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"ffor to make Azure as Albert biddes": Medieval English Alchemical Writings in the

Pseudo-Albertan Tradition¹

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Abstract

The aim of the article is to explore the unresearched body of manuscript texts on alchemy in medieval English (15th-century). More specifically, it is concerned with texts that are commonly attributed to the famous medieval scholar Albertus Magnus. Taking as its starting point the work done by Pearl Kibre on Latin alchemical writings attributed to Albertus, the article shows that the English manuscript texts (some 30) are all related to one text in the Latin corpus, the *Semita Recta*. (Kibre lists about 30 texts in Latin.) However, the English texts display varying affinities to the *Semita Recta*: there are literal translations as well as major adaptations, and there are texts that appear to exploit the authority of the *Semita Recta* for advancing completely unrelated discussions. It is also evident that the early English translators and redactors of alchemical texts were particularly interested in practical aspects of alchemy: many of the texts exhibit an emphasis on practical details, whereas the theoretical parts have been excised. Furthermore, the article demonstrates that although the English manuscripts derive from a pseudo-Albertan text most of them do not contain an overt attribution to Albertus. It is thus unclear whether Albertus's renown as an alchemist played a significant part in the circulation of the texts in a vernacular context.

1. Introduction

One of the most characteristic features of medieval alchemy is the spurious attribution of alchemical writings to notable scholars and clergymen of the time. This strategy was adopted to lend credibility and authority to the text. At the same time, pseudepigraphy was a means of concealing the real identity of the author.² A common target of such attributions was the influential 13th-century scholar Albertus Magnus (*c*.1200–1280). Several studies devoted to alchemical writings in Latin have shown that a large number of texts ascribed to Albertus

¹ A version of this article was presented at the conference "The Rising Dawn: The Contribution of Alchemy to Medieval Medicine and Intellectual Life" (University of East Anglia, Norwich, UK, March 21–22, 2002). I am grateful to George R. Keiser and Molly Zahn for reading and commenting upon an earlier version of the article. Naturally, any remaining errors are entirely my own. Part of the research for this article was made possible by a grant from STINT, The Swedish Foundation for International Cooperation in Research and Higher Education (Dnr 00/453).

² Many writers of alchemical texts in the Middle Ages were probably clergymen and monks. For such writers, concealment was of utmost importance. To Franciscans and Dominicans, the practising of alchemy or studying of alchemical texts was forbidden on pain of imprisonment or excommunication, as pointed out by J. R. Partington, "Albertus Magnus on Alchemy" *Ambix* 1 (1937): 3–20, on 13–14. More generally, in England alchemy was legislated against in 1403–1404, a law that was not repealed until 1689; see D. Geoghegan, "A Licence of Henry VI to Practise Alchemy," *Ambix* 6 (1957): 10–17.

circulated in the Middle Ages. The aim of this study is to investigate the extent to which these pseudo-Albertan texts were vernacularised into medieval English,³ and to explore what strategies the early translators and redactors employed in working with the texts.

Albertus Magnus's interest in alchemy has been thoroughly researched by scholars such as Partington, Halleux and especially Kibre.⁴ In some of his authentic works, Albertus recognises the theoretical validity of alchemical practice, but at the same time he admits that he has never seen the difficult processes involved carried out in practice.⁵ Furthermore, Albertus criticises alchemists for relying too heavily on earlier authorities, without verifying the information through first-hand observation, and for presenting their material in obscure, metaphorical language.⁶ For his book on minerals, *De Mineralibus*, Albertus made extensive investigations into alchemical procedure and theory by reading the work of alchemical authorities and by visiting alchemical practitioners.⁷ However, Albertus seems exclusively to have been an observer of alchemical work, rather than an active participant in the procedures: there is no contemporary evidence of Albertus's involvement in alchemical experimentation.⁸

Notwithstanding Albertus's lack of direct involvement in alchemy, alchemical writings attributed to him begin to appear at the end of the 13th century, just after his death, and are found in ever greater numbers in the 14th and 15th centuries. Kibre identifies more than 30 texts ascribed to Albertus; their survival in numerous manuscript copies attests to their popularity. Some of the texts are rare and are more often found under other authors' names, whereas others are consistently attributed to Albertus, such as the *Compositum de Compositis*, the *Alkimia Minor* and the *Semita Recta*. Of these consistently attributed texts, some seem deliberately to emulate the style of Albertus's authentic writings. The *Semita*

³ By 'medieval English', I mean here the English of the 15th century.

⁴ Partington, "Albertus Magnus,"; R. Halleux, "Albert le grand et l'alchimie," *Revue des sciences philosophiques et théologiques* 66 (1982): 57–80; P. Kibre, "Albertus Magnus on Alchemy," in *Albertus Magnus and the Sciences: Commemorative Essays 1980*, ed. J. A. Weisheipl (Toronto: Pontifical Institute of Mediaeval Studies, 1980), 187–202.

⁵ Partington, "Albertus Magnus," 13; Kibre "Albertus Magnus," 194.

⁶ Kibre, "Albertus Magnus," 190.

⁷ D. Wyckoff, *Albertus Magnus. Book of Minerals* (Oxford: Oxford University Press, 1967).

⁸ Kibre, "Albertus Magnus," 195.

⁹ P. Kibre, "Alchemical Writings Attributed to Albertus Magnus," *Speculum* 17 (1942): 499–518; "Further Manuscripts Containing Alchemical Tracts Attributed to Albertus Magnus," *Speculum* 34 (1959): 238–247.

Recta in particular is written in a style resembling that of Albertus's scientific treatises. ¹⁰ This conscious imitation of style in the pseudepigraphic texts in turn probably strengthened Albertus's association with alchemy and alchemical writings.

The first pseudo-Albertan alchemical writings in English appeared in the 15th century, as bibliographical works such as those of Singer, Robbins, and Keiser have shown. These texts are part of a large corpus of vernacularised writings on alchemy produced in this period. The appearance of alchemical texts in English is connected with the larger process of vernacularisation of scientific texts that was taking place in late medieval England. As yet the vernacularisation of alchemical texts is largely unexplored and we know very little how this process relates to the Englishing of other types of scientific writings. A study of pseudo-Albertan texts may provide valuable information on the dynamics of this process and the transmission of alchemical texts.

2. Material and methodology

The primary material of this study are the pseudo-Albertan texts recorded by previous bibliographical surveys. However, I will offer further evidence for the circulation of pseudo-Albertan texts in the vernacular by presenting additional manuscripts of texts not mentioned in these surveys. In my searches for additional text witnesses, I have employed a new powerful CD-ROM tool, the *eVK* produced by L. E. Voigts and P. D. Kurtz, that provides

¹⁰ Halleux, "Albert le grand," 76; see also L. Thorndike, *A History of Magic and Experimental Science* (New York and London: Columbia University Press, 1923), Vol. 2, 571–573.

¹¹ D. W. Singer, Catalogue of Latin and Vernacular Alchemical Manuscripts in Great Britain and Ireland, Dating from before the XVI Century (Brussels: Maurice Lamertin, 1928, 1930, 1931), vols. 1–3, on vol. 1, 155–156; R. H. Robbins, "Alchemical Texts in Middle English Verse: Corrigenda and Addenda," Ambix 13 (1966): 62–73; G. R. Keiser, A Manual of the Writings in Middle English 1050–1500. Volume X: Works of Science and Information (New Haven, Connecticut: The Connecticut Academy of Arts and Sciences, 1998), 3791–3792, 3796.

¹² For more detail on the vernacularisation of alchemical texts, see P. Grund, "Misticall Wordes and Names Infinite": *An Edition of Humfrey Lock's Treatise on Alchemy* (Uppsala University: Unpublished Ph.D. dissertation, 2004); "In Search of Gold: Towards a Text Edition of an Alchemical Treatise," in *Middle English from Tongue to Text. Selected Papers from The Third International Conference on Middle English: Language and Text. Held at Dublin, Ireland, 1–4 July, 1999, ed. P. J. Lucas and A. M. Lucas (Frankfurt am Main: Peter Lang), 265–279. For the vernacularisation of scientific texts in general, see L. E. Voigts, "Scientific and Medical Books," in <i>Book Production and Publishing in Britain, 1375–1475*, ed. J. Griffiths and D. Pearsall (Cambridge: Cambridge University Press, 1989), 345–402; I. Taavitsainen and P. Pahta, *Medical and Scientific Writing in Late Medieval English* (Cambridge: Cambridge University Press, 2004).

incipits to a vast number of scientific texts in medieval English.¹³ In most cases, I have also consulted in person the manuscripts cited in this study. In identifying possible pseudo-Albertan texts, I have been concerned not only with medieval English writings that contain an explicit attribution to Albertus, but also with those texts related to writings found under his name in Latin.

In this kind of study, there are several methodological challenges and caveats. The first problem, and perhaps the most fundamental one, is the shortage or even lack of modern editions of the pseudo-Albertan texts in Latin. I have relied heavily on the available editions, such as those of Borgnet and Kibre, ¹⁴ but these editions are far from complete and in most cases they only contain a canonical text without citing variant readings. ¹⁵ This fact may complicate the identification of some texts belonging to the pseudo-Albertan tradition or even make it impossible since a medieval English text may be based on a non-canonical or a less authoritative version of the Latin text. This is also important to keep in mind when the relationship between a medieval English text and a Latin text is discussed. Textual differences between the English text and the Latin text may not represent adaptations by the English scribe. Rather, the differences may already have existed in the scribe's Latin exemplar. Although it is unclear at what stage a text was reworked, we can get an idea of what versions were in circulation in late medieval England by comparing an English text with the available Latin texts. I have complemented the editions at hand by consulting manuscript copies of some of the Latin texts, but the sheer number of copies has warranted selectivity.

Secondly, as will be shown in 3.2 and 3.3, the medieval English manuscripts present a large number of different versions and stages of the pseudo-Albertan texts, a fact which

¹³ L. E. Voigts and P. D. Kurtz, *Scientific and Medical Writings in Old and Middle English: An Electronic Reference* (Ann Arbor, MI: The University of Michigan Press, 2001), henceforth *eVK*. For a more detailed discussion of this tool, see my review in *ICAME Journal* 26 (2002): 160–164.

A. Borgnet, Alberti Magni, Ratisbonensis Episcopi, Ordinis Praedicatorum, Opera Omnia (Paris, 1898), vol.
 P. Kibre, Studies in Medieval Science: Alchemy, Astrology, Mathematics and Medicine (London: The Hambledon Press, 1984).

There are also several older editions of some of the texts, especially the *Semita Recta*, including L. Zetzner, *Theatrum chemicum* (Ursel, 1602), vol. 2, 485–527; (Strasburg, 1613), vol. 4, 911–928, 929–947, 948–971; and G. Gratarolus, *Alchemiae, quam vocant, artisque metallicae, doctrina* (Basel, 1572), 611–686. A cursory comparison of the editions of the *Semita Recta* shows that they vary very little amongst each other. The editions of Albertus Magnus's writings underway at the Albertus Magnus Institute in Bonn will include a volume (Tome 41) of "Opera dubia et spuria". The work on this volume has not yet been undertaken, and it is unclear what texts will be included (see http://www.albertus-magnus-institut.de/edit1.htm).

sometimes complicates identification. Alchemical recipes offer a special challenge, since recipes that were originally part of a larger treatise could be copied independently. I do not claim that my searches are comprehensive with regard to recipes. I have mainly relied on the eVK, which is limited in the inclusion of recipes, but I have also consulted several manuscript collections of recipes to complement the eVK, including Corpus Christi College, Oxford, 226, Bodleian Library Ashmole 1451 and Trinity College, Cambridge, R. 14. 44.

Finally, I have been inclusive in my recording of manuscripts, hence taking into account 16th-century manuscript texts, if there is evidence suggesting that they may have been copied from medieval English exemplars. In fact, almost half of the manuscripts identified in this study are post-15th-century, which attests to the wide-spread interest in vernacular writings on alchemy in the 16th century. This trend has been noted in other studies of alchemical texts as well. For example, Thomas Norton's *Ordinal of Alchemy* and George Ripley's *Compound of Alchymy*, both written in the 1470s, exist in numerous 16th- and 17th-century copies, but are extant in very few 15th-century manuscripts. ¹⁶

3. Findings

3.1 The Latin and English corpora of pseudo-Albertan texts

As expected, the number of English manuscripts of pseudo-Albertan texts is much lower than that of the Latin texts: Kibre records approximately 100 manuscripts of Latin texts (a few of them containing more than one pseudo-Albertan text), ¹⁷ whereas I have been able to identify approximately 30 English manuscripts, some of which similarly contain more than one text belonging to the corpus. However, an overall comparison of the texts contained in the Latin corpus and their English counterparts reveals several notable features. The most striking trend is that all the vernacular texts that I have been able to identify are related to one text in the Latin corpus: the *Semita Recta*. ¹⁸ There are several factors that might have contributed to this

¹⁶ J. Reidy, *Thomas Norton's* Ordinal of Alchemy (Oxford: Oxford University Press, Early English Text Society 272, 1975), ix–xxi; S. J. Linden, *George Ripley's* Compound of Alchymy (*1591*) (Aldershot: Ashgate, 2001), xvi–xxiii. See also P. Grund, "Misticall Wordes", 30–51.

¹⁷ Kibre, "Alchemical Writings"; "Further Manuscripts."

¹⁸ In using the title *Semita Recta* to refer to this text, I follow e.g. Kibre, "Alchemical Writings," and Singer, *Catalogue of Latin*, vol. 1, 153. Other titles have also been attributed to this treatise, such as *Libellus de Alchimia* (see Borgnet, *Alberti Magni*, 545). Heines adopts the title *Libellus de Alchimia* as in the Borgnet edition, but states that "[t]he principal manuscripts [of the text in question] are known as the 'Semita Recta' group' (V. Heines, *Libellus de alchimia. Translated from the Borgnet Latin Edition* [Berkeley and Los Angeles: University

trend. Of the some 30 pseudo-Albertan Latin texts listed by Kibre, none seems to have enjoyed the popularity of the Semita Recta, which is shown by the large number of manuscripts containing this text. Also, some of the pseudo-Albertan texts in Latin are not found until the 15th century, and may not have been as well-established as the Semita Recta, which appears as early as the 13th and 14th centuries. Despite these facts we might still expect some of the other texts to appear in English. The treatise Compositum de Compositis, for example, survives in Latin manuscripts from the 14th century, and there is a French translation from the 15th century: the first English manuscript I have found is from the 17th century. 19 This also holds true for texts such as Alkimia Minor and De Occultis Naturae, which both survive in several Latin manuscripts from the 14th and 15th centuries.²⁰ It is difficult to pinpoint the exact reasons for this phenomenon. It might of course simply be that manuscript witnesses of some of the texts existed in medieval English but have not survived to our day. However, there are certain inherent features of the Semita Recta that seem to have made it extremely popular in the Middle Ages and later, namely its practical, down-to-earth, primarily metallurgical descriptions of alchemical processes and substances. For example, the Semita Recta describes the characteristics of essential substances in alchemy such as mercury and sulphur, where they might be found and what they might be used for. Furthermore, recipes are provided giving instructions on how to prepare the substances in a variety of ways so that they can be used to produce the elixir or philosophers' stone. Descriptions of this kind

of California Press, 1958], xviii). She subsequently seems to make a distinction between the *Semita Recta* and the *Libellus de Alchimia*, but she never specifies how the two differ. Kibre ("Alchemical Writings", 501) mentions a *Libellus de alkimia*, but only notes briefly about this text that "the plan and exposition are similar to the *Semita recta*". However, later on Kibre confusingly states that *Libellus de alkimia* "bears a close resemblence to the *De occultis naturae*, and to the *Compositum de compositis*" ("Alchemical Writings," 508). In the manuscripts of the *Semita Recta* listed by Kibre ("Alchemical Writings," 511–515), *Semita Recta* is by far the most common title.

¹⁹ Kibre ("Alchemical Writings," 507) lists British Library Sloane 3180 as a 1582 translation of the *Compositum de Compositis*, and Sloane 3630 as a 17th century translation. However, the date '1582' in Sloane 3180 does not seem to refer to this particular manuscript. The two copies and a third copy, Sloane 3684, are intricately related, since they all share the same colophon mentioning 1582. Sloane 3684 and 3630 are written in the same 17th century hand, and there are several indications that suggest that Sloane 3180 may have been copied from Sloane 3684. Consequently, it seems that the three copies stem from a text copied around 1582, which I have not been able to locate. For a fuller discussion of the relationships of these manuscript, see P. Grund, "Misticall Wordes", 85–86. See also P. Grund, "A Previously Unrecorded Fragment of the Middle English *Short Metrical Chronicle* in Bibliotheca Philosophica Hermetica M199" (Forthcoming).

²⁰ Kibre, "Alchemical Writings", 504, 508–509.

would have been of prime importance for practitioners of the art. In many ways, the *Semita Recta* must have been considered a standard work or even handbook of alchemy. This may have made it a prime target for vernacularisation efforts.

Although the pseudo-Albertan texts identified in medieval English are all related to the Semita Recta, the nature of their relationship to this text varies. The manuscript texts fall into three rough categories: 1) translations of the Semita Recta; 2) a reworking of the Semita Recta found under the title Mirror of Lights; and 3) a verse tract entitled Semita Recta. It is important to recognise that these categories are not discrete and that texts also fall into subcategories. This very general classification is simply made to facilitate the discussion of the textual patterns, and I will pursue the interrelationships of the three categories in the sections following. The intention is not to provide word-by-word collations of the manuscripts or establish a stemmatic relationship between them. Rather, I will outline general trends in the material in order to illustrate the complex transmission of many of the manuscripts containing pseudo-Albertan writings. A more fine-grained analysis will have to await further work on the Latin corpus of writings and the forthcoming edition of pseudo-Albertan texts from the Albertus Magnus Institute. Since I will make extensive comparisons with the Latin Semita Recta text, I have included a summary description of the different sections in Semita Recta below. The division is based on the Semita Recta text found in Borgnet; the paragraphs are those of the Borgnet edition.²¹ Throughout the study, I will refer to the sections by the letters (A–E) attributed to them below.

Structure of the Semita Recta

- **A.** Introduction (§1–§9): preface; introduction to the errors of other alchemists; the origin of metals; the validity of alchemy; the 8 precepts; furnaces; vessels.
- **B. Descriptions of substances and recipes** (§10–§29): spirits, e.g. mercury and sulphur; salts; atrament; tartar; verdigris etc.
- **C.** Processes I (§30–§36): theoretical descriptions of sublimation, calcination, dissolution, etc.
- **D. Processes II** (§37–§55): practical application of sublimation, calcination, albification, distillation, etc.
- **E.** Elixirs (§56–§57): recipes for elixirs and transmutation.

²¹ Borgnet, *Alberti Magni*. I exclude from the discussion those sections marked as "additio" in Borgnet since it is unclear how they relate to the main text of the *Semita Recta* and what their textual origin is.

3.2 Translations of the Semita Recta

The first category of texts consists of a fairly straightforward, but diverse, group of writings. It is made up of translations of the whole or parts of the Latin *Semita Recta*. However, even this straightforward category can give us a great deal of information on how pseudo-Albertan manuscript texts were transmitted and used. The manuscripts that I have identified belonging to this category are listed in Table 1.

Table 1. English manuscripts of the Semita Recta

Manuscript	Date c.	Comment
British Library Sloane 353 (ff. 56v–61v)	15th	Incomplete version
British Library Sloane 633 (ff. 124r-	16th(?)	Complete version
138r)		
British Library Sloane 2128 (ff. 1r–5v)	15th	Incomplete version;
		interpolated material ²²
Cambridge University Library Ee. 1. 13	15th	Incomplete version and
(ff. 142v–150v)		reworking
Cambridge University Library, Kk. 6. 30	15th	Incomplete version;
(ff. 12r–30r)		interpolated material
Trinity College (Cam.) R. 14. 57 (Part I,	16th	Preface only
ff. 38r–40v)		
Trinity College (Cam.) R. 14. 57 (Part II,	16th	Incomplete version;
ff. 2r–9v)		interpolated material
Trinity College (Cam.) O. 5. 31 (ff. 1r-	15th	Preface only
7v)		
Bodleian Library Ashmole 1451 (Part V,	15th	Group of recipes
ff. 73r–79r)		
Bodleian Library Ashmole 1486 (Part III,	15th	Preface only
ff. 15r–21r)		
Bodleian Library Ashmole 1490 (ff. 93r-	16th	Group of recipes ²³

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²² The text is followed (ff. 5v–8r) by a number of recipes in Latin and English in the same hand, which I have not found in the Latin *Semita Recta*.

cer review)	
15th	Single recipe in a Latin
	Semita Recta text
15th	Single recipe
15th	Preface only ²⁴
15th	Complete version ²⁵
16th(?)	Preface only ²⁶
16th	Group of scattered
	recipes(?) ²⁷
	15th 15th 15th 16th(?)

^{*} not consulted

The texts listed in the table represent a number of different states or versions of the *Semita Recta*. There seem to be few more or less complete renderings in medieval English. The only versions that are fairly close to the canonical text as given in Borgnet are Glasgow University Library, Ferguson 205, and BL Sloane 633 (see also the discussion of CUL Kk. 6.

²³ Some of the recipes in this group I have not been able to identify as deriving from the *Semita Recta*, on the basis of comparisons with Borgnet (*Alberti Magni*). They may derive from a different version of the *Semita Recta* or they may derive from other sources. Furthermore, the group of recipes begins with a short introduction "Thou shalte wit ther be 7. bodies...", which is close in formulation to the discussion of metallic bodies in the reworked version of the *Semita Recta* found under the title *Mirror of Lights* (see 3.3). However, the introduction is heavily abbreviated, and some of the subsequent recipes are not found in any of the *Mirror of Lights* copies consulted. The exact textual status of this group of recipes is therefore unclear.

²⁴ See M. Pereira, "*Mater Medicinarum*: English Physicians and the Alchemical Elixir in the Fifteenth Century," in *Medicine from the Black Death to the French Disease*, ed. R. French, J. Arrizabalaga, A. Cunningham, and L. García-Ballester (Aldershot: Ashgate, 1998), 26–52, on 48.

²⁵ See M. A. Halversen, *The Consideration of Quintessence*: An Edition of a Middle English Translation of John of Rupescissa's *Liber de consideratione de quintae essentiae omnium rerum* with Introduction, Notes and Commentary (Unpublished Ph.D. Thesis. Michigan State University, 1998).

²⁶ See I. Taavitsainen, *The Index of Middle English Prose. Handlist X: Scandinavian Collections* (Cambridge: D. S. Brewer, 1994), 9.

²⁷ See W. J. Wilson, "Catalogue of Latin and Vernacular Alchemical Manuscripts in the United States and Canada," *Osiris* 6 (1939): 1–836, on 577–580.

30 below). The relationship between these two textual versions and, in addition, BL Sloane 353 requires further explication. The three manuscripts seem to be witnesses of one and the same translation. Halversen notes that Ferguson 205 and Sloane 353 are copied by the same scribe.²⁸ Sloane 353 only contains the *Semita Recta* text up until the discussion of arsenic (Section B, §16), but the sections that the two manuscripts share are extremely close. Sloane 633, which is not discussed by Halversen, seems to have been copied from one of the two or a close relative of the two: it shares many features with Ferguson 205 and Sloane 353.²⁹ For example, Sloane 633 begins the text with the following note: "here begin the three Boakes of the workes of Alchymie with their Chapters all here following" (f. 124r). This heading, which is also found in Ferguson 205 and Sloane 353, 30 refers to the composite nature of the manuscripts. Ferguson 205 and Sloane 353 contain three texts referred to as three books: Rupescissa's The Consideration of the Quintessence, The Book of Alexander Concerning Seven Herbs, Seven Planets and the Semita Recta. Sloane 633 only contains the Semita Recta, but the note is an indication that the other texts did occur in the scribe's exemplar or in an earlier manuscript in the tradition. After the Semita Recta, both Ferguson 205 and Sloane 633 include the same additional text entitled "Hic incipit opus Bonefacij IX cum sequentibus capitulis albis et rubijz". Furthermore, the Semita Recta in the 16th-century Sloane 633 presents the same comment from the translator as the medieval English texts, claiming that the translator/compiler, who is named Mahnedis³² in the medieval English versions but is unnamed in Sloane 633, has compiled the texts while in prison.

Although the version of the *Semita Recta* in Ferguson 205 and Sloane 633 represents a more or less complete textual state, it also exhibits a few idiosyncratic features. In content, it differs from the canonical text in that it does not contain the 8 precepts characteristic of the Latin *Semita Recta* (found under Section A in the list in 3.1). More interesting, however, is the manuscript context of this version of the *Semita Recta*. As mentioned above, in this

²⁸ See Halversen, *The Consideration*, 75.

²⁹ Although BL Sloane 353 now lacks a major part of the text, the manuscript may at some point have contained the missing parts.

³⁰ Halversen, *The Consideration*, 271. However, these two manuscripts read *third* instead of *three*.

³¹ Halversen, *The Consideration*, 321; Sloane 633, f. 138v.

³² Halversen remarks that "[i]t is not clear from the Middle English text who Mahnedis might be" (*The Consideration*, 400). It seems likely that the name is an anagram for "Sidenham". However, I have not been able to identify this man in e.g. A. T. Cameron, *The History of the Sydenham Family: Collected from Family Documents, Pedigrees, Deeds, and Copious Memoranda by the Late Dr. G.F. Sydenham of Dulverton (East Molesey, Surrey: Private Printing by E. Dwelly, 1928).*

version, the *Semita Recta* is only a semi-independent text, appearing as one member in a composite text together with *The Consideration of the Quintessence* and *The Book of Alexander Concerning Seven Herbs*, *Seven Planets*.³³ This particular combination of texts perhaps points to an interest in the *Semita Recta* from a pharmacological perspective: Rupescissa's text deals primarily with medico-alchemy, and *The Book of Alexander* describes herbs and herbal remedies. Although the *Semita Recta* focuses on metallurgical alchemy, its descriptions of basic alchemical procedure would also be of use in medico-alchemy. In both types of alchemy, the manipulation of certain substances was central, either for producing the philosophers' stone or for obtaining the panacea. For example, the *Semita Recta*'s description of the sublimation ('a process of refining') of mercury would be of equal importance for both branches of alchemy since refined mercury could be employed in either discipline. The link between pharmacology and alchemy in the manuscripts may be further evidence for the hypothesis advanced by M. Pereira that pharmacological interests were of special importance in the early stages of vernacular alchemy.³⁴

As Table 1 shows, most of the manuscripts identified do not present full versions of the *Semita Recta*. As mentioned in section 2, alchemical recipes could be copied independently of their original framework. Since a large part of the *Semita Recta* consists of practical sections formulated as recipes, especially in Sections B and D (see list in 3.1), it is not surprising that recipes from this text occur independently in several manuscripts. These recipes appear both as single items (as in Corpus Christi College, Oxford, 226), and as a distinct group of recipes (as in Bodleian Library Ashmole 1451). Irrespective of their manuscript context, the recipes that I have identified are fairly literal translations of the Latin *Semita Recta* text, as the comparison below illustrates.³⁵

³³ As mentioned above, Sloane 633 does not contain these additional texts.

³⁴ M. Pereira, "Alchemy and the Use of Vernacular Languages in the Late Middle Ages," *Speculum* 74 (1999): 336–356, on 345.

³⁵ In my transcription of text extracts from the medieval English manuscripts, the overall principle has been to retain the features of the manuscripts as far as possible. The following specific principles have been employed: I have retained the capitalisation of the original manuscripts, but I have excluded punctuation marks, which are only rarely found in the manuscripts. I have not retained the lineation of the manuscripts. The word division is modern (i.e. *to gedre* has been transcribed as *togedre*). Abbreviations have been expanded and the expansion has been marked with italics. The word has been expanded into the form or spelling of the word that is most common when the word is found in its full form. Curly brackets, '{}', have been employed to indicate supralinear additions in the manuscripts. Cancelled material has been excluded from the transcription.

Medieval English Recipe	Semita Recta
Sal armoniac is sublimed on his wyse grynd	Sal armoniacum sic sublima:
hym with als much comun salt preparat & put	tere ipsum bene cum tanto salis communis
it for to sublime with esy fyre 2 hors	bene præparati sine omni liquore, et pone ad
afterward with stronge fyre al a day at	sublimandum cum lento igne per tres horas,
mowron tak it out & þat þat is sublimed kep	postea cum forti igne per diem: mane extrahe,
& werk with pe fecis in al maner as I saide of	et quod sublimatum est reserva, et per omnia
mercurie & sublime it iij & kep it (Bodleian	fac ut de mercurio docui: cum eisdem (alibi
Library Ashmole 1451, Part V f. 75r)	novis) fæcibus sublima bis vel ter, et serva ad
	partem. (Borgnet, Alberti Magni, 564 [§41])

Although most recipes identified in this study are literal translations, there are reasons to believe that many pseudo-Albertan recipes were not transmitted so literally. It is true that alchemical recipes in medieval English exhibit fairly set conventions, ³⁶ but they are obviously subject to the same kind of textual transmission as other manuscript texts. In fact, recipes may be particularly prone to alteration. Since they were presumably used as sets of instructions for practical experimentation, the recipes may have been modified or changed to comply with the experience of the practitioner.³⁷ This kind of reworking or adaptation would lead to the existence of recipe versions that are very different from their original source. There are indications that this might have happened with some *Semita Recta* recipes. The *eVK* includes a large number of recipes that have affinities with recipes in the *Semita Recta*. However, the differences are so great that they cannot be shown to derive from the *Semita Recta* with any certainty. It is even possible that they represent independent compositions. As a result of this uncertainty, I have only included recipes in my study that could be attributed to the pseudo-Albertan corpus with some degree of confidence.

The two types of text discussed above (i.e. more or less complete copies and recipes) appear at opposite ends of a continuum in terms of representing the complete text of the

³⁶ See P. Grund, "The Golden Formulas: Genre Conventions of Alchemical Recipes in the Middle English Period," *Neuphilologische Mitteilungen* 104/4 (2003): 455–475.

³⁷ See H. Hargreaves, "Some Problems in Indexing Middle English Recipes," in *Middle English Prose: Essays on Bibliographic Problems*, ed. A. S. G. Edwards and D. Pearsall (New York: Garland, 1981), 91–113.

Semita Recta. There are also several versions of the Semita Recta that are heavily abbreviated, incomplete, or reworked, evidencing the middle ground between the extremes. BL Sloane 2128, for example, retains the structure of Sections A and B of the Semita Recta, but omits long passages. Furthermore, this text contains interpolated material that I have not found in any of the Latin versions consulted. For example, Sloane 2128 illustrates the discussion of errors on the part of previous alchemists (Section A) with additional examples, such as the following passage on a particular earth, claimed to exist in Hungary and Cornwall, with the power to turn mercury into gold.

Item y founde sum men þat castyd an erþe apone mercurie cru & congaylyd hym yn a schorte tyme ynto pure sol wythoute eny oþer þyng þe whyche erþe ys yfounde yn mynys of sol & moste yn vngry & yn cornewale and yt ys ylyk{r}e antymony & {yt} wyll molte wyth þe flame of a candell (British Library Sloane 2128, f. 2v)

Like Sloane 2128, CUL Kk. 6. 30 contains a great deal of interpolated material, but it is more complete than Sloane 2128. It contains parts of the preface (Section A), but includes all sections of the *Semita Recta* up until the enumeration of the 8 precepts (see also the discussion of CUL Kk. 6. 30 in 3.3). Subsequently, the manuscript lists a number of alchemical symbols and their explanation (ff. 14r–14v), followed by a discussion of the stone that begins "Our medisyn is a ston bat is no ston & a thyng in kende..." (ff. 14v–15v). These passages are not found in the *Semita Recta*. In f. 16r to f. 17r, the *Semita Recta* resumes, presenting the discussion on furnaces (Section A), but it is found under the title "here begynnethe A gude chapiter namyde dyabesse the whyche is clepede Rebus" and it begins with a statement that is not found in the *Semita Recta*: "Moriene seythe to floridum kepe bou bat I schall schewe the yfe be werke be of fyre...". In ff. 17v–22r, there is a long interpolated discussion of various alchemical procedures illustrated with complex drawings of

²⁹

³⁸ Interestingly, the list of symbols and their explanations closely resembles a list given in red ink before the beginning of the *Mirror of Lights* (see 3.3) in Trinity College, Cambridge, R. 14. 45 (f. 67r).

³⁹ Gray edits parts of f. 14v, claiming it to be the *Mirror of Lights* (D. Gray, *The Oxford Book of Late Medieval Verse and Prose* [Oxford: Clarendon Press, 1985], 142–143). However, this attribution is problematic. Ff. 1r–10v of CUL 6. 30 does contain a version of the *Mirror of Lights*, which will be discussed in 3.3. This text breaks off at 10v, and is followed by recipes and an extract from the *Semita Recta* discussion on furnaces (ff. 11r–11v). As shown above, the text of the *Semita Recta* begins in f. 12r, and the sections in f. 14v must be seen as interpolations in the *Semita Recta*, rather than as part of the *Mirror of Lights*.

furnaces. From f. 22r to 30r, the manuscript contains exclusively *Semita Recta* material, covering most of the discussions in Sections A (from §9, vessels) through E.

CUL Ee. 1. 13 exhibits processes of reworking that are quite different from, though not less complex than, those evidenced in CUL Kk. 6. 30. CUL Ee. 1. 13 leaves out the whole of Section A of the Semita Recta, and instead begins with the discussion of common salt (Section B). Several sections of the Semita Recta have been merged and material from Section A has been transferred to Section D. For example, the description of the characteristics of sulphur has been joined with the passage on the sublimation of sulphur. In addition, CUL Ee. 1. 13 displays several features that link it to the thoroughly reworked version of the Semita Recta found under the title Mirror of Lights (see 3.3). In f. 143v, for example, CUL Ee. 1. 13 includes a recipe on azure that begins with the phrase "ffor to make asure as alberd byddyth", a phrase which is elsewhere only found in the Mirror of Lights. In CUL Ee. 1. 13, the discussion of different kinds of furnaces from Semita Recta (Section A) appears at the very end of the text, as in some manuscripts of the *Mirror of Lights* (see 3.3). However, a cursory collation of the readings of the manuscript and those of the Mirror of Lights and the Semita Recta suggests that it is closer textually to the Semita Recta. A more thorough analysis and collation, which have not been possible within the scope of this study, could shed more light on the textual transmission of this manuscript and its relationship to the Semita Recta and the Mirror of Lights.

Finally, there are five copies in Table 1 that are given the description "preface only". Referring to the text as the *Aqua Vitae*, Keiser describes the whole of the text contained in these manuscripts as a translation of the *Semita Recta*. ⁴⁰ However, a comparison of the *Semita Recta* (as found in Borgnet, *Alberti Magni*) and these manuscripts reveal that only the preface derives from the *Semita Recta* (Section A). ⁴¹ There are no direct or obvious correspondences

⁴⁰ Keiser, *A Manual*, 3796. Keiser does not list Trinity College, Cambridge, R. 14. 57 and Corpus Christi College, Oxford, 244.

⁴¹ In his description of Ashmole 1486, Eldredge simply states "[t]he incipit translates the introduction to Albertus Magnus' 'Semita Recta'", but he does not claim that the whole of the text derives from the *Semita Recta* (L. M. Eldredge, *The Index of Middle English Prose. Handlist IX: The Ashmole Collection, Bodleian Library, Oxford* [Cambridge: D. S. Brewer, 1992], 98). In their respective catalogue entries, Taavitsainen and Mooney follow Eldredge. See Taavitsainen, *The Index*, 9; L. R. Mooney, *The Index of Middle English Prose. Handlist XI: The Library of Trinity College, Cambridge* (Cambridge: D. S. Brewer, 1995), 122.

between the rest of the text and the *Semita Recta* in content. ⁴² Furthermore, the *Aqua Vitae* uses commonplace metaphorical language, which the *Semita Recta* conspicuously lacks. Thus, it does not seem to belong immediately to the pseudo-Albertan corpus, since only the first part appears to derive from the *Semita Recta*. This text should rather be classified as a compilation, which exploits the *Semita Recta* preface perhaps in order to subtly bestow authority on the text.

Naturally, it is difficult to determine whether readers of the copies of the *Aqua Vitae* recognised such an allusion to the *Semita Recta*, since a clear attribution to Albertus or a reference to the title is missing. This raises the more general question of how readers and scribes perceived the texts in the corpus as a whole, a question that is of crucial importance for the understanding of the circulation of pseudo-Albertan texts. It is significant that most of the *Semita Recta* translations in the manuscripts identified in this study are untitled and appear without an explicit attribution to Albertus. Unless the texts were recognised by the scribes and readers as pseudo-Albertan on the basis of the content or some other aspect of the texts themselves, it is thus unclear whether the texts' pseudo-Albertan origin was significant in promoting their circulation or whether features inherent in the texts were more important.

3.3 Mirror of Lights

The text making up the second category of pseudo-Albertan writings is in many ways related to translations or adaptations of the *Semita Recta* such as the ones found in Sloane 2128 and especially CUL Ee. 1. 13. However, this treatise, which is usually found under the title *Mirror of Lights*, has a more complex relationship to the *Semita Recta*, exhibiting a systematic reworking of the *Semita Recta* with a clear goal. I have included a summary description of the structure and content of the *Mirror of Lights* below. I have supplied references to the list in 3.1 to illustrate the connection between the *Mirror of Lights* and the *Semita Recta*. As will be shown in the subsequent discussion, it is crucial to consider the division of the *Mirror of Lights* into the three distinct parts marked in the chart when the text's origin and transmission are traced. Furthermore, a description of the transmission of the *Mirror of Lights* and its structure must also take into account the Latin tradition of this text. Although the *Mirror of Lights* is mainly found in English manuscripts, it is also partly attested in Latin manuscripts. The status of this Latin tradition and its relationship to the English tradition provide vital

⁴² In Bodleian Library Ashmole 1424 (Part I, ff. 7r–7v), there is a heavily abbreviated version of the *Aqua Vitae* without the *Semita Recta* preface. Similarly, Bibliotheca Philosophica Hermetica, Amsterdam, M199 (ff. 282v–284) contains some sections from *Aqua Vitae*, but excludes the *Semita Recta* preface.

Peter Grund. 2006. "ffor to make Azure as Albert biddes': Medieval English Alchemical Writings in the Pseudo-Albertan Tradition." Ambix: The Journal for the Society for the History of Alchemy and Chemistry 53(1): 21–42. (accepted manuscript version, post-peer review) clues to the understanding of the goal of the redaction resulting in the *Mirror of Lights*, and to the transmission of the text in English.

Structure of the Mirror of Lights

• **1st Part** (Only extant in Latin): preface; discussion of the title and of the division of the text; 13 conclusions dealing with alchemical theory; the generation of metals; accidental form and qualities (Cf. *Semita Recta*, Section A.)

• 2nd Part:

- i. Material Conditions: description of required substances; perfect and imperfect metals; the spirits; salts; stones; "flowers" (Cf. Semita Recta, Section B, but excluding the recipes.)
- ii. **Formal Conditions**: description of 9 processes, e.g. sublimation, calcination etc. (Cf. *Semita Recta*, Section C, heavily abbreviated.)
- iii. **Preceptual Conditions**: list of 7 precepts or commandments. (Cf. *Semita Recta*, Section A.)
- 3rd part: recipes (Cf. Semita Recta, Sections B, D, E.)

In the English manuscripts of the *Mirror of Lights* the inclusion of the parts listed in the chart varies greatly. Table 2 shows the manuscripts identified in this study and the parts that they contain.⁴³

Table 2. English manuscripts of the Mirror of Lights

Manuscript	Date c.	Comment
British Library Harley 3542 (ff. 1r–14r)	15th	2nd and 3rd parts
British Library Sloane 316 (ff. 8r–54r)	16th	1st part from Semita
		Recta; 2nd and 3rd parts
British Library Sloane 513 (ff. 155r–168r)	15th	2nd and 3rd parts
British Library Sloane 1182 (f. 33v)	16th	Fragment of 2nd part
British Library Sloane 3580A (ff. 193v–	16th	2nd and 3rd parts
208v)		
British Library Sloane 3580B (ff. 49r–51r;	16th	Incomplete 3rd part ⁴⁴

⁴³ A reworked version of parts of the *Mirror of Lights* is also used as a source for a 16th-century alchemical compilation by Humfrey Lock. See Grund, "Misticall Wordes", 33–35.

Peter Grund. 2006. "'ffor to make Azure as Albert biddes': Medieval English Alchemical Writings in the Pseudo-Albertan Tradition." Ambix: The Journal for the Society for the History of Alchemy and Chemistry

53(1): 21–42. (accepted manuscript version, post-peer review)

54v–56v)		
Cambridge University Library, Kk. 6. 30	15th	2nd and incomplete 3rd
(ff. 1r–10v)		part
Trinity College (Cam.) R. 14. 37 (ff. 115r-	15th	2nd and 3rd parts
147r)		
Trinity College (Cam.) R. 14. 45 (ff. 67r-	15th	2nd and 3rd parts ⁴⁵
77v)		
Trinity College (Cam.) O. 2. 16 (ff. 72r-	15th	Group of recipes from the
73r)		3rd part
Trinity College (Cam.) O. 2. 33 (Part II, pp.	16th	1st part in Latin; 2nd and
1–37)		3rd parts (see Table 3)
Bodleian Library Ashmole 1423 (Part V,	16th	Abridged version of the
pp. 19–55)		2nd and 3rd parts
*Royal Library of Copenhagen, Gamle	15th	Group of recipes from the
Konglige Samling 248 (ff. 1r–1v)		3rd part ⁴⁶
*Yale University, Beinecke, Mellon 43 (f.	16th	Fragment of 2nd part(?) ⁴⁷
1v)		
*Massachusetts Historical Society,	16th	Fragment of 2nd part(?) ⁴⁸
Winthrop 20c (f. 148r)		
	I	

^{*} not consulted

There are interesting trends among the manuscripts. Like the manuscripts of *Semita Recta* translations discussed in 3.2, the manuscripts of the *Mirror of Lights* present several versions or states of the text. Trinity College, Cambridge, O. 2. 16, for example, only consists of a few recipes from Part 3 while Ashmole 1423 is an abridged version of Parts 2 and 3. Moreover,

⁴⁴ The recipes appearing between the groups of recipes from the *Mirror of Lights* (i.e. ff. 51–54r) are not found in any of the more complete copies of the *Mirror of Lights*.

⁴⁵ In f. 76r, there is a reference to p. 155 (f. 84r), where the same hand continues. However, the text there does not seem to be part of the *Mirror of Lights*. Instead, the *Mirror of Lights* continues on f. 76v in a different hand, which is also found elsewhere in the manuscript.

⁴⁶ See Taavitsainen, *The Index*, 5–6.

⁴⁷ See L. C. Witten and R. Pachella, *Alchemy and the Occult: A Catalogue of Books and Manuscripts* from the Collection of Paul and Mary Mellon Given to Yale University Library. Vol. III. Manuscripts 1225 1671 (New Haven: Yale University Library, 1977), 294.

⁴⁸ See Wilson, Catalogue of Latin, 582–583.

half of the manuscripts are sixteenth-century, such as Sloane 3580A and B, but they show clear linguistic signs of having been copied from medieval English exemplars.⁴⁹ It is furthermore notable that only two of the manuscripts in Table 2 attribute the *Mirror of Lights* to Albertus: Sloane 316 and Sloane 513, which in fact identify it as the *Semita Recta*.⁵⁰ In the actual text of the *Mirror of Lights*, there is a recipe (found in most copies that contain more or less full versions of Part 2 and 3) describing how "to make azure as Albert biddes" (R. 14. 45, f. 72r). This recipe is not found in the *Semita Recta*.⁵¹

The most conspicuous feature of the English manuscripts is, however, that a great majority of them lack Part 1 of the *Mirror of Lights*. Despite not containing Part 1, most of the more complete manuscripts of the *Mirror of Lights* still refer to a second and a third part in the actual text, thus implying the existence of a first part. The only two manuscripts that do indeed contain a first part are the sixteenth-century manuscripts Sloane 316 and Trinity College, Cambridge, O. 2. 33. The former contains a translation of the introduction to the *Semita Recta* (I will return to this manuscript below), whereas the latter includes a first part composed in Latin. Trinity College, Cambridge, O. 2. 33 is of special interest in this connection since it points to the importance of considering the Latin tradition of the *Mirror of Lights*. In contrast to the English tradition, few manuscripts attesting to the Latin tradition seem to have survived. Kibre lists no Latin manuscripts of this text, and I have not found the *Mirror of Lights* in Thorndike and Kibre. ⁵² Apart from Trinity College, Cambridge, O. 2. 33, I have been able to identify two manuscripts containing parts of the *Mirror of Lights* in Latin. ⁵³

⁴⁹ Sloane 3580A and 3580B are made by the same copyist, Thomas Potter, probably around 1580.

⁵⁰ Sloane 513 states at the end of the text (f. 168r): "Explicit semita recta Alkymye Alberti".

⁵¹ See, however, the discussion on CUL Ee. 1. 13 in 3.2.

Kibre, "Alchemical Writings"; L. Thorndike and P. Kibre, A Catalogue of Incipits of Mediaeval Scientific Writings in Latin. Revised and Augmented Edition (London: Mediaeval Academy of America, 1963). The Latin text of Part 1 of the Mirror of Lights begins with a quote from the Epistle of James (1:17): "Omne donum optimum descendens est a patre luminum..." (Trinity College, Cambridge, O. 2. 33, Part II, p. 1). Thorndike and Kibre (A Catalogue of Incipits, 982) records a text with a similar incipit. However, the text listed in the entry is not the same as the Mirror of Lights. That text, commonly entitled Donum Dei, appears in a number of anonymous copies or ascribed to alchemists such as John Dastin (cf. Thorndike, A History, vol. 3, 629; Singer, Catalogue of Latin, vol. 1, 323–324; J. Corbett, Catalogue des manuscrits alchimiques Latins [Brussels, 1939], 283). I have consulted three Latin copies of the Donum Dei: Bodleian Library Ashmole 759 (ff. 1r–33v) and Ashmole 759 (ff. 58r–63v), and Ashmole 1384 (ff. 95v–97v), and in addition an English 17th(?) century translation found in Ashmole 1493 (ff. 13r–48v) under the title "Gods Guift". None of these copies are related to the Mirror of Lights.

Table 3. Latin manuscripts of the Mirror of Lights (Speculum Luminum)

Manuscript	Date c.	Comment
British Library Harley 3542 (ff. 35r–41r)	14th-	Incomplete 2nd part; 3rd
	15th	part
Trinity College (Cam.) O. 2. 33 (Part II, pp.	16th	1st part in Latin; 2nd and
1–10)		3rd parts in English (pp.
		11–37)
Corpus Christi College (Ox.) 175 (ff. 9r-	17th	1st part and beg. of 2nd
15v)		part

The first part in Latin attested in Trinity College, Cambridge, O. 2. 33 is also found in Corpus Christi College, Oxford, 175. The Latin text of Part 1 in the two manuscripts introduces the division of the *Mirror of Lights* into three parts and discusses its title. It subsequently proceeds with an adaptation of several descriptions found in *Semita Recta* under Section A, but it explains the largely theoretical issues in greater detail than in the *Semita Recta*, dividing the material into thirteen conclusions. Although this part is only attested in two manuscripts

A text under the title of *Mirror of Lights* also appears attributed to Roger Bacon. In Bodleian Library Ashmole 1486 (Part 4, ff. 17r–18v), some extracts are followed by the note "I coppyed this afforsaide woorke oute of an olde booke of ffryar Roger Bacon beinge annexed to a booke of his intituled y^e Mirror of Lights written in anno 1555". Similarly, in Glasgow University Ferguson 205, which contains a version of the *Semita Recta* (see 3.2), a note has been added in a 16th-century hand: "The theoricke parte, of the extraction of the quinte essence, of Raymonde Lully; Otherwise callid, ye mirror of light of Roger Bacon" (see Halversen, *The Consideration*, 101). Presumably, these notes point to a confusion with *Speculum Alchimiae* 'The Mirror of Alchemy', a text which is frequently found under Bacon's name (see Thorndike and Kibre, *A Catalogue of Incipits*). This text, however, is not related to the *Mirror of Lights* discussed in this section.

There is also a French 16th-century (probably copied betwen 1579 and 1582) version of the *Mirror of Lights* in Wellcome Institute, London, MS 519 (see S. A. J. Moorat, *Catalogue of Western Manuscripts on Medicine and Science in the Wellcome Historical Medical Library. Part I. Mss. Written Before 1650 A.D.* [London: Wellcome Historical Medical Library, Wellcome Institute of the History of Medicine, 1962], 364). It basically contains Part 2 of the *Mirror of Lights*, exhibiting some features that are not found in any of the English manuscripts. For example, the *Semita Recta* has eight precepts whereas the *Mirror of Lights* contains seven since it merges what were originally two separate precepts in the *Semita Recta*. However, Wellcome MS 519 contains eight precepts, but not the eight of the *Semita Recta*. Rather, it splits the lengthy sixth precept of the *Mirror of Lights* into two precepts, six and seven.

and exclusively in Latin, its structure and content strongly suggest that it was an original part of the *Mirror of Lights* and not a later addition. It is significant, however, that the *Mirror of Lights* seems primarily to have circulated without Part 1 in medieval English. I will return to this issue below.

Unlike Part 1, Parts 2 and 3 are well-represented in medieval English manuscripts. These parts of the *Mirror of Lights* also present a restructuring of *Semita Recta* material. The structure of Part 2 is based upon three conditions, or prerequisites, of alchemical practice: material, formal, and preceptual conditions. These conditions are drawn together from various locations in the *Semita Recta*. Notably, whereas the *Semita Recta* mixes practical and theoretical issues, the *Mirror of Lights* focuses in Part 2 on the purely theoretical questions; practical issues are postponed to Part 3.⁵⁴ This transformation of the text is illustrated in the text comparison given below.

Mirror of Lights

[2nd Part of Mirror of Lights]

fflour of Attrament is made of attrament bat is a blak erthe hauyng the sauour of Sulphur be calcinacion And bat flour is made a reed water with the which spiritz and bodies are rubified into rede colour euerlastand (Trinity College [Cam.] R. 14. 45, f. 68v)

[3rd Part of Mirror of Lights]

Flour of arnament is this preparat put berof yn a potte half full and grynde it smale and close it well and set yt yn a furneys and gyve it lent fire by iij houres tylle the pot wex rede And in soche fire lete it stonde by a day and a nyght & loke it wex colde an hole day and ben shall bou haue a rede floure And when it is solued ynto water it wole rubifie bodies

Semita Recta

Atramentum est terra nigra, odorem habens sulphureum, cum crematur in igne: mutatur ejus color niger in rubeum per calcinationem, quem numquam amittit de cætero. Recipe atramenti triti quantum vis, et pone in ollam usque ad medium, vel ad summum, et claude cum coopertorio, et argilla linias, et dessicatum pone in furno calcinationis, et da ignem primo lentum per tres horas, postea fortiorem tribus horis, donec tota olla rubescat, et in tali calore stare permitte per diem et noctem, et cave ne liquefiat, postea permitte infrigidari extrahe, tunc habebis atramentum rubrum, quod vocatur flos atramenti. Reserva ergo: nam quando solutum est in aquam, tunc rubificantur spiritus et corpora cum eo

⁵⁴ The theoretical issues presented in Parts 2 and 3 are very different from those presented in Part 1. They have a basically practical orientation since they consist of descriptions of processes and substances.

& sperites and þat colour wole neuere be	colore rubeo, quem numquam amittent.
distroied (Trinity College [Cam.] R. 14. 45,	(Borgnet, Alberti Magni, 556 [§22])
f. 71v)	

As may be seen, the *Semita Recta* brackets a section of practical instructions with descriptive sequences (marked in bold face), whereas the *Mirror of Lights* groups the descriptive sections in Part 2, and the practical passages in Part 3. Although the recipe in this example ends with some more descriptive remarks, it may be noted that this descriptive sentence concerns the practical use or application of the result of the procedure described. Such statements of result and application are an integral part of the structure of recipes, as I have shown elsewhere. The goal of the redaction thus seems to have been to provide a text that clearly separated theoretical or descriptive sections from practical passages. Such a division may have had a practical purpose: it would enhance the text's usefulness as a handbook or reference work.

Although the *Mirror of Lights* obviously derives from the *Semita Recta* (as the above comparison shows), the derivative nature of the *Mirror of Lights* is not made explicit in any of the manuscripts of the *Mirror of Lights*. However, the relationship between the two seems to have been identified by several scribes or early users of the manuscripts. Three copies are of special interest in this respect: CUL Kk. 6. 30, BL Sloane 513 and Sloane 613. In CUL Kk. 6. 30 and Sloane 513, which are closely related textually, the *Mirror of Lights* is followed by versions of the *Semita Recta*, both beginning with the discussion about furnaces (end of section A) (see also CUL Ee. 1. 13 in 3.2). Sloane 513 (ff. 168v–177r) contains a Latin version covering the *Semita Recta* from the passages on the furnaces to the discussion about elixirs in Section E. Thus the Latin text overlaps to a large extent with the *Mirror of Lights*. However, in ff. 177v–178r, the eight precepts from earlier in Section A of the *Semita Recta* have been supplied. This addition may be a compensation for the omission of the *Preceptual* conditions (corresponding to the precepts) in Sloane 513's version of the *Mirror of Lights*.

CUL Kk. 6. 30 presents a similarly complicated structure (see also 3.2). After the discussion of furnaces, a version of *Semita Recta* in English begins with the preface and continues up until the enumeration of the eight precepts in Section A. In this passage, the text states "Nowe se bi preceptes at bis sygne beforseyd" (CUL Kk. 6. 30, f. 14r). The particular

⁵⁵ Grund, "The Golden Formulas", 470–471.

⁵⁶ Interestingly, the discussion of furnaces is one of the sections that are not included in the *Mirror of Lights* at all.

sign given is then found in the margin of the *Mirror of Lights* in the same manuscript (f. 4v), where the preceptual conditions, i.e. the precepts, are found. This reference is a clear indication that at some point the close relationship between the *Mirror of Lights* and the *Semita Recta* was recognised (possibly by the scribe of CUL Kk. 6. 30).

The connection between the *Semita Recta* and the *Mirror of Lights* is also shown in Sloane 316, which contains Parts 2 and 3 of the *Mirror of Lights* but a first part from the *Semita Recta* (as pointed out above). It is likely that the *Vorlage* of Sloane 316 or a manuscript earlier on in the tradition only contained Parts 2 and 3 of the *Mirror of Lights*. At some point, it must have been noticed that the *Mirror of Lights* was very close to the *Semita Recta*, but that it did not contain the introductory material found there. This recognition led to the addition of material from the *Semita Recta* in Sloane 316. However, this procedure was not mechanical. The eight precepts, which belong to the introduction of *Semita Recta* (Section A), have not been included, probably because they are enumerated under the preceptual conditions, found in Part 2 of the *Mirror of Lights*. Thus the traditions of the *Semita Recta* and the *Mirror of Lights* seem to have been intricately interrelated, and a detailed collation of the manuscripts from the two traditions may reveal even stronger evidence of this intermixing. ⁵⁷

The most complicated aspects of the *Mirror of Lights* remain to be addressed, namely its Latin tradition and its origin.⁵⁸ As noted above, I have only identified three copies of this text in Latin, none of which are complete. Two 16th–17th copies (Trinity College, Cambridge, O. 2. 33 and Corpus Christi College, Oxford, 175) basically contain the first part in Latin. Corpus Christi College, Oxford, 175 also includes some sections of Part 2. The only Latin text that I have found containing most of Parts 2 and 3 is BL Harley 3542.⁵⁹

⁵⁷ See also the discussion of CUL Ee. 1. 13 in 3.2.

⁵⁸ The abridged version of the *Mirror of Lights* in Bodleian Library Ashmole 1423 (Part V, p. 55) contains the following note: "Hear endethe y^e Abridgemente of y^t noble worke cawllede {called} Speculum Luminum y^t was wrytten as sayethe myne Auctor in y^e yeare 1474". It is uncertain how much credibility should be afforded this statement. Several of the manuscripts, especially the Latin part of BL Harley 3542 (discussed further below), may predate 1474.

This text also contains both the *Semita Recta* text in Latin and the medieval English *Mirror of Lights*. The *Mirror of Lights* text in English begins the manuscript (ff. 1r–14r), but it is written in a hand different from, and probably later than, most of the other texts in the manuscript. The Latin *Semita Recta*, which is found in ff. 17r–25v, is incomplete, lacking most of Section A. After an unidentified tract on alchemy, the manuscript states in f. 35v: "Ista que secuntur pertinent ad viam Alberti superius scripta[m?] & que ibi deficiunt hic implebunt" 'The sections that follow pertain to the path of Albertus described above and the things that are missing there these sections will supply'. There is no identification at this point, but the text that follows contain most of Part 2 in

Interestingly, the Latin *Mirror of Lights* in this manuscript ends with four verses in medieval English (f. 41r).⁶⁰ The same verses are also found in the English manuscripts Trinity College, Cambridge, R. 14. 45 (f. 77v) and O. 2. 33 (p. 37), the English version of *Mirror of Lights* in Harley 3542 (f. 14r), and in Gaml. Kgl. Saml 248 (f. 1v).

Although the full text of the Mirror of Lights is not represented in any Latin manuscript and although there seem to be very few Latin manuscripts in all, it is still easier to posit that the reworking of the Semita Recta into the Mirror of Lights was originally made in Latin and then translated into medieval English, rather than the other way around. There is no evidence for Part 1 of the text in English, and even though the Latin manuscripts containing Part 1 are relatively late (16th and 17th centuries), Part 1 is an integral part of the Mirror of Lights from a structural perspective, as shown above. Furthermore, the English manuscripts refer explicitly to a part 2 and a part 3, thus indicating that there must have been a Part 1 at some point. It is therefore unlikely that the first part is a later addition. Also, as remarked above, Part 2 and 3 do exist in Latin in MS Harley 3542. It is, however, noteworthy that so few Latin texts seem to exist. Naturally, it may simply be that Latin manuscripts of the text have not survived. A possible reason for this phenomenon is that the Latin manuscripts were very popular and extensively used, and hence, owing to extensive employment as handbooks, they have not survived. On the other hand, considering the relatively large number of extant manuscripts in medieval English, one would have expected more Latin manuscripts, containing more or less the full text, to have survived if the circulation was wide. A clearer picture will probably emerge once all the Latin manuscripts of the Semita Recta have been thoroughly researched, which the Editorial Project at the Albertus Magnus Institute in Bonn promises to do. Some of the manuscripts classified as Semita Recta by Kibre may on closer inspection turn out to be copies of the *Mirror of Lights*. 61

No matter what its precise origin is, the number of English manuscripts that have survived is an indication that the English *Mirror of Lights* enjoyed great popularity in the 15th century. In a vernacular context, it even seems to have been more popular than the ordinary *Semita Recta* text, judging by the number of extant manuscripts. Furthermore, it must be noted that like many of the medieval English versions of the *Semita Recta*, the *Mirror of*

Latin of the *Mirror of Lights*, beginning with the description of stones. It leaves out the preceptual conditions, but includes a majority of the recipes found in Part 3.

⁶⁰ Herid be god & blessid mote he be | That heyist sit in trinite | Here endit pe myrrour of lyCtenys | The wyche gladyth all wyttys (BL Harley 3542, f. 41r).

⁶¹ Kibre, "Alchemical Writings"; "Further Manuscripts."

Lights has a basically practical orientation, since the first part dealing with alchemical theory is not found in any of the medieval English versions. As noted above, the theoretical parts that do exist mainly consist of descriptions of processes and substances, that is, information that would be of practical use. In addition, most of the processes described in the Mirror of Lights are of an introductory nature. These features suggest that the manuscripts of the Mirror of Lights were used as handbooks or easy reference works of basic alchemical practice. This idea is perhaps supported by the general strategy of redaction exhibited in the Mirror of Lights. As noted above, the separation of description or theory and practical instructions probably contributed to the text's usefulness as a reference tool.

3.4 Semita Recta in verse

The third and final category of *Semita Recta* texts in English is made up of two manuscripts (listed in Table 4 below) containing a verse tract called the *Semita Recta*, with the addition "Albertus peribet testimonium" 'Albert bears witness'.

Table 4. *English manuscripts of* Semita Recta (*verse*)

Manuscripts	Date c.	Comment
Trinity College (Cam.) R. 14. 44 (Part IV,	15th	
ff.15v–17r)		
British Library Sloane 3580B (ff. 183v-	16th	Copy of R. 14. 44?
184v)		

I have not been able to find any Latin copies of this text. ⁶² The tract is a verse dialogue about a process to produce an elixir, which takes place between Albertus and the Queen of the Elves in a "weldernesse" outside Damascus. Most of the substances and necessary processes are given in code. Some of them are straightforward anagrams, whereas others are more opaque and may have become corrupt through transmission: the two copies disagree in a number of anagrams. A passage of this dialogue is given below to illustrate the tenor of the tract. I have supplied tentative explanations of the anagrams within square brackets in the margin. ⁶³

⁶² Cf. Keiser, A Manual, 3791; R. M. Schuler, English Magical and Scientific Poems to 1700: An Annotated Bibliography (New York & London: Garland, 1979), no. 3.

⁶³ For a full edition and discussion of this text, see P. Grund, "Albertus Magnus and the Queen of the Elves: A 15th Century English Verse Dialogue on Alchemy," *Anglia* (forthcoming).

Than seke be herte of a beeste is clepyd <u>Iamoriltu</u> [=vitriol?]

And anober Retelas ys grey of hew [=saltpeter?]

Dystylle a water of hem ij thanne

In a body of glas as bou wel kanne

Caste awey bat water for yt ys nowt

but wyth be 2 bes werkes shal be wrout

how proporcyon ze be bestys tweyne

Thanne answerde sche ageyn

Of þe herte of <u>Iamoryltu</u> 1 li þerfore

and of Retelas half as meche or more

And how oftyn xal be Erupus be so dy3th [=sulphur?]

Tyl yt ys waxe nere why3th

Take banne Animul good & pure [=alum?/(luna?)]

and dyssolue hym in 30ur water sure

half an vnce & 3 z of <u>erucaem</u> perto [=mercury?]

and Ioyne hem all togedre so

(Trinity College, Cambridge, R. 14. 44, Part IV, ff. 16v–17r, ll. 49–64)

The title of this tract and its relationship to the prose *Semita Recta* raise some problematic issues. It has been described by previous research as a verse version of the *Semita Recta*, but there are several problems involved in such an attribution.⁶⁴ The full title of the text needs to be considered in this connection: "Semita Recta Albertus peribet testimonium" 'The Right Path Albertus bears witness'. The title does not seem to present a straightforward attribution to Albertus: the title simply indicates that Albertus attests to the validity of the process, i.e. he bears witness that it constitutes the right path (i.e. "semita recta"). The structure of the poem seems also to imply that there are several layers in the poem: the first eight lines establish what constitutes the right path in the eyes of the 'I' or the author of the poem. The actual retelling of Albertus's meeting with the Queen of the Elves does not begin until line 9. The 'I' of the poem and Albertus do not appear to be the same person, since the introduction to the dialogue is cast in the third person (e.g. "Albertus knew here ful wel I wene | for oftyn beforn he had here sene"). Instead, it seems that the 'I' of the poem is simply retelling Albertus's

⁶⁴ Singer, Catalogue of Latin, vol. 1, 156; Schuler, English Magical, no. 3; Keiser, A Manual, 3791.

experience, which he has heard of or read about. Furthermore, it may be noted that there is no procedure in the prose Semita Recta that is exactly parallel to the one that is expounded upon by the Queen of the Elves. The verse Semita Recta discusses an elixir produced by the mixing of mercury and sulphur. Such procedures are also found in the prose Semita Recta. However, instructions to employ mercury and sulphur are commonplace in alchemical texts, and there is no obvious connection between the specifics of the two texts.⁶⁵

By giving the dialogue the title Semita Recta, the author may of course be alluding to the popular prose text, but there is no indication that the intention was to write a verse version of the prose Semita Recta. Furthermore, the verse dialogue does not seem to be pseudepigraphic, i.e. it is not claiming that it was written by Albertus Magnus, and thus it is only indirectly related to the corpus of pseudo-Albertan writings. At the same time, it may employ the fame of Albertus as an alchemist and the renown of the prose Semita Recta to gain authority and credibility. In this way, the verse tract attests to the almost mythical status that was assigned to Albertus in the later Middle Ages.⁶⁶

Another significant feature of this text is its appearance in verse in a vernacular setting. The dialogue structure of this verse tract is attested elsewhere in the tradition of alchemical verse writings. For example, F. S. Taylor has edited a medieval English dialogue between Morien and Merlin in verse with a very similar set-up and where the substances appear in code.⁶⁷ Furthermore, as pointed out in section 1, there was a strong tradition of alchemical poetry in England. For example, the two major English writings on alchemy in the 15th century, Norton's Ordinal of Alchemy and Ripley's Compound of Alchemy, were both written in verse. This verse tract thus seems firmly anchored both in the tradition of alchemical writing in general, and more importantly in a vernacular tradition of alchemical writing.

⁶⁵ Again it must be pointed out that I have used the canonical version found in Borgnet (Alberti Magni) for the comparisons. Naturally, there may exist, or have existed, a version which contained the procedure outlined in the verse dialogue.

⁶⁶ For Albertus's legend status during the Middle Ages and later, see P. Eckert, "Albert-Legenden," in Albert der Grosse, seine Zeit, sein Werk, seine Wirkung, ed. A. Zimmermann (Berlin and New York: Walter de Gruyter, 1981), 1–23.

⁶⁷ F. S. Taylor, "The Argument of Morien and Merlin: An English Alchemical Poem," *Chymia* 1 (1948): 23–35. A fragmentary version of this dialogue is also included in E. Ashmole Theatrum Chemicum Britannicum (London, 1652), 427-428.

4. Summary and conclusions

I have shown that a sizeable number of manuscripts containing pseudo-Albertan texts on alchemy circulated in the 15th century in English. This fact attests to the popularity and importance of the pseudo-Albertan texts in the vernacular. Furthermore, the manuscript texts recorded clearly illustrate how alchemical texts were transmitted in vernacular contexts. Some texts constitute fairly complete and literal translations of the Latin text (as given in the Borgnet edition), whereas others have a more complex transmissional history of reworking and adaptation. The existence of a large number of manuscripts of the thoroughly reworked *Semita Recta*, found under the title *Mirror of Lights*, demonstrates that the medieval English corpus of pseudo-Albertan writings was to a certain degree independent from the Latin corpus and does not mirror the characteristics of it precisely.

The most conspicuous trend in the material is that many of the medieval English manuscripts have a basically practical orientation. The *Semita Recta* in itself constitutes a practical introduction to alchemical practice and, to some extent, theory. However, many of the manuscripts in medieval English exhibit an even more predominant practical focus, since they omit many of the theoretical issues. This tendency is especially noticeable in the *Mirror of Lights*, but also in some of the translations of the *Semita Recta*. This phenomenon suggests that the texts were employed as practical handbooks or reference works. Similar strategies have been noted in some scribes' treatment of medical texts in the 15th century, although there does not seem to be a general trend in medical material.⁶⁸

Another important characteristic of the pseudo-Albertan corpus in medieval English is that few of the texts in the medieval English manuscripts are explicitly attributed to Albertus or contain an overt reference to their pseudo-Albertan origin. The connection to Albertus or to the *Semita Recta* is recognised in a few of the manuscripts of the *Mirror of Lights*, but the majority of the texts, especially the translations of the *Semita Recta*, reveal no clues as to their pseudo-Albertan origin. It is thus unclear whether Albertus's renown as an alchemist played a role in the circulation of these prose texts. However, that Albertus's name bestowed authority on a text is perhaps evidenced by the verse dialogue between Albertus and the Queen of the

⁶⁸ P. Pahta, *Medieval Embryology in the Vernacular: The Case of* De spermate (Helsinki: Société Néophilologique, 1998), 62–72; I. Taavitsainen, "Transferring Classical Discourse Conventions into the Vernacular," in *Medical and Scientific Writing in Late Medieval English*, ed. I. Taavitsainen and P. Pahta (Cambridge: CUP, 2004), 37–72, on 68.

Elves. This text does not seem to be directly related to the pseudo-Albertan corpus, since it does not appear to claim to be written by Albertus or derive from a pseudo-Albertan text. Yet, it exhibits how Albertus's fame as an alchemist was exploited in a vernacular setting.

Our knowledge of the vernacularisation of alchemical texts into English is still limited. However, this study points to a number of interesting trends as concerns the dynamics of this process, especially the emphasis on practical alchemy. These trends need to be further explored in microlevel studies of individual texts as well as in macrolevel studies of text corpora ascribed to certain authors, of genres in alchemical writing, and of the manuscript environment of alchemical texts. These approaches to alchemical writing in the vernacular will undoubtedly provide keys to the understanding of the transmission of texts and the dissemination of alchemical learning in the late Middle Ages.