clearly puzzled contemporary readers as much as it does the modern historian. In the Trinity Compendium in particular, however, it is evident that all successive readers put the manuscript as they received it under constant scrutiny—complete with previous readers' annotations. They did not consider the recipe text itself more important, or more authoritative, than the contemporary remarks preserved in the annotations. The resulting chronology of notes bears witness to a specific form of written communication.⁶⁷ In these 'marginal' conversations, all users of a manuscript form a discourse community.

⁶⁷ Similar observations about John Dee's marginalia are presented in Sherman, *John Dee*, 15. For more theoretical discussions of annotation see Blair, "Note Taking," 86.

Another striking piece of evidence for the interaction of readers in notes presents itself in a couplet with a peculiar rhyming pattern. In the Trinity Compendium, and the majority of extant copies of the “Verses upon the Elixir”, one couplet is preserved in a noticeably awkward form:

A blacke earth like tynder darke
 Hevie as metall bynethe shall lye “Verses upon the Elixir”, ll. 17–18⁶⁸

This is the only couplet in which the rhyme words do not rhyme. Whenever this is not corrected, it is safe to assume that the compiler of the respective manuscript chose to keep this irregularity. Some copyists of the “Verses upon the Elixir”, however, did change one of the two rhyme words in order to produce a rhyme; this results in one of these two varieties: “A blacke earth like tynder darke/ Hevie as metall bynethe shall lurk” (GUL MS Ferguson 322) or “A blacke earth like tynder dry/ Hevie as metall bynethe shall lye” (BL MS Sloane 3747). The second version changes the alchemical information about the properties of the substance described (dark/dry) and is therefore intrusive; the first version is of a stylistic nature and changes the metaphorical connotation of the phrase at most. The Trinity Compendium retains the couplet as it appears in most other manuscripts, complete with the imperfect rhyme. This invited readers’ comments perhaps more than other passages of the text: a reader of the Trinity Compendium added the word “dry” as an alternative rhyme word to the first line. Another note reads “alias drye”; it probably represents an attempt to reconcile the original version, perhaps perceived as authoritative, with the stylistically more pleasing one. Both readers were clearly knowledgeable about other copies circulating at the time.

Most striking about these notes, however, is that they evolved over a long period of time, and most likely without a later reader in mind. As mentioned before, the manuscript was not intended for (or at least not entered into) circulation, and certainly did not travel beyond the intellectual circles of Cambridge. The annotations, as indicated previously, hence constitute a form of temporally remote communication: a forum for the exchange of knowledge about the body of alchemical writing and its interpretation. They record information and provoke further written reactions to it. In the given example they take on the form of annotations comprising quotations from alternative copies, not original comments. The notes moreover do not present information as a fact; if they did, one would find cancelled passages

⁶⁸ This example was used previously in Chapter 2 above, for different purposes.

substituted by the versions a given reader approved of. Instead, the notes document a thought process, a list of alternatives recorded side by side. All readers were able to consider them as viable alternatives.

The mechanisms of annotation described so far can be characterised as results of the attempts to digest and improve texts. A third form of annotation is cross-referencing, another typically scholarly technique.⁶⁹ Although text-based analysis of *alchemica* was often both the basis for, and supplemented by, practical experiments, the readers of the Trinity Compendium, Cambridge men of a scholarly background, mostly employ marginal notes to provide cross-references to other works. Here it is not only possible to reconstruct the corpus of works to which these readers had access (an exercise carried out in part for the 'virtual library' of the physician discussed in Chapter 6 below), but also to explore the annotations by type.

The references in the Trinity manuscript employ different formats. Some notes provide a folio number without mentioning a specific book. They refer partly to pages in the volume itself, and partly indicate that the annotating reader used the other, referenced book so frequently that he did not need to record its title for his own information. Other notes mention an authority without providing a concrete point of reference. These notes are evidence that a reader had memorised a passage or more general concept in association with a named authority, or, more likely, received it as common knowledge. Again, the need for a full reference is abolished. A third group of cross-references provides complete information about names and page numbers for parallel passages. For example, at the right margin of folio 86^v, ca. two thirds down the page (see Figure V), there is a cluster of notes in the same hand mentioning John Garland. This reader seems to have compared the "Verses upon the Elixir" directly with the Garland volume in question, which may have been in his possession at the time. From the note alone, however, it is not possible to identify the work or volume intended. In the sixteenth century, Garland was best (and erroneously) known as the author of the *Compendium alchimiae*.⁷⁰ Generally, however, since the Garland passages referred to in the margins appear to derive from passages in

⁶⁹ "Extensive cross-referencing, both within the volume and to other volumes, is almost always in evidence in scholarly readings: no word appears in scholars' margins with a higher frequency than *vide* (except, perhaps, *nota*). By reading with all other authorities in mind, and by entering them into the margins, the scholar provided a network of, and map to, an ever-growing body of knowledge". Sherman, *John Dee*, 71; 82–83.

⁷⁰ Garland, *Compendium*. On Garland, see Webster, "Alchemical and Paracelsian," 311; Lawler, *Parisiana Poetria*, xi–xii.

the Trinity Compendium itself (mostly in its margins) and in other contemporary or older alchemical writings, the volume's annotators seem to have approached *alchemica* both within their literary context and through close readings. And they made the information they gleaned through this parallel reading of several *alchemica* available to later readers, who may have perused the Trinity Compendium in the same setting.

When considered as a medium of communication, marginalia, and especially cross-references, both limit and define the audience of the Trinity Compendium in some respects. Early readers of the manuscript characteristically and initially left the annotations for their own perusal. Whenever the manuscript changed hands afterwards, it carried the thoughts of some previous owners in a form of expression akin to diary writing; cross-references as shorthand references presupposed a knowledgeable reader. In this way, the Compendium presented readers of the "Verses upon the Elixir" with text and commentary, the need to interpret both, and, to some, the invitation to join in the annotation. Its mostly Latin, formal exchange of thoughts, written by readers who shared a high level of education, and its conversation about books and manuscripts, would have been recognised only by readers of similar backgrounds.

A particular and peculiar form of audience control is executed in some notes written in cypher. Upon closer inspection, this script appears to be a form of Hebrew written, partly, in reverse; once deciphered, many of the words simply mention the production of an elixir, and therefore do not contain any vital information.⁷¹ The function of the cypher is, then, not to communicate knowledge to a select few, or to hide it from the uninitiated, but to discourage subsequent readers unable to read the script. The cypher itself implicitly declares them unworthy of receiving any valuable information. Significantly this manuscript's intended readership is, therefore, not only shaped by its compiler, but also by its annotators. And just as they turned to authorities for help with the interpretation of an obscure passage, they were aware of the fact that their comments would represent a perhaps not identical, but yet similar aid or a hindrance for their successors. Taken together, the different forms of marginalia present in the Trinity Compendium show that the act of annotating involved coincidence and deliberation, disclosure and concealment to varying degrees.

⁷¹ I am grateful to Dr Peter Forshaw for deciphering the script.

*Figure V: The Trinity Compendium (TCC MS R.14.56), f. 86^v.
Reproduction by kind permission of the Master and Fellows of Trinity College Cambridge.*

3.2. Reading Annotations as Historical Records

Perhaps more than the contents of marginalia, the physical form of annotations exposes the mind-set of early modern readers. It reveals ways in which they handled information on the one hand, and material objects in the form of manuscripts on the other.⁷² In the Trinity Compendium, as in other sixteenth-century manuscripts on natural philosophical topics, note-taking techniques do not appear to be particular to the subject of alchemy or natural philosophy. Nonverbal elements used to mark passages or words in early modern manuscripts in general include underlining, asterisks, quotation marks, brackets (most curiously ‘face brackets’) and hands with pointing fingers (‘manicules’), short verbal indicators such as variations of *Nota* (NB, *Nota Bene*). Systems of numbers and symbols could be employed to associate a passage with a parallel or commentary in the same manuscript or in other volumes. Such remote references were common practice in Tudor times and mixed with discursive or reference marginalia.⁷³ Many of these non-verbal techniques are also present in the Trinity Compendium and, *per se*, not more or less noteworthy than thousands of similar structuring methods in contemporary manuscripts. However, within the present context, that is, in the Trinity Compendium’s unusually heavy annotation and its singular combination of a scholarly readership and alchemical poetry, an abstraction from the notes’ contents to the ways in which they sort, structure and conceive of alchemical thought is informative: it reveals the ways in which scholars, rather than professional alchemist artisans, dissected and understood *alchemica*.

When M.R. James described the volume as “a very ugly shabby book”, he was probably referring to the numerous scribbles and deletions, lines and marks that blemish the pages. At first sight, his seems a just verdict. However, at closer inspection, the sheer number of notes around the “Verses upon the Elixir” in the Trinity Compendium indicates that there simply was not enough space to accommodate all readers’ notes in longhand. The solution devised by the Compendium’s readers appears in a virtual separation of one of its pages (f. 86^v, see Figure V) into its individual parts: the text of the “Verses upon the Elixir” belonged in the middle of the page, added interlinear notes and marginal notes in between and around the same, and non-verbal structural elements scattered all over the page.

⁷² Grafton, “History of Reading,” 148.

⁷³ Sherman, *John Dee*, 81–89, 68. The terms ‘manicule’ for drawings of pointing hands and ‘face brackets’ for brackets in the shape of a profile appear to be Sherman’s coinage.

The first observation to be made here is that verbal cross-references do not refer to line numbers in the “Verses upon the Elixir” or marginal notes beside it, but only to more remote texts or works. This appears to be an economical measure on behalf of the Compendium’s annotators. Written in an abbreviated yet linguistic form, these notes would point any subsequent reader into the direction of related literature, albeit in an exclusive manner, as detailed above.

Further, an attempt to match verbal marginal notes to the relevant passages of the “Verses” shows that marginalia are often positioned at some distance from the passage they comment on. This is due to the fact that, for the succession of readers involved in the volume’s annotation, it was impossible to plan the arrangement of notes, and the allocation of space on the page, with possible future annotations in mind. While initial readers were able to place their notes in the margins directly beside the relevant text passage, they had to find a different way of linking passages and notes once this space was occupied. In the Trinity Compendium readers did not employ symbols, but devised another system of non-verbal cross-references—the very lines cutting through the text which contribute to the manuscript page’s untidy appearance. Therefore, rather than disfiguring the manuscript, these ‘connecting lines’ form a network of cross-references with diverse functions. Similar practices were used elsewhere in contemporary manuscripts, most pertinently by polymath John Dee, whose library and scholarly activities provide various points of reference for early modern reading practices.⁷⁴ In the present copy of the “Verses upon the Elixir” the lines fulfil various functions. Some interconnect terms from the poem to interpret obscure passages. For example, the terms ‘body’ and ‘metal’ are connected in the following passage.

ffor truly it is none other waye of very right
 But *bodie* of bodie & light of light
 Where all the fooles in the worlde sechen
 A thinge that they may neuer maynteyn./
 ffor they wolde haue *metall* out of them
 That neuer was founde of earthely man./

“Verses upon the Elixir”, ll. 39–44⁷⁵

⁷⁴ “[John Dee’s] ‘connection lines,’ which usually appear in manuscripts, cross boldly through the text—on a busy page appearing to cross it out—and reveal a blatant bias towards the utility rather than the aesthetic appearance of a page. The practice is most common in Dee’s alchemical texts.” Sherman, *John Dee*, 88.

⁷⁵ See Figure V (TCC MS R.14.45, f. 86^v), ll. 10 and 13; italics editorial.

In this case the interlinear connecting line functions as a shorthand interpretation. It interprets the body, or substance, necessary for alchemical success, as a metal. It also implicitly determines the error of others, the “fools” mentioned in the third line cited above: according to this connection between the couplets, their search for a metal, as opposed to a different type of substance, is correct. It must be the method or target of their search which precludes alchemical success. Perhaps unsurprisingly, several interlinear and marginal notes, partly written in the exclusive Hebrew code described above, comment upon the same passage. Most noteworthy for current purposes, however, is the fact that a simple connecting line can carry such detailed information.

Other connecting lines on f. 86^v function not so much as a shorthand, but as reader navigation devices. In connecting the text with marginal notes not situated directly beside a pertinent passage, they constitute a simple and effective means of clustering commentary around a pertinent passage when the space available does not accommodate all notes. Indeed, some of these lines reach all the way across the page to a marginal note which must have been added at a fairly late stage in the text’s annotation. Significantly, the marginal notes’ relative positions to each other and distance from the part of the poem they comment upon, together with the different hands involved in annotation, reveal a chronology of notes and readings: a chronicle of the poem’s reception by a defined readership which would be worthy of further investigation in its own right.

A third group of lines employed in the Trinity Compendium’s annotation of the “Verses upon the Elixir” connect marginal and interlinear notes with each other. These lines surpass the previously described ones in their reach. Some of them establish cross-references across folds and page breaks. Occasionally they extend to several terms at the same time, connecting more than two points of reference and thus providing a map for the critical reader’s orientation in the text. Quite frequently this type of physical and interpretative connection of terms by line is motivated by the metaphorical ambiguity of the “Verses”; as in the passage quoted above, many terms designating alchemical materials and processes required translation into practicable terms for use in the laboratory. Similarly, the lines spreading out in a starburst pattern around the term ‘arsenic’ in the following excerpt serve its interpretation.⁷⁶

⁷⁶ See Figure V (TCC MS R.14.45, f. 86^v), ll. 25–26; italics in the transcription editorial.

In *arsenicke* sublimed a waye that is streight
 With M[ercury] calcined .9. tymes his weight

"Verses upon the Elixir", ll. 55–56

Here the connecting lines lead to interlinear and marginal notes as well as other parts of the poem and detail, among other things, procedure (e.g. heating over fire) and other materials to be employed (white, not red *calx*, according to a marginal note at the top right margin). Those lines direct the reader to bibliographical notes whose symbols, in turn, indicate further related literature. Some of the lines have been crossed out by later readers. The readers who removed such a connection from the term 'arsenic', the one word at the centre of this copy of the "Verses upon the Elixir", apparently considered it to be crucial to the alchemical recipe for the philosophers' stone. The fact that the term appears in a passage often isolated in fragmentary copies (described as a potential shortcut to the alchemical secret in Chapter 2 above) is probably not coincidental.

Taken together, the connecting lines and non-verbal annotation elements reveal that this particular group of readers did not perceive the text of the "Verses upon the Elixir" as a linear, chronologically developed construction. The structure of the poem itself exhibits the flexibility, repetitions and circularities exemplary for other works of the genre, as well as the abovementioned characteristic vagueness in style. Early modern readers understood the "Verses upon the Elixir" in stages of close reading, through collation with other alchemical works and, perchance, supplemented with practical knowledge about alchemical processes. Since the manuscript was not designed in its entirety, the need for an efficient form of referencing initiated the combination of notes and interconnecting lines. Unlike the compilation of a separate notebook, these methods of referencing present the most immediate possibility of recording notes and enable readers to build upon the knowledge of others. Annotations in the Trinity Compendium, as scholarly as they may be, form a social and professional means of communication.

Overall, these readers' notes show that their writers were knowledgeable about alchemical practice, but nothing truly suggests that this knowledge was acquired through practice or media other than books. The methods of reading exhibited here coincide with those of scholars studying, among other things, classical, historical, or political texts. Connections with practice like that of John Dee, Samuel Norton and their yet unknown Cambridge contemporaries are intriguing and not unlikely, if yet to be investigated.

With a last look at the copy of the “Verses upon the Elixir” in the Trinity Compendium, one might still ask why none of the readers used line and page numbers to achieve a similar effect. The answer probably lies in these readers’ perception of themselves: they were not employed to produce a commentary, nor did they pursue a specific question or task with their reading, or consciously form part of a larger conversation about alchemical matters. They were individuals who consulted a copy of a text intermittently, yet always with interest. This copy of the “Verses upon the Elixir” in particular is suspended between the individual and the collective (or rather, collected), between old and new traditions, and between deliberation and circumstance.