



UNIVERSIDAD DE MÁLAGA

FACULTAD DE FILOSOFÍA Y LETRAS

TESIS DOCTORAL

*Early Modern English Scientific Text Types:
Edition and Assessment of Linguistic Complexity in
the Texts of MS Hunter 135 (ff. 34r–121v)*

AUTOR: JESÚS ROMERO BARRANCO

DIRECTOR: JAVIER CALLE MARTÍN

PROGRAMA DE DOCTORADO EN LINGÜÍSTICA, LITERATURA Y TRADUCCIÓN

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UNIVERSIDAD
DE MÁLAGA

AUTOR: Jesús Romero Barranco

 <http://orcid.org/0000-0001-6263-3872>

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UNIVERSIDAD
DE MÁLAGA

Facultad de Filosofía y Letras
Departamento de Filología Inglesa,
Francesa y Alemana
Javier Calle Martín
jcalle@uma.es

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En calidad de director y tutor de la Tesis Doctoral titulada 'Early Modern English Scientific Text Types: Edition and Assessment of Linguistic Complexity in the Texts of MS Hunter 135 (ff. 34r–121v)', realizada por D. Jesús Romero Barranco, doy el visto bueno para su lectura y defensa.

Javier Calle Martín

Campus de Teatinos, s/n. 29071- MÁLAGA. Telf. 952 13 17 86 Fax. 952 13
18 23

UNIVERSIDAD
DE MÁLAGA



To my mother, the bravest person I have ever known

To my father, for having been always by my side

To Paola, the best partner I have ever imagined

A mi madre, la persona más valiente que jamás conocí

A mi padre, por haber estado siempre a mi lado

A Paola, la mejor compañera que jamás imaginé





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Writing a PhD dissertation is a tough task, and every student who has faced this fascinating challenge should agree on the fact that it is an activity in which the PhD candidate is somewhat secluded, usually overwhelmed by the great number of books and articles to be read prior to the beginning of the work. Moreover, if we focus on the specific task of a PhD student who intends to do research in Manuscript Studies, we find that he may be in front of a witness that has been ignored for centuries, being about to be the first person to unveil the secrets that it may hide.

However, I must say that even though I have spent a huge amount of time on my own with books and articles, as well as with the manuscript with which this dissertation is concerned, I have not felt alone at all. This feeling is particularly owed to Dr Javier Calle-Martín, with whom I started working after I finished my Degree in English Philology. Through him, I took part in the projects mentioned above and had access to the early Modern English unedited material on which I have been working since then. Over the years, Javier Calle-Martín has been not only my teacher and my supervisor, demonstrating an impressive background in Historical Linguistics and a wide research experience, but also a good friend of mine, being always supportive and understanding in both academic and personal matters. He deserves sincerest gratitude.

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La redacción de una Tesis Doctoral es una tarea difícil, y todo estudiante que se haya enfrentado a este apasionante reto debería estar de acuerdo en que es una actividad en la que el doctorando está de alguna manera recluido, a menudo abrumado, por la gran cantidad de libros y artículos que leer. Además, si nos centramos en la tarea específica del estudiante que pretende hacer investigación en Estudios de Manuscritos, descubrimos que quizás se encuentre ante un manuscrito que ha sido ignorado durante siglos, estando a punto de ser el primero en descubrir los secretos que éste pueda albergar.

Sin embargo, debo decir que, aunque he pasado mucho tiempo entre libros, no me he sentido solo. Ello se debe especialmente al Dr. Javier Calle Martín, con quien empecé a trabajar cuando finalicé mi Licenciatura en Filología Inglesa. A través de él, formé parte de los proyectos bajo su coordinación y tuve acceso al material inédito en el que he estado trabajando desde entonces. Con el paso de los años, Javier no sólo ha sido mi profesor y mi supervisor, demostrando un amplio conocimiento en lingüística histórica y una gran experiencia en investigación, sino que también ha sido un buen amigo, siempre servicial y comprensivo tanto en asuntos académicos como personales. Se merece el agradecimiento más sincero.

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INTRODUCTION

The present PhD dissertation is entitled *Early Modern English Scientific Text Types: Edition and Assessment of Linguistic Complexity in the Texts of MS Hunter 135 (ff. 34r–121v)*. It studies early Modern English scientific writing, focusing on the edition, corpus compilation and assessment of linguistic complexity of two early Modern English medical texts types, i.e. a surgical treatise and a collection of medical recipes. For the purpose, a hitherto unedited volume, MS Hunter 135 (ff. 34r–121v, henceforth H135) has been selected. This witness is appropriate for such a study as it contains a surgical treatise and a collection of medical recipes, allowing for the comparison of both text types in the History of English.

Research framework

This research is part of two different projects. The first is an I + D + I national research project supervised by Dr Javier Calle-Martín (University of Málaga), funded by the Spanish Ministry of Economy and Competitiveness (project FFI2014–57963–P) and entitled “Corpus electrónico de manuscritos ingleses de índole científica: el período moderno temprano (1500–1700). This project is a continuation of two previous national projects:

- “Corpus electrónico de manuscritos ingleses medievales: textos científicos y técnicos”, funded by the Spanish Ministry of Science and Innovation (project FFI2011–26492) and supervised by Dr Javier Calle-Martín.
- “Desarrollo del corpus electrónico de manuscritos medievales ingleses de índole científica basado en la colección hunteriana de la Universidad de Glasgow”, funded by the Spanish Ministry of Science and Innovation (project FFI2008–02336/FILO) and supervised by Dr Antonio Miranda-García.



The second project, also supervised by Dr Javier Calle-Martín, is funded by the Autonomous Government of Andalusia, entitled “Desarrollo del corpus electrónico de referencia de inglés científico-técnico: el período moderno temprano, 1500–1700” (project P11-HUM7597). This project is a continuation of a previous project entitled “Corpus de referencia del inglés científico-técnico en el periodo medieval inglés” (project P07-HUM-2609), also funded by the autonomous Government of Andalusia.

These projects pursue a twofold objective: a) the digitisation and diplomatic transcription of early Modern English hitherto unedited scientific treatises; and 2) the subsequent compilation of a POS-tagged corpus, which may be safely used as the input for the automatic retrieval of linguistic information.

Socio-historical context

H135 was written in the first half of the sixteenth century, at the very beginning of the early Modern English period, a crucial stage in the history of English with regard to linguistic standardisation (Taavitsainen and Pahta 1998: 162; Gotti 2001: 221).

From a socio-historical viewpoint, different social strata are found, with the royal family at the upper level and the poor at the lowest. Between these two, however, other layers are observed, whose position would directly depend on their possession (or not) of land (Sharpe 1997: 181–204). Furthermore, there were other professions through which people could make a living, law and medicine standing out. Among the medical practitioners, we may distinguish between learned (i.e. physicians, surgeons and apothecaries) and amateur practitioners (i.e. village wise women, white witches, quakers and empirics, among others). While the former were acquainted with the medical works of classical authors and practised medicine as a profession, the latter based their knowledge on popular culture and not always practised medicine exclusively, but in combination with other professional activities (Copeman and Charles 1960: 32; Wear 2000: 26).



The distinction between learned and not learned practitioners is crucial for the understanding of the medical texts produced in the period. While learned practitioners started to produce medical texts in the vernacular with the translation of Latin, French, Greek and Arabic material into English, the latter produced texts orally transmitted from generation to generation, this tradition going back to the Old English period (Taavitsainen 1994: 329, 2002: 205; Taavitsainen and Pahta 1998: 157; Pahta 2001: 208). In addition, the early Modern period is particularly important in the history of English medical writing, as it is the moment in which the production of these texts evolved from scholasticism to empiricism, that is, from the medieval scholastic science that relied on classical authors such as Galen or Hippocrates, to new ways of constructing knowledge that were based on observation and cognition (Taavitsainen 2002: 204).

Edition and corpus compilation

The edition of historical texts has been of paramount importance in order to analyse the way in which science was produced and disseminated at the time. Thus, the labour of the editor is important inasmuch as different decisions will eventually produce different editions, which will ultimately have different usages. According to Tanselle, there are two basic procedures: 1) the editor maintains a considerably passive role of preserver and purveyor; or 2) the editor becomes the active repairer of the damages wrought by time (1995: 16). From the historical linguistics viewpoint, therefore, the first methodology is recommended, as linguists are offered the primary source to study the accidentals of a language produced in a particular period, as well as the practices of scribes (or writers).

Regarding the edition in the present PhD dissertation, semi-diplomatic principles have been followed so as to provide the linguist with a faithful reproduction of the original, editorial intervention kept to a minimum. Therefore, the edition can serve as the input for linguistic research (orthography,



morphology, etc.) as well as for research in other areas such as the history of medicine, among others. The spelling of the text has been normalised to make it processable by Present-day English linguistic tools and then POS-tagged in order to carry out automatic morpho-syntactic searches. In addition, an electronic edition has been prepared (freely available online at <<http://modernmss.uma.es>>) where the original images of the manuscript can be viewed together with its semi-diplomatic transcription.

Linguistic complexity

Complexity has been defined as “a matter of the number and variety of an item’s constituent elements and of the elaborateness of their interrelational structure, be it organizational or operational” (Rescher 1998: 1). There are many studies on linguistic complexity in the literature, both synchronic (Crystal and Davy 1969; Biber 1992; Bhatia 1993; Danet 1980) and diachronic (Hiltunen 1990; Lehto 2015). These studies have focused on contemporary English as well as English produced in other historical periods, together with particular text types. However, as far as I have been able to investigate, no such study has been carried out taking early Modern English medical writing as the input. Furthermore, these studies have focused separately on different aspects of the language in order to ascertain their level of linguistic complexity at a particular linguistic level. These linguistic aspects range from text structure to the use of subordinate constructions or the passive, among others.

In the present PhD dissertation, consequently, these elements are combined, allowing for an analysis at different linguistic levels. Thus, text structure and text layout are analysed at the macro-linguistic level, while a number of linguistic features are studied at the micro level (Biber 1992). This analysis is relevant not only for the assessment of the degree of linguistic complexity of two early Modern English medical text types, but also for the identification of



characteristic linguistic features of both text types, i.e. the use of passives, conditional adverbial subordination, etc.

Objectives

Taking into consideration the previous sections, the present PhD dissertation has been conceived with following objectives:

1. The socio-historical analysis of the period in which H135 was produced.
2. The semi-diplomatic edition of H135 (ff. 34r–121v).
3. The electronic edition of H135 (ff. 34r–121v), freely available at <<http://modernmss.uma.es>>.
4. The preparation of a glossary of the words in the texts (nouns, verbs, adverbs and adjectives).
5. The compilation of a normalised and POS-tagged corpus of early Modern English medical writing amounting up to 38,830 words, which will eventually be incorporated to *The Málaga Corpus of Early Modern English Scientific Prose*.
6. The analysis of the linguistic complexity in the two texts in H135, i.e. a surgical treatise and a collection of medical recipes.

The justification for these objectives lies in the fact that H135 is a hitherto unedited manuscript, which will be made freely available for research in linguistics and other fields (history of medicine, etc.).

Methodology

The methodological procedure could be divided into five subsequent stages:

1. Socio-historical analysis: the historical context of the witness has been studied in order to detect the scribes' motivations as well as the readers' needs.
2. Edition: a semi-diplomatic transcription in which editorial intervention is practically non-existent.
3. Glossary preparation: a glossary containing the nouns, verbs, adverbs and adjectives in the texts. For the purpose, these words have been lemmatised according to the *OED* and the *MED*. Thus, each entry provides a headword (the lemma), together with the word class, the meaning, and the different allographs with their number of hits in the text.
4. Physical description of the witness: a physical description including a palaeographic and a codicological analysis of the original witness.
5. Corpus compilation: the previous material is taken as the input for the compilation of a normalised and POS-tagged corpus of early Modern English medical writing.

Structure of the work

The first chapter is concerned with the socio-historical context of the manuscript under analysis. For the purpose, the chapter is divided into four different parts. The first deals with the society in Tudor England as well as the medical profession. The second sketches the situation of early English medical writing, where the transition from Middle English to early Modern English is analysed. Finally, the third and fourth parts describe the surgical treatise and the collection of recipes, respectively, as original written records of early Modern English medical writing produced at the time.

The second chapter deals with the contents, ownership and physical description of H135. The edited material is housed within ff. 34r–73v (the surgical treatise) and ff. 74r–121v (the collection of recipes). In terms of ownership, three



different owners have been identified, namely William Hunter, Leonardus Cooke and Henry Swinburne. Finally, a codicological and palaeographic analysis of H135 is carried out.

The edition itself is offered in Chapter 3, where the work of the editor is described by way of the enumeration of the kinds of edition that can be produced, whether critical or non-critical. More importantly, the editorial procedure is described, and it can be found that it is a semi-diplomatic edition where editorial intervention has been kept to a minimum, accompanied by two critical apparatuses. In addition, a glossary containing the words in the text has been provided, which offers the headwords under which the different allographs (together with their number of hits in the text) of each word are included. In addition, the word class and the meaning are also provided.

Chapter 4 explains the transition from the transcribed text to the normalised and POS-tagged corpus. Thus, an introduction to corpus linguistics is supplied, including its relevance in historical linguistics as well as the compilation of a historical corpus (restrictions, processing of historical corpora and corpus annotation).

Chapter 5 assesses the level of linguistic complexity of the surgical text and the collection of recipes. The level of linguistic complexity is carried out considering the macro- level (text structure and text layout) and micro-level (linguistic features denoting reduced complexity and linguistic features denoting increased complexity). The chapter ends with an enumeration of the characteristic linguistic features of both the surgical treatise and the collection of recipes.

Finally, Chapter 6 offers the conclusions in the present work and Chapter 7 provides the list of references.





CHAPTER 1

THE TEXTS AND CONTEXT IN MS HUNTER 135

Everything that physically surrounds a text in its manuscript is potentially significant [...] Contextual information might give clues as to whether a text was meant to be read silently or listened to, how it might be interpreted, its contemporary readership and ownership and signal its status, that is whether it was considered an authoritative work or a less prestigious text (Caie 2008: 10–11).

The study of context is particularly important when working with historical manuscripts, as information about the needs of readers and the motivations of writers may help fully decode the message in the witness. Consequently, the present chapter describes the socio-historical context of H135. For the purpose, the first section aims at the description of the socio-historical situation in which the witness was created, paying special attention to the medical profession and the people involved in the practice of it. After that, the evolution from late Middle English to early Modern English scientific writing is provided, together with the description of the two texts under study in the present dissertation.

1.1. The Socio-historical context of H135

The early Modern period has a great importance not only in terms of the standardisation of the English language but also in terms of the transition from the scholastic thought to the pragmatic or empirical way of thinking (Taavitsainen and Pahta 1998: 162; Gotti 2001: 221).

H135 was written in the sixteenth century, at the dawn of the early Modern English period, after the proclamation of Henry VII as king of England



in 1485.¹ The society of the time was the product of the devastation of diseases such as the Black Death, whose ravages left England with a population of barely 2.6 millions in 1525. It was from this year that the population began to grow steadily, and in just 75 years it increased to 4.10 millions (Guy 1984: 257; Lockyer 2005: 139).²

This increase of the population triggered the agglutination of people in cities and towns all around the country.³ The city of London is a case in point of this growth of cities in Tudor England, enlarging its population from 60,000 to 225,000 inhabitants in just a century. This increase was mainly due to immigration,⁴ since the death rate in the city exceeded that of live births. People saw opportunities and the possibility of a better-paid job in London, where huge volumes of coal, grain and other commodities were shipped from other parts of the country, Europe, and also overseas. In addition, there were other smaller

¹ This year marks the end of the Wars of the Roses between the houses of York and Lancaster, which had begun in 1455 after Edward, duke of York, claimed the English throne and began his reign as Edward IV in 1461. However, the Wars of the Roses would end with a Lancastrian, Henry Tudor, Earl of Richmond, as king of England, after having defeated and killed Richard III at the battle of Bosworth on 22 August 1485 (Lockyer 2005: 1).

² Nicholls warns that at the beginning of the early Modern period population estimates were based on tax and probate records, whose accuracy was not reliable inasmuch as they only offered information about the more prosperous men and women. From 1538, however, the historian is able to extract more trustworthy demographic information from parish registers, maintained by incumbents up and down the land (1999: 2).

³ All towns shared common features and offered the same facilities: shops with varied merchandise, schools, taverns, entertainment, businesses such as tanning and brewing and smithies operating from backyards or domestic dwellings. In addition, the country man may as well find professional services, doctors and lawyers for example (Nicholls 1999: 4).

⁴ According to Lockyer, people went to London for diverse purposes. Lawyers went there because the major law courts were located at Westminster; government servants had to be resident there, at least for part of the year, and so did an increasing number of merchants, for during the Tudor period London became the main centre of English commerce (2005: 150).

towns as Bristol, York or Newcastle, among others, which had a population of around ten thousand inhabitants (Nicholls 1999: 3; Lockyer 2005: 150).

The structure of the English society during the sixteenth century was characterised by the typical pyramidal shape in which the royal family was at the upper level and the poor stood at the lowest. There were, however, some other layers in-between these two opposed poles, among which landed orders and non-landed élites could be distinguished (Sharpe 1997: 181–204). Within the landed orders, the aristocracy and nobles were immediately below the royal family and they were small in number, amounting up to less than fifty members by 1547, because of the numerous executions after Henry VII became king;⁵ next on the social ladder was the gentry, who did not have to earn their living by manual labour either;⁶ below the gentry were the yeomen, possessors of freehold land worth at least forty shillings a year; husbandmen were those who farmed anything from five to fifty acres and cottagers just one or two; the landless depended on wages to make a living; and the poor were without any means of subsistence and depended upon private and parish charity. Interestingly enough, although the amount of land held by a family was a token of its social status, their wealth also

⁵ Soon after the coronation of Henry VII, “the parliament passed an act of attainder against the late king himself, against the duke of Norfolk, the earl of Surrey, viscount Lovel, the lords Zouche and Ferrars of Chartley, Sir Walter and Sir James Harrington, Sir William Berkeley, Sir Humphrey Stafford, Catesby, and about twenty other gentlemen, who had fought on Richard’s side in the battle of Bosworth. The new king was therefore literally eliminating any likely threat to his actual position” (Hume 1984: 12).

⁶ Sixteenth- and seventeenth-century observers used ‘nobility’ (or the Latin *nobilitas*) to describe peers and gentry alike. They made a distinction between the *nobilitas major* (for the nobility and the upper gentry as knights and squires) and the *nobilitas minor* or the lesser gentry (Sharpe 1997: 158).



depended on other circumstances, such as recusancy.⁷ Consequently, it was not rare to find areas in which agriculture was profitable enough to make a living as well as areas in which additional resources were needed (Lockyer 2005: 155–157).

The non-landed *élite*⁸ was integrated by professions that had nothing to do with the possession of land, which would entail the rising of the middle class during the early Modern period. This emergence of the middle class was mainly led by merchants, who were “the dominant element in the money-making sectors [as] wholesale traders in home or export markets and buyers and sellers of raw materials, goods and overseas imports” (Sharpe 1997: 181). This new class, together with other professional men, belonged to a different scale irrespective of land’s holding, and contemporaries used to place them above the status of yeomen, close to the gentry.⁹ Nevertheless, such a status for a relatively new class could be explained from three different perspectives: first, they had familiar ties to the landed orders, as merchants were recruited from the youngest generations of the gentry;¹⁰ second, they were able to accumulate more substantial wealth in

⁷ The *OED* defines recusancy as “refusal, especially on the part of Roman Catholics, to attend the services of the Church of England; from c 1570 to 1791 this was punishable by a fine, and involved many disabilities.”

⁸ Professions (lawyers, doctors, merchants of all kinds) never fitted easily into traditional models of society based on landownership, although the professionals themselves made every effort to conform, established town tradesmen persisting in describing themselves as yeomen, and office-holding citizens expecting to be addressed as gentlemen. If one social trend is apparent in the later sixteenth century, it is “that towards a greater diversity of elites – of land, of church, of trade, of industry and of law” (Nicholls 1999: 10).

⁹ The economic changes of the sixteenth and seventeenth centuries made shifts in the social order almost inevitable. The polarisation of villages, and the growing prosperity of village notables, undermined the existing structure, and social hierarchy was often heatedly contested (Amussen 1993: 137).

¹⁰ According to Wrightson, “careers in trade were usually chosen as appropriate opportunities for those younger sons of the gentry who could not set up independently on estates. Thus, of more than 8,000 apprentices bound to the members of fifteen London companies in the years 1570–



cities than yeomen in the countryside; and third, they held positions in local administrations that could be compared to those monopolised by the gentry in the countryside (Wrightson 1982: 27-28).

The clergy also deserves mention, as it was one of the most developed professions of the period. The clergy could be divided into educated, non-resident beneficed clergy and the unlearned, resident parochial clergy (further divided into the various types of curate, vicars and rectors). The picture of the average clerical living is, however, difficult to draw, as the variations were enormous between parishes, the income of them depending on the size and fertility of the parish and the local economic situation (Sharpe 1997: 190).

Apart from the merchants and the clergy, there were other professions that also offered opportunities, such as those linked to law and, to a lesser extent, medicine. University training was only needed if the apprentices aspired to the higher degree echelons in any of these professions. Thus, it is no surprise that some three quarters of common lawyers came from the gentry, as fees had to be paid at university (Wrightson 1982: 29). The number of students started to grow in the Tudor period to the point that by 1600 universities admitted 400 and 500 men per year, an acceptable figure if compared to the 150 men admitted per year by both Oxford and Cambridge during the Middle Ages (O'Day 1995: 69).

Professions related to the field of law were divided into barristers and attorneys, the former studied the law and pleaded in court and the latter “advised litigants involved in or contemplating suits in the Westminster courts, looked after the legal aspects of local commercial or land transactions, drew up conveyances, contracts and bonds, and supervised local manorial courts” (Sharpe 1997: 196).

1646, some 12.6 per cent were the son of knights, esquires and gentlemen. In addition, less than 10 per cent of the great merchants of Elizabethan and early Stuart London had been born in the city” (1982: 28).

1.2. The medical profession in early Modern England

The status of Medicine in England during the sixteenth century was marked by the geography and the social status of patients, which helped determine their chances of life. Thus, towns and cities presented higher mortality rates than the countryside,¹¹ as the density of population, housing and communication routes also brought in diseases (Slack 1979: 17; Porter 1987: 5; Wear 2000: 12). In these environments, there were years of “exceptionally high mortality, when death rates in villages and towns doubled or trebled and the normal life of local communities was totally and tragically disrupted” (Slack 1979: 11). Social status, in turn, was decisive inasmuch as the poor could hardly afford the fees of surgeons or physicians, and the parish welfare support would usually pay their treatments.

When it comes to the people involved in health care in early Modern England, ‘the Medical Marketplace’ has been employed in the literature since the 1980s to label the context of medicine in the period. This term aimed to suggest that the boundaries that separated the labour of physicians, surgeons and apothecaries were often blurred; and that there were many others who also practised medicine, both for money and/or altruism. Given this situation, it could be said that within this medical marketplace, “services were advertised and sold to those who cared to shop [and] patients had relative freedom to choose the medical practitioners they liked, [...] selecting therapies and therapists according to their estimation of the practitioner’s effectiveness or manners, not to mention cost” (Jenner and Wallis 2007: 2).¹²

¹¹ Mortality was so high that “the populations of cities such as York, Bristol, Norwich, Newcastle and, most famously, London, were not self-sustaining and only the constant flow of people from the countryside allowed them to grow” (Wear 2000: 12).

¹² By conceiving the sick person as a consumer in seek of health care, both commercial and non-commercial curers could be included under the broad term ‘medical marketplace’ (Jenner and Wallis 2007: 7).



Two main groups of practitioners can be found in the period, those unlearned practitioners who offered cures for money (namely village wise women,¹³ white witches, quakers or empirics, among others) and the expensive physicians at the top end of the medical market (Porter 1987: 11; Wear 2000: 21–22). The unlearned practitioners were mostly the women in a family, who had traditionally been the sources of medical knowledge and treatment. Among amateur practitioners,¹⁴ “some practised full-time and some part-time, some for money and some in an act of charity, they were called quakers or empirics, and their existence demonstrates that medical expertise was widespread across society” (Wear 2000: 21–22). These practitioners were mainly found in towns and villages, where the presence of university trained physicians was scarce and people were financially unable to move to cities to visit them.

From an administrative standpoint, the sixteenth century is regarded as a crucial century in the history of English medicine, as the College of Physicians was founded in 1518 and the London guilds of barbers and surgeons were finally united in 1540. The College of Physicians had “a membership of fellows,

¹³ Women played a substantial part in medicine in sixteenth-century London [...] Apart from occupying posts and hospitals, taking on public health duties during epidemics, and collecting the information for the bills of mortality, women were recognized as unlicensed apothecaries and surgeons. Proof of their activity is the record of the College of Physicians reporting that twenty-nine female practitioners were prosecuted between 1550 and 1600 (Pelling and Webster 1979: 186–187).

¹⁴ Thousands of other people at this time made a living, or topped up their income, from medicine. Grocers and pedlars sold drugs. Blacksmiths and farriers drew teeth and set bones. Itinerants toured the country, selling bottles of brightly-coloured ‘wonder cures’ and moving on to the next town fast. Other travelling doctors possessed genuine skills in treating eye, teeth or ear complaints, thus performing a useful service in the days before business was brisk enough to support permanently (Porter 1987: 14). Empirics, mountebanks, herbalists, astrologers and uroscopists offered their services “either as itinerants or from fixed locations, advertising themselves as cheaper than the physicians” (Wear 2000: 22).



candidates and licentiates who were admitted by examination, whilst the barber-surgeons and apothecaries granted the freedom of their guilds after apprenticeship and examination” (Wear 2000: 25).¹⁵ The creation of these two organizations established a line between unlearned amateur practitioners and learned practitioners.

This event marks the beginning of medicine as a proper profession. The chief functions of the College were academic, administrative and medico-political. In 1553 Queen Mary granted to the President of the College of Physicians the power to fine or commit certain categories of offenders such as apothecaries who sold defective drugs, hence the importance of this organization, which was to regulate the practice of medicine in the city (Copeman and Charles 1960: 25–27). A different picture was nevertheless observed in villages and the countryside, where the geographical limits of the licensing bodies allowed the proliferation of unlicensed practitioners who had no rigid uniformity in medical knowledge and practice (Wear 2000: 27).

The body of learned practitioners was integrated by physicians, surgeons and apothecaries. Physicians were higher in rank, as they were university trained. They had to study medicine based on classical sources for seven years after taking their BA and MA degrees. Then, they could also go abroad to Italian, French or Dutch universities and acquire an MD degree in less than a year. Finally, they gained practical knowledge by apprenticeship with a more experienced physician (Copeman and Charles 1960: 32; Wear 2000: 26).

¹⁵ In this vein, Pelling and Webster state that, although the College of Physicians somewhat regulated the profession of physicians, it lacked organization in its first stages, as “not only was it unable to secure the control of medical practice throughout the nation granted in the 1523 statutes, but it was slow to consolidate its position in London [...] The College contributed little to medical education and scholarship until the 1580s [and] their primary concerns related to fastidious details of internal management and the protection of their monopoly against the swelling tide of unlicensed practitioners” (1979: 168).



While physicians were concerned with the theoretical knowledge in books and the explanation of the phenomena of nature, being little concerned with practical applications and techniques, surgeons employed skills which were generally hereditary and lacked a proper theoretical background.¹⁶ Among their duties, they performed amputations, fracture-settings, the removal of tumours and trephining, as well as lithotomy and plastic surgery.¹⁷ Given the need of the knife for the accomplishment of these treatments, “surgery and barbering had long been yoked together within the guild system, until the creation of the Barber Surgeons Company of London in 1540” (Porter 1987: 11–12).¹⁸ Surgeons were generally unlatined, which prevented them from gaining professional equality with physicians, who radically opposed to vernacular writings, partly because they wanted to maintain their supremacy (Copeman and Charles 1960: 37–39).

Apothecaries or druggists constitute the third group of learned practitioners, who were “the physician’s underling, as they dispensed the prescriptions of physicians. They regularized their professional status almost a century later than physicians and surgeons with the foundation of the Apothecaries Society in 1617, thus becoming independent from the Grocers’ Company, “which was the official monopolist of the import drug trade at this time” (Copeman and Charles 1960: 45; see also Pelling and Webster 1979: 178).

¹⁶ The role of the university-trained physician quite often took the form of dietician, spiritual counsellor and general confidant rather than that of medical practitioner in the strict sense of the word. He had, of course, been educated in a tradition which regarded all aspects of human life as the legitimate preserve of medicine, and which, moreover, left the nuts and bolts of surgical procedure to craftsmen rather than academics (Rawcliffe 1995: 112).

¹⁷ The surgeons were legally limited to the use of external medicines (exclusively administered by physicians), despite their repeated attempts to overrun this limitation (Wear 2000: 217).

¹⁸ Candidates applying for admission to the Barber-Surgeons’ Company were required to have served the statutory period as apprentices and to satisfy the examiners that they were “well exercised in the curing of infirmities belonging to surgery of the parts of man’s body commonly called the anatomy” (Pelling and Webster 1979: 175).



They worked from their shops and their training was based on apprenticeship rather than university. Their advantage on medicines and drugs over physicians made them prescribe on their own authority, a fact that created rivalry with physicians (Porter 1987: 12).

The multiplicity of layers within the labour and jurisdiction of medical practitioners in Tudor England favoured the production of texts for them to use, the genres varying from theoretical treatises on anatomy or surgery to more popular lists of remedies or books on prognostication. The audiences of these texts varied, and H135 demonstrates that the same person could be interested in both theoretical knowledge (such as the treatise on surgery) and popular writings (such as the collection of medical recipes).

1.3. Scientific writing in early English

The first extracts of scientific writing in English can be traced back to the Old English period, where astrological and computational treatises of the calculation of time, herbals, and medical texts have survived. According to Voigts, “four long Old English medical works survive: the *Læcebok* (Bald’s Leechbook), *Lacnunga*, *Peri Didaxeon* and *Herbarium Apulei*” (1979: 250).¹⁹ These texts make up the earliest body of vernacular medical texts in medieval Europe and could be labelled as remedy books, as they contain recipes, rules of health, charms and other related

¹⁹ The *Læcebok* is made up of three collections of medical recipes that seem to derive from the court of Alfred the Great, contained in a manuscript from the mid-10th century (British Library Royal 12 D. xvii, fols. 1–127v); *Lacnunga*, which means “healings” or “cures”, differs from the other texts in its high percentage of charms and other magical elements and is contained in a codex written in the late 10th or early 11th century (British Library Harley 585, fols. 130–151v and 157–193); *Peri Didaxeon*, “Concerning Schools of Medicine”, is found in a manuscript which may be as late as 1200 (British Library Harley 6258b) and the question of whether the language of this text is late Old English or early Middle English is yet unresolved; the *Herbarium Apulei* is the Old English translation of a late antique herbal and is preserved in four different manuscripts (Voigts 1979: 250–251).



materials. After Old English, there is a gap before the emergence of the scientific genre which would cover almost the entire Middle English period (Voigts 1979: 251; Taavitsainen 2002: 205–215).

1.3.1. The late Middle English period

The linguistic situation of mediaeval England has been described by Pahta as multiglossia, that is, the coexistence of different linguistic varieties with separate functions. Thus, Latin was the most prestigious language, being used both at Church and universities; French had a mixed usage, as it was used in administration as well as in ordinary everyday interaction among the French-speaking population; and English was restricted to interaction in domestic and causal domains (Pahta 2001: 213).²⁰ This multilingualism is reflected in the large number of manuscripts containing Latin, French and English that have survived, “providing evidence of polyglot discourse communities comprising writers and users of these documents” (Pahta 2004: 74). This phenomenon was defined by Heller as code-switching, that is, the use of two or more languages in the same communicative act (1988: 1). Code-switching’s main domains were medicine and religion and they could be used with a text-organising function, and for separating texts or sections or texts and metatexts (Pahta 2004: 81).

In this context, medicine was concerned with the maintenance of health and the treatment of diseases, and the medical practitioner had access to a corpus of varied material which included

Latin versions of lengthy treatises by Galen on diseases, symptoms, and treatment; synoptic works used as academic textbooks [...]; general treatises

²⁰ Pahta also states that the majority of the population was undoubtedly monolingual and only spoke English, but for the higher and educated parts of the society, monolingualism must have been rare. However, in a multilingual context in which the three languages involved present great internal variation, it is often difficult to draw a line between borrowing and switching, especially in the case of embedded single lexical items (2004: 74–79).



on practical medicine; collections of opinions on specific cases by famous physicians (*consilia*); guides to medical terminology; manuals on techniques of phlebotomy; directories of ingredients for medicines; collections of medicinal recipes; color charts to aid in diagnosis by inspecting urine; calendars and tables for use in astrological medicine; and handbooks on particular subjects such as poisons or theriac (Siraishi 1990: 118).

During the last part of the fourteenth century, the translation of the Latin, Greek and Arabic scientific material into the vernacular started to proliferate, a fact that made English eventually become the language of science (Taavitsainen 1994: 329, 2002: 205; Taavitsainen and Pahta 1998: 157; Pahta 2001: 208).²¹ Until this period Latin had been, and still was, the language of science *par excellence*, although its position as the vehicle for the transmission of knowledge was about to be undertaken by the English language. Thus, while in the initial phases of the process English would occur together with Latin and/or French in bi- or trilingual volumes, by the end of the fifteenth century “there was a full range of vernacular medical texts available in English-language manuscripts in which Latin played little or no role” (Pahta 2001: 209).²² This scientific language switch, however, had its social consequences. On the one hand, knowledge would be available “for a wider readership, namely unlatined people” (Pahta and

²¹ It is only from 1350 that we can trace what is sometimes called the “triumph of English” in the reappearance of English in legal proceedings, guild records, courtly literature, encyclopedias, religious controversy, as a vehicle for – although not subject to – childhood instruction, and – of course – in medical writing (Voigts 1982: 39). Taavitsainen, in turn, assures that the process of vernacularisation in England took place “on a broad front, including administration, the Wycliffe translations of the Bible and other Lollard texts, fiction, with Chaucer’s work establishing the literary canon, and scientific and utilitarian writing” (2002: 205).

²² Pahta and Taavitsainen distinguish three phases in the vernacularisation of English: 1375–1475, 1475–1550, and 1550–1700. See Taavitsainen and Pahta (2004) for the period 1375–1500, that is, late Middle English; and Taavitsainen and Pahta (2011) for the period 1500–1700, i.e. early Modern English.



Taavitsainen 2004: 1-2). On the other, the transition from Latin to Middle English would join the relatively few university-trained physicians, who understood Latin, from the unlatined ones, i.e. the on-the-job trained surgeon, the barber-surgeon or the apothecary, among others (Robbins 1970: 394).

Several attempts have been made in order to draw an adequate classification of mediaeval scientific writing. Thus, Robbins (1970) divided it into three main categories: prognosis,²³ consisting in the astrological determination of the possibility of effecting a cure and the most favourable times for treatment; diagnosis, which was carried out by the analysis of the urine;²⁴ and treatment, consisting in giving preparations derived from herbs, of bloodletting, or other medications of an empirical kind. Voigts, in turn, assures that Robbins' subject matter classification is not particularly consonant with the technology of mediaeval medical practice, arguing that text types such as bloodletting, surgeries or long compendia are difficult to categorise, as they usually cover more than one of the branches outlined in Robbins' classification (Voigts 1984: 322).

A taxonomy of scientific writings based on the intended audience of the texts is also problematic inasmuch as there are “many cases for which we do not

²³ There are four subcategories in Middle English prognostic material according to Means (1992): the electionary, the most important of all prognostic texts, is a guide for choosing (or electing) activities according to the most favorable astrological conditions; the lunary (from Latin *luna*) is very much related to the electionary as they both focus on planetary influence, although the lunary selects only one planet, the Moon; the destinary (from Latin *destinaria*) or horoscope, a group of prognostications based upon a time of birth, determining destiny; and the questionary, which is only concerned with specific questions, who and how they are asked, and the means by which they may be answered.

²⁴ Whereas Robbins found “dozens of Middle English prose urinologies” in his survey of more than 350 Middle English medical MSS (399), a search of the Voigts-Kurtz database of *Scientific and Medical Writings in Old and Middle English* under the subject category “Urine and Uroscopy” yields 408 Middle English hits (Tavormina 2005: 43; Calle-Martín 2012: 243–244). This gives a clear account of the importance of this kind of literature in mediaeval England.

have enough information to posit the intended reader or user of a given book” (Voigts 1982: 43). Furthermore, the ownership of some manuscripts is every now and then surprising, and it is not rare to find popular material owned by a university-trained royal physician as John Argentine or a treatise on malfunction of members and humours being Englished for a barber (Voigts 1984: 322).

In order to draw a more accurate classification of Middle English prose medical texts, Voigts (1982: 44) proposed a division between academic medical texts (adhering to a technical source) or popular remedy book (following the tradition on *receptaria*).²⁵ Apart from the central theme of these different categories, they also present divergences in their tradition. While academic medical texts follow Latin exemplars and imitate their style,²⁶ remedy books are somehow less dependent on these foreign exemplars, as their tradition was well established in Old English (Görlach 1992: 747; Taavitsainen 1994: 330; Taavitsainen 2001: 141). This tradition can be observed in the freedom with which remedies and guidebooks were created, as their production depended upon the needs of writers and/or readers and could contain remedies related to different topics (Taavitsainen and Pahta 1998: 159). This classification was also adopted by Taavitsainen and Pahta (1998) in their approach to the vernacularisation of scientific writing in late mediaeval English, arguing that “these texts mostly originate in learned circles and belong to the academic tradition; yet they have a place among practical sciences as surgery was a craft and the books were intended

²⁵ In this classification, Voigts admits that this division is part of a continuum, and some texts such as treatises on uroscopy or phlebotomy “may well occupy an intermediate position” (1982: 44).

²⁶ Translators made great efforts to polish and enrich the target language [English], and transfer the already established conventions and features of Latin scientific writing into English [...] They “struggled with many difficulties in both syntax and lexicon to find adequate expressions in English, as scientific writing in the vernacular was new and new conventions had to be created” (Taavitsainen and Pahta 1998: 158–159).



for practical use, sometimes with detailed instructions and even illustrations” (Taavitsainen and Pahta 1998: 159).²⁷

Approaches	Taxonomies
Robbins (1970)	Prognosis
	Diagnosis
	Treatment
Voigts (1982)	Academic medical texts
	Popular remedy books

Table 1.1. Evolution of the taxonomies of late Middle English scientific writing

These writings are characterised by a scholastic thought-style,²⁸ which would influence the way in which they were created, showing preferences at the interpersonal level in the involvement features, at the textual level in the way of argumentation and overall rhetorical organisation, and at the ideational level in the modality knowing. This mode of knowing has also been called the quotative (Palmer 1986: 51), as it was basically the collection of the different opinions of important authorities in the field, no other evidence being necessary to justify them. Thus, medieval scholastic science is built on hearsay, with language as the only source (Taavitsainen and Pahta 1998: 162–163; Taavitsainen 2002: 206–207).

1.3.2. The early Modern English period

The beginning of the early Modern period is marked by a change in the production of science, shifting from the medieval scholastic science that relied on

²⁷ In terms of the audience of these different text types, Taavitsainen and Pahta argue that “university medicine was for physicians of the highest class, surgical books were for surgeons and barber-surgeons, and remedy books for a large and heterogeneous group including medical practitioners of all classes and lay people” (1998: 160).

²⁸ Scientific thought-style can be defined as “the underlying scientific concepts, objects of enquiry, methods, evaluations and intellectual commitments related to the epistemology of science” (Crombie 1994: 5–6; Pahta and Taavitsainen 2011: 2).

classical authors such as Galen or Hippocrates, to new ways of constructing knowledge based on observation and cognition.²⁹ In other words, if at the beginning of the sixteenth century scholars were convinced that knowledge was on authoritative texts, by the middle of the century they started to abandon this belief, acknowledging that empiricism was the new way of constructing knowledge. Contrary to scholasticism, empiricism relied on observation as a source of knowledge and induction as a mode of knowing (Taavitsainen and Pahta 1998: 162; Gotti 2001: 221; Taavitsainen 2002: 204–207, 2009: 38).

This evolution of science entailed a redistribution of medical writing in the period that, helped by book production, spread widely among the society, especially after 1550 (Taavitsainen et al. 2011: 10–11). This not only provoked the expansion of already existent text types, but also the incorporation of new ones to the panorama of early Modern medical writing. For this reason, Taavitsainen et al. (2011: 22–25) elaborated a new, and more adequate, taxonomy for these writings: *general treatises or textbooks*, providing a systematic account of the whole field of medicine; *treatises on specific topics* (texts on specific diseases, specific methods of diagnosis or treatment, specific therapeutic substances, midwifery and children's diseases and the plague); *recipe collections and materia medica*, containing both remedy books and formalized pharmacopoeias; *regimens and health guides*, comprising texts on preventive medicine; *surgical and anatomical treatises*; and *Philosophical Transactions*, which consist exclusively of medical texts published as letters or articles in the *Philosophical Transactions* of the Royal Society. Table 1.2 below offers the taxonomy of scientific writing in late Middle and early Modern English.

²⁹ According to Taavitsainen, “the founding of the Royal Society is one of the landmarks in the period, as it proposed a new way of thinking and communicating, and a new style of reporting on experiments was created” (Taavitsainen 2002: 204).



Late Middle English	Early Modern English
<i>Specialized texts</i>	<i>General Treatises or textbooks</i> <i>Treatises on specific topics</i>
<i>Surgical texts</i>	<i>Surgical and anatomical treatises</i>
<i>Remedies and materia medica</i>	<i>Recipe collections and materia medica</i> <i>Regimens and health guides</i>
-	<i>Philosophical Transactions</i>

Table 1.2. Taxonomy of scientific writing in late Middle English and early Modern English

The diffusion of this new science was possible due to the circulation of manuscripts and, from Caxton's introduction of the printing press in 1476, of early printed books.³⁰ Even though the ability to write and the availability of materials increased after 1500, cheap printed books saved the trouble and expense of writing. However, there were certain text types that were more prone to be handwritten, such as the tailored compilation of remedies from various sources, the students' notebooks, and records of the different treatments that a particular physician applied to his patients (Taavitsainen et al. 2011: 10–11).

In order to know who had access to this material, Jones distinguishes two different literacies in the early Modern scenario: functional literacy, when people read seeking help to maintain or restore their health; and cultural literacy, which “was restricted to those with leisure and educational attainment sufficient to make

³⁰ Although the advent of printing “enabled the production of multiple copies of a text more quickly and more cheaply, [...] the progress of medical printing in England was slow in comparison with Continental Europe [and] only after 1550 did the numbers of medical books printed in England begin to increase sharply” (Taavitsainen et al. 2011: 10–11).

their exercise feasible” (2011: 32: see Ford 1993 for a detailed analysis of these literacies). In medical writing, therefore, while theoretical treatises would belong to cultural literacy, as it was university-trained physicians who studied the ‘science of physik’ looking for the cure of diseases and the restoring of health; popular remedy books are placed in the context of functional literacy, being consulted whenever people needed to access knowledge in order to improve, or just maintain, their health conditions.

These different literacies occurred in different scenarios in the early Modern society. Thus, the exchange of medical knowledge could occur in the market square or the street, where medical edicts and important information about diseases were proclaimed. In addition, the reading of medical literature could also take place in a more private setting, the closet, in which books and the equipment to make up household remedies were kept.³¹ And finally, the library or the study, where books, mainly printed and in Latin, were found (Jones 2011: 34–37).

From a linguistic point of view, this transition in the way knowledge was transmitted is due to the fact that genres “constitute dynamic systems that undergo change and variation over the course of time as sociocultural needs change, and genres change accordingly: old genres are adapted to new functions, new genres are created, and genres that have lost their function cease to exist” (Taavitsainen 2001: 141, 2009: 38). Code-switching is also witnessed in the period as a continuation of the late mediaeval tradition. In early modern English medical writing, it was employed for the expression of certain medical terminology, to include expressions of intertextuality and as a tool for textual organization (Pahta 2011: 123–131).

³¹ The closet was a real location in the early Modern household, and it appears in the title and preliminary matter of books in the sixteenth and seventeenth century as a place for reading and making remedies (Jones 2011: 35).



All this considered, it could be said that linguistic features evolve from one thought-style to another, and differences in the speech act verbs of reporting, the definition of scientific terms, argumentation and meta-text are found between late mediaeval and early Modern English scientific writing, that is, between scholasticism and empiricism (Taavitsainen 2002: 207–218). However, it must be noted that these changes or evolutions are not as conspicuous as they were thought to be, as “the great majority of early modern medical writings continue in the old vein, carrying over conventions from previous writing” (Taavitsainen 2011: 3).

1.4. The surgical treatise in H135 (ff. 34r–73v)

Early Modern surgery was mainly concerned with cutting out disease by excision or amputation or with mechanical repairs such as setting bones or putting dislocations back in place. The labour of surgeons could be divided into four kinds, according to their purpose: the treatment of wounds, ulcers, fractures, dislocations and tumours; the separation of parts of the body for either cosmetic or functional reasons; the removal of what was superfluous in the body, such as a dead child in the womb, ruptures or hernias, etc.; and the restoration of defects of the body using parts of the body or artificial artefacts (Wear 2000: 211–213).³²

This period in the history of English medicine witnessed the transition from the traditional surgery based on the practical knowledge and acquired by apprenticeship, to a learned surgery that was well acquainted with the Classical authors and likely to include dietary recommendations or prescribed medicines. It is the believers in this ideal that can best be characterised as ‘humanists’, scholars convinced of the practical utility of linking the present with a classical

³² According to Porter, surgeons’ labour was “restricted largely to the body’s surface, [where] they set fractures, treated burns, contusions, knife wounds and the increasingly common gunshot wounds, tumours and swellings, ulcers and various skin diseases; syphilis was usually handled as a surgical condition” (1997: 186).



past,³³ and prepared to be guided by the precepts and the example of their predecessors. Accordingly, this learned surgery not only published ancient Hippocratic and Galenic surgical texts, but also vernacular surgical texts blending past and present surgical knowledge, thus making it available to the many surgeons who could not read Latin (Nutton 1985: 80; Wear 2000: 218).³⁴

The first step towards the change of thought in the sixteenth century was the conception of physic and surgery as disciplines complementing each other for the sake of a more accurate practice of medicine. Therefore, surgeons would have to get familiar with the “physicians’ territory of inward diseases and remedies [applying] complete treatments rather than simple external remedies”, and offering advice on internal medicines and on diet (Wear 2000: 219). In this manner, surgeons would receive the theoretical basis of the operations they usually performed, while the physicians could use therapies they had long disregarded (Nutton 1985: 80).

H135 (ff. 34r–73v) is a case in point in the production of these innovative learned surgeries, as it contains a version of Guy de Chauliac’s surgery with interpolations of Henry de Mondeville and others (Voigts 1995: 261), in which the author provides the patient with medicines to heal the injury, apart from the surgical operation. This treatise is characterised by the pragmatic nature of its

³³ The new developments in warfare in the sixteenth century led to a consequent re-examination of surgical techniques, the invention of new instruments and artificial limbs, and the discover of new techniques for managing wounds (Nutton 1985: 76).

³⁴ Learned physicians welcomed the push to create surgeons educated in classical learning, seeing this as part of the reformation of medicine and the war on empirics, but they still wished to retain the separation between physic and surgery that placed them above the rest of practitioners. The lack of theoretical background in the practice of surgery made physicians look down on surgeons, as can be noticed in the words by the Salisbury Physician, John Securis (fl. 1566): ‘There be many surgions in this oure time, that practise surgerie, more by blynde experience, then by any science who [...] knowe almost the vertue and opereation that they do use. For howe shoulde they knowe it, when they are altogether unlearned?’ (Wear 2000: 218).



explanations, lacking the usual references to classical authors during late mediaeval England, as can be observed in (3).

- (3) And if they do not then giue him *euery daye* this drinke fastyng the quantitie of foure sponefull at ones, Take the rootes of whit klelebour and blak elebore and the Rootes of Astrologia rotunda the Rootes of Radishe and the leaves of Lawrell of eche like muche and put all thes in good reade wyne, After streine yt and put thereto honye to make yt delycate / And in the space of xv daies with vsinge of this drinke the child shalbe hole, And the Scrophule is soft in touching And the Glandule is harde ./ (f. 51v).

In this part of the treatise, the author is explaining how to heal the scrofula [scrophule], defined by the *Oxford English Dictionary* (henceforth *OED*) as “a constitutional disease characterized mainly by chronic enlargement and degeneration of the lymphatic glands, also called king’s evil and struma.” The author lists the necessary ingredients for the preparation of a drink to heal the child in two weeks. This fragment exemplifies this new surgery, which is not only concerned with the explanation of the procedures to carry out several operations, but also with prescribing complementary and/or alternative options for healing. In (4), the author deals with the treatment of the mormal or inflammation in the skin, for which he prescribes a medicinal drink to be prepared using a long list of ingredients. For the purpose, all the ingredients and the cooking procedure are provided.

- (4) And if the mormall be causid of the second manner, First thou shalt make Syrup to clenys the bodie in this manner. {f. 70r} Take the rootes of fenell and of parsilie of radishe of gladen of astrologia longa and rotunda of eche *half a* handfull madens haire harts young scabions fumiter germander medratill of eche *j quarter* of a handfull egremoyn colaver forte / pigle vngle daisie Strauburie wises pimpernell betonie tymey heyhane of eche *ijj quarters* of a handfull, of Wannes *ij* handfull, of the rootes of madder *ijj* handfull First weshe the rootes clene and



the herbes and stampe them small and put them to a gallon of good wyne or read viniger in an erthen pott and let them rest so together the space of ij daies and ij nightes Then boile it vpon a soft fier to the third parte of the lycour be wastid then strein it through a clothe *and* take hede how much lycour ther is and put therto the third parte of clarified honie and put it on the fier againe and make it boile with a soft fier half j quarter of an hour then let it kele and put it into a glas, of which thou shalt giue the patient to drinke euerie daie iiij sponefull with vj sponefull of water fasting in the morning This syrup shall clenys the sore and suffer no corruption abyde therin and yt shall cast the matter furthe of the bodie that causithe the mormall Also it is good for appostemes bredd in the bodie (ff. 69v–70r).

Apart from medicinal drinks, the surgical treatise in H135 also contains instructions for the preparation of different salves, electuaries and ointments with different applications, as in (5),

- (5) Off restoringe of good fleshe in a wounde The causes whre the fleshe is not sonne restorid and genderid againe in a wound are thre, one is, For if ther be a greate quantitie of fleshe stricken awaie it must nede be longer in restoring, another is if ther happen to be greate holones in the wound which maie happen bicause the patient is disobedient and will not suffer him to dight it as it ought to be the third maie happen by misconyng or ignorance of the surgeon which thinge thou shalt helpe in this manner Take shepe talow j *pound* colophome *half a pound* waxe iiij *vnces* meate oile *half a pynt* powder of olibanum mastick and myrr of eche ij *vnces* First melt thy shepe talow waxe and oyle together and set it from the fier and strew therin powder of Olibanum mastick and frankencence and let it boile together and kepe yt to thie vse this oyntment is *precious* for it engendrithe {f. 59r} Fleshe annon and fillithe vp the holes in a wounde if ther be no



dead flesh therin before And if ther be then thow must fret it awaie
before thowe laie to of this Salve (ff. 59v–59r)

These excerpts show the new nature of surgical texts, in which surgery and physic are joined in order to offer a better service to the patient. Furthermore, the treatise also provides the reader with instructions on how to prepare ‘unguentum fustum’ or ‘unguentum viride’, among others, which also had different properties and were prescribed for diverse purposes.

4. The medical recipes in H135 (ff. 74r–121v)

Recipes are the written representation of domestic medicine, which was free of commercial, professional or hierarchic relationships, and that no doubt constituted the most important form of health care in the early Modern period, as “the decision to call a physician, surgeon, apothecary or other forms of paid medical practice usually followed the failure of domestic treatment to cure or alleviate conditions” (Leong and Pennell 2007: 134–136). The importance of this genre is supported by the vast amount of early Modern handwritten recipe collections in the libraries, which are the result of people’s efforts in preserving the oral exchange of medicinal advice (Wear 2000: 51; Leong and Pennell 2007: 138).

The fact that the most serious illnesses were usually treated at home and the small-scale and specialised nature of semi-institutional care for the sick confirm the individualistic, one-to-one nature of early Modern English medicine, centred on transactions between single patients and their families and single practitioners. In such a setting medical knowledge became accessible to lay people as well as practitioners. (Wear 2000: 25). There were different ways in which the recipes were collected and then disseminated throughout the early Modern society, although two sequential phases could be drawn. First, the recipes prescribed by physicians or other medical practitioners were used by patients, who paid for them. Second, these patients would pass them on to members of their



family, neighbours or other acquaintances. In addition, books of recipes could be given “as part of a dowry or as a wedding gift” (Leong 2005: 131–133). In this transmission of knowledge from learned to lay people, recipes came from a commercial relationship to a non-commercial, altruist health care. Even though practitioners lost profit with the circulation of books of recipes, they did not always condemned this practice, as a good remedy with their name attached to it could bring them relative fame in the town or city and could entail future business (Leong and Pennell 2007: 144).

Sixteenth-century remedies, therefore, were characterised not only by the retrieval of classical drugs, but also by the discovery of new vegetable products from America and the Indies and the use of chemical substances. These ingredients allowed apothecaries to prepare ‘simples’, a remedy in which one single remedy was employed,

For vexinge or hickop drinke the iuce of rew with ale aand suger (f. 95v).

or ‘Galenicals’, which was the name for those compounds containing animal and mineral ingredients, together with herbs (Porter 1997: 190–191).³⁵

Vnguentum veni mecum Taike borage femitorie selven, scabions the leves,
elicampana red dock the clote bothe leves and roote of euerie one ana bruse
them well together and let them lye xi daies Then put therto theyr weight
of swyne greace boyle yt and streyn yt and kepe it in boxes This oyntment
is good for the iche *and* the scabb, for the morfew, for scaldinge etc. (f.93r).

Theriac and mithridatum, in turn, were the most popular until the early Modern period, when compound remedies started to proliferate. This proliferation every now and then entailed distortion in the nature and quantity of the ingredients,

³⁵ According to Leong, the majority of the ingredients used were herbs commonly found in household gardens or well-known spices. Furthermore, an analysis of over 9,000 recipes in 28 collections (15 manuscripts and 13 printed) revealed that rose, wine, sugar, honey, egg and a number of herbs and spices such as rosemary, nutmeg, aniseed, liquorice and cinnamon were among the most common ingredients (2005: 98–105).

and “one of the aims of the authorisation of European cities of official pharmacopoeias was to ensure that certain compound remedies were made according to standard sets of ingredients” (Wear 2000: 92).³⁶

Women were the main producers of this kind of material, as the close relationship between cooking food and preparing medicines confined medicine to the context of the kitchen and women. In this context, it was usual to find remedies attached to a doctor’s name in the Tudor household. Furthermore, from a social point of view, women were expected to master the manufacture of remedies, a knowledge that came to them by the reading of books or by word of mouth (Wear 2000: 47–52).³⁷ These pieces of medical writing were produced for lay and medical readership. Learned physicians harshly criticised the remedies produced by women and other laymen, arguing that they lacked both the experience to properly “pick, store and process herbs” and “the popular knowledge of herbs, whether local or from the Indies and America” (Wear 2000: 48).³⁸ In this vein, there were moments in which physicians had to deal with patients that

³⁶ Theriac, considered to be the panacea of the ancients, is an example of these distortions, containing approximately a hundred ingredients and being impossible to create by 1540s, as many of its ingredients were unknown and more than twenty substitutes were needed (Porter 1997: 192). Terminology also often created confusion. Greek, Latin and the various early modern European languages had different words for the same herb and it was not always certain that one and the same herb was being referred to in the lists of synonyms that herbalists compiled for an herb (Wear 2000: 58).

³⁷ Leong points out that “contemporary advice literature, such as Gervase Markham’s *The English Housewife*, presented medical knowledge as essential to any early modern housewife, and the papers of gentlewomen like Margaret Hoby, Grace Mildmay, and Alice Thornton (to name but a few) attest that these views were not only prescribed but also followed” (2008: 147; see also 2014: 556).

³⁸ In this vein, Wear argues that “the picking of plants was viewed as the first stage in the making, or the manufacture, of remedies. As such it was placed within the area of expertise of the apothecary and of its ostensible supervisor, the learned physician. The efficacy and goodness of the herbs that were used in remedies were a constant source of concern; [as] their power depended especially on when and how they were gathered” (2000: 65).



could read scientific writing and had their own ideas of the treatment of their disease, which they defended by reference to books they had read (Jones 2011: 38).



CHAPTER 2

MS HUNTER 135: CONTENTS, OWNERSHIP AND PHYSICAL DESCRIPTION

The present chapter is divided into three different parts: contents, ownership and physical description. In the first, the different treatises in the volume are enumerated and the object of study of the present dissertation stated. The second describes the former owners of the manuscript. Finally, the physical features of the witness and the punctuation system are analysed.

2.1. Contents

H135 is housed in Glasgow University Library. Referenced MS Hunter 135 (T.6.17), it is a sixteenth-century volume containing five treatises, the second and approximately half the third being the object of study in the present dissertation, that is, ff. 34r–121v.³⁹

- *Medica Qvaedam* (ff. hv–32v), Latin and English by unknown author.⁴⁰
- *De Chirvrgia Libri IV* (ff. 34r–73v), English by unknown author.
- *Medica Qvaedam* (74r–159v), Latin and English by unknown author.
- *Practica Chirvrgiae* (ff. 159v–208v), Latin by John Arderne.
- *Medica Qvaedam* (ff. 208v–234v), Latin and some English by unknown author.

³⁹ These two texts constitute the English component of H135: a surgical treatise (19,348 words) and a collection of medical recipes (19,482 words).

⁴⁰ This part of the manuscript is mainly composed of an alchemical treatise (ff. 3v–23v) in Latin and English as well as a geographical treatise (ff. 24r–32v) in English.

The remaining pages contain three tables of contents in ff. cr-hr,⁴¹ ff. 235r–242v and ff. 243r–244v, respectively.⁴² While the two first table of contents correspond to the texts in H135, the third does not, as it refers to a text entitled ‘The Secrets of Alexis’, a very popular collection of medical and technical receipts due to its numerous editions in Italian and other European languages such as French, among others (Ferguson 1930: 225).

Apart from the third table of contents, the existence of the other two in H135 shows how different readers would create different custom tables of contents according to their interests. It reveals the existence of other former owners of the manuscript, as they represent these people’s preferences towards the different topics in the manuscript.

The table or calendar of this booke appertaininge to all the tyme of the year in the letters and figures to any tyme in the yere, and thereto belongeth in this booke, and that is by yere.

Item	Page
Aqua fortis	71 18
Aqua ambrosiana	6
Aqua de lumen amara	7
metallum anglo excepit	7
Aqua tartaria	8 19
Aqua fons et origo	20
metallum feruum	20
Aqua mercuria	9
aluminis villa uolu	10
aluminis ingens	11
aluminis coloratum	12
Argentum rorans	13
aluminis artificiale	13
Argentum confectio	14
Argentum	15
Aqua tonali	16
Antiochian tonali	17
Aluminis Tonali	18
aluminis Tonali	19
Aqua ex aqua	20
aluminis Tonali mortuaria	21 100
aluminis Tonali mortuaria	125
tonali	126
Aqua Tonali	127
Aqua Tonali ad Tonali	128
Aqua Tonali ad Tonali	129
Tonali	130

Fig. 2.1. Table of contents at the beginning

The table or calendar of this booke appertaininge to all the tyme of the year in the letters and figures to any tyme in the yere, and thereto belongeth in this booke, and that is by yere.

Item	Page
Aqua quid sit	222
Am carnis	97
Appetite	222
Aqua uita	112, 210, 222
Aqua	53, 59, 60, 191
Appetitive	24
Antiochian tonali	22
Aqua tonali	3 points eler water
Argentum tonali	152 castl sops becham bath
Aqua fortis	18, 4 spoonfulls eler water
Aqua tartaria	9, 9 C omie trach, inward
Aqua fons et origo	20
metallum feruum	20
Aqua mercuria	9
aluminis villa uolu	27
aluminis ingens	28
aluminis coloratum	29
aluminis artificiale	29
Argentum confectio	29
Argentum	30
Aqua tonali	31
Antiochian tonali	32
Aluminis Tonali	33
aluminis Tonali	34
Tonali	35
Aqua ex aqua	36
aluminis Tonali mortuaria	37
aluminis Tonali mortuaria	38
tonali	39
Aqua Tonali	39
Aqua Tonali ad Tonali	40
Aqua Tonali ad Tonali	41
Tonali	42
tonali	43
Aqua Tonali	44
Aqua Tonali ad Tonali	45
Aqua Tonali ad Tonali	46
Tonali	47
tonali	48
Aqua Tonali	49
Aqua Tonali ad Tonali	50
Aqua Tonali ad Tonali	51
Tonali	52
tonali	53
Aqua Tonali	54
Aqua Tonali ad Tonali	55
Aqua Tonali ad Tonali	56
Tonali	57
tonali	58
Aqua Tonali	59
Aqua Tonali ad Tonali	60
Aqua Tonali ad Tonali	61
Tonali	62
tonali	63
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Aqua Tonali ad Tonali	65
Aqua Tonali ad Tonali	66
Tonali	67
tonali	68
Aqua Tonali	69
Aqua Tonali ad Tonali	70
Aqua Tonali ad Tonali	71
Tonali	72
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Aqua Tonali ad Tonali	75
Aqua Tonali ad Tonali	76
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Aqua Tonali	79
Aqua Tonali ad Tonali	80
Aqua Tonali ad Tonali	81
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Aqua Tonali ad Tonali	85
Aqua Tonali ad Tonali	86
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Aqua Tonali ad Tonali	90
Aqua Tonali ad Tonali	91
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Aqua Tonali ad Tonali	95
Aqua Tonali ad Tonali	96
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tonali	98
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Aqua Tonali ad Tonali	100
Aqua Tonali ad Tonali	101
Tonali	102
tonali	103
Aqua Tonali	104
Aqua Tonali ad Tonali	105
Aqua Tonali ad Tonali	106
Tonali	107
tonali	108
Aqua Tonali	109
Aqua Tonali ad Tonali	110
Aqua Tonali ad Tonali	111
Tonali	112
tonali	113
Aqua Tonali	114
Aqua Tonali ad Tonali	115
Aqua Tonali ad Tonali	116
Tonali	117
tonali	118
Aqua Tonali	119
Aqua Tonali ad Tonali	120
Aqua Tonali ad Tonali	121
Tonali	122
tonali	123
Aqua Tonali	124
Aqua Tonali ad Tonali	125
Aqua Tonali ad Tonali	126
Tonali	127
tonali	128
Aqua Tonali	129
Aqua Tonali ad Tonali	130
Aqua Tonali ad Tonali	131
Tonali	132
tonali	133
Aqua Tonali	134
Aqua Tonali ad Tonali	135
Aqua Tonali ad Tonali	136
Tonali	137
tonali	138
Aqua Tonali	139
Aqua Tonali ad Tonali	140
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As observed in Figures 2.1 and 2.2, both tables of contents have the same introductory words and are arranged alphabetically, taking into account just the first letter of the word. Some parts of the texts are listed more than once in the same table of contents, albeit with different names (i.e. ‘hering’ and ‘deafness’).

Regarding the origin of the texts under study, the English medical recipes are, as far as I have been able to investigate, an original text inasmuch as they are recipes that were plausibly collected from different sources, from those coming directly from the Old English tradition to orally-transmitted ones. *De Chirvrgia Libri*, in turn, has been identified by Voigts, who states that there are four other versions of it in New York, Academy of Medicine, MS 13; Bodleian MS Ashmole 1468; and BL MS Sloane 2463 and 3486. This surgery is largely based on the *Chirurgia Magna* of Guy de Chauliac, with interpolations of Henry de Mondeville and others (Voigts 1995: 261).

2.2. Ownership

The volume is part of the collection of manuscripts from the personal library of William Hunter, a British physician, anatomist, man-midwife and book collector (1718, Long Calderwood, Scotland - 1783, London, England). He started attending the University of Glasgow in 1731 and left it in 1736 without graduating. He then attended lectures on anatomy by Alexander Monro and Frank Nicholls, on midwifery by William Smellie and on natural philosophy by John Desaguliers. In 1743 he left for Paris where he attended lectures on anatomy and surgery by Antoin Ferrein and H. F. Le Dram, respectively. While in France (1743–44 and 1748), he observed that individual medical students were provided with cadavers for dissection, and he introduced that practice in Britain.⁴³ Hunter’s discoveries, which have come to us through his students’ notes, made him a well-known physician in the eighteenth-century. He eventually started working for

⁴³ In October 1746 Hunter took advantage of the split between the barbers and the surgeons and advertised his first anatomy course (Lawrence 2007: 5).



the royal family in 1761 and was appointed Professor of Anatomy in 1768 by the Royal Academy (*Oxford Dictionary of National Biography*, henceforth *DNB*; *Encyclopaedia Britannica*, henceforth *EB*).

William Hunter was also a collector of coins, insects and other curiosities, and he owned a library that contained over 10,000 books, including 534 incunabula and 656 manuscripts. When he died, under the terms of his will, the whole collection remained in London several years for the use of his nephew, the physician Dr. Matthew Baillie (1761–1823). It was not until 1807 that the collection was moved to the University of Glasgow (*DNB*; *EB*). Unfortunately, no information regarding the historical moment in which H135 was acquired by William Hunter has been found and, as a consequence, the information about the former owners of the manuscript has come to us in the shape of different inscriptions throughout the witness.

Apart from William Hunter, two other names appear in the volume, suggesting that these two men were formerly in possession of the volume. These men are Henry Swinburne and Leonardus Cooke, appearing at the end and at the beginning of the volume, respectively (see Figures 2.18 and 2.19, respectively). A palaeographic analysis helps determine the chronology of the different owners of the manuscript, as the name of Henry Swinburne is rendered in an early-seventeenth-century script, a fact that indicates that he owned the volume before Leonardus Cooke, whose name appears in a late-seventeenth-century hand (Young and Aitken 1908: 123; see also Figures 2.18 and 2.19 below).

The biographical information of Leonardus Cooke is almost non-existent, and the only data that I have been able to find is that he was plausibly a curate in London in-between the years 1628 and 1633 under the bishop William Laud (*Clergy of the Church of England Database*).

Finally, the first known owner of the volume, Henry Swinburne (c.1551–1624), was an ecclesiastical lawyer born in York, where he lived most of his life.



He is the author of two books that became deeply influential in topics such as the complex testamentary and matrimonial law of the sixteenth and seventeenth centuries: *A Briefe Treatise of Testaments and Last Wills* (1591) and *A Treatise of Spousals, or Matrimonial Contracts* (posthumously, 1686). When he died, at the age of 73, the beneficiaries of his will were his wife and his only son, Toby (1613–1656), who inherited Swinburne's books and later became a civil lawyer (*DNB*).

2.3. Physical description

The present section addresses the physical description of H135. These data are the result of the examination of the digitised images provided by the Glasgow University Library, together with a meticulous *in situ* examination of the original witness in the library. Young and Aitken's *A Catalogue of the Manuscripts in the Library of the Hunterian Museum in the University of Glasgow* (1908) has also been helpful.

2.3.1. Codicology

Codicology is the study of the volume as a physical object, that is, binding, quiring, etc. It was defined by Grujis as,

a multidimensional approach to the codex as object-in-itself, and as cultural phenomenon. In the more restricted sense of the word, codicology comprises the investigation of all physical aspects of codices, together with the indispensable interpretation of the results which such a synthesis has to provide for subsequent historical research (1972: 102).⁴⁴

Thus, the present section analyses and faithfully describes external features of the volume such as material, dimension, ink, decoration, quiring, ruling and foliation.

⁴⁴ According to Grujis, “codicology derives from the Latin noun *codex*; also spelt *caudex*, which originally meant a tree-stump, and later on a block of wood or a board. Etymologically, it appears to come from the Latin verb *cudere* ‘to cut or hew’” (1972: 87).

2.3.1.1. Material and dimension

H135 is a bound volume written in vellum, approximately 31 lines to a page in a single textblock (Young and Aitken 1908: 122). Parchment was the chief surface upon which scribes performed their task. This material was generally made from the skin of sheep or goats (sheep-skin prevailed in England), although the skin of lambs, kids or calves was employed for important manuscripts, hence the name vellum, from the Latin *vellis*, meaning calf (Petti 1977: 4; De Hamel 1992: 8).⁴⁵

H135 comprises 245 vellum leaves that are 19.6 / 20.3 x 14.8 / 15.3 cm, the text occupying an area of 15.2 x 10.1 cm. The volume's dimensions are 21 x 16.1 x 6.3 cm (length, width, depth). The vellum is in overall good condition, the versos being whiter than the rectos, showing a yellowish colour. According to Hector, in almost all parchment there is a conspicuous difference in colour and texture between the flesh side and the hair side, the former being "whiter and somewhat smoother while the latter may be dark enough to be called 'brown'" (1958: 16). Some folios have become deteriorated due to the passing of time:

- ff. 6, 44, 169 and 176 present a hole in the bottom margin.
- f. 86 is wrinkled due to dampness.
- f. 16 is spotted with stain.
- f. 32v is extremely stained, a fact that may explain the reasons why f. 33 is missing.

⁴⁵ Parchment reached a higher quality during the late Middle Ages, when it began to be manufactured by craftsmen who managed to produce large quantities of parchment with similar thickness, stiffness and colour. Four kinds of parchment can be distinguished: calfskin (*carta vitulina*, vellum) was the largest in size and had an even surface, its hair side and flesh side having approximately the same white colour; sheepskin (*carta ovina*, *froncina*), was sometimes greasy or wrinkly, the hair side mostly yellowish, the flesh side white; the hair side of goatskin (*carta caprina*) is marked by the characteristic 'morocco' grain, often still showing the dark spots of the animal's hair; and uterine vellum (*carta abortiva*, *virginea*), made from the skin of unborn calves or lambs (Derolez 2005: 31).



- ff. 40, 41, 46, 105 and 121 have sustained damage and loss at the outer margin (Figs. 2.3 and 2.4 below).
- ff. b and 245 are much more deteriorated than the rest, pointing to the fact that these two folios were originally the cover and back, respectively.



Fig. 2.3. Damage at the outer margin in
f. 41⁴⁶

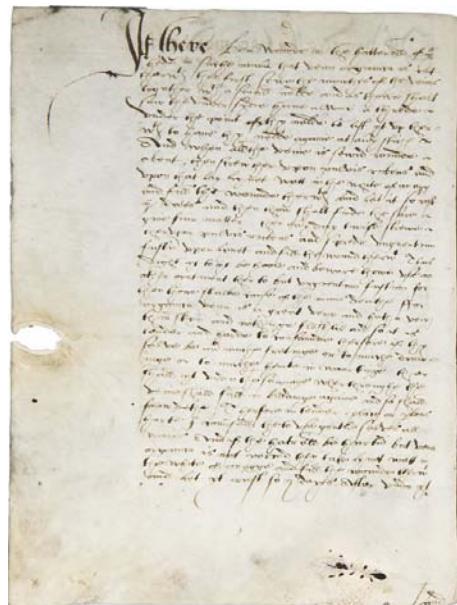


Fig. 2.4. A hole at the outer margin in f.
46

2.3.1.2. Ink and decoration

The inks employed in the production of manuscripts were thicker and more glutinous than modern commercial ink, and there were different recipes for their manufacture. It was basically black and could be made by mixing carbon with gum and water or from gall and iron sulphate (Petti 1977: 7; De Hamel 1992: 27). These recipes are found in numerous medieval and renaissance manuscripts, and H135 is not an exception to this as it contains a recipe ‘To make blak ynk’ in f.

⁴⁶ Notice the different shades in the vellum of these two folios, as f. 41r is slightly yellowish while f. 46v presents a whiter colour.

174r, even though the nature of the remedies in that section of the volume is purely medical.

To make blak ynke

Take a pound and a half of rayn watter with 3 owncs of the weightiest galls you can get bruse theim into peeces but not into powder and powre theim into þe said water. and let it stand. 2. days in the sune then put to it 2 ouncts of romain vitriol⁴⁷ being within like to the colour of þe elyment and beat it into small powder and mix all well together with a stik of a fygg tree or walnut tre /or a peece of licores\ and leave it again 2 days moore in the Sune / Finallie put to it one ownce of gume Aralyke that is clere brittill (for the best wilbe easelye Bet into powder) bet into powder and an ownce of the pills of pomgarnetts and then boile yt a lyttill with a slow fier that doone streane it and kepe it in a vessel of lead or glasse and it wilbe vere perfite and blak and upon the lees that shall remayne in þe bottom you may powr other water and boil it a litill and stream yt and you may still put moore water vpon þe same lees vntill you see that the water wilbe colored no moore with theim / Then mingle all the said waters wherunto you shall put other galls gums and vitriol as at the begynning and setting it in the Sune you shall haue a better ink then at the beginning (f. 174r).

H135 is written with brownish ink,⁴⁸ whose shade varies throughout the manuscript, as shown below. Petti states that, “although initially [iron gall ink] became quite dark through oxidation, it eventually faded, sometimes to a quite light brown ‘shade’” (Petti 1977: 8). Therefore, the varied brownish tonality of the ink in H135 leads us to think that it was iron gall ink or with added carbon.

⁴⁷ Coperas and vitriol are synonymous terms for what the modern chemist calls ferrous sulphate (Hector 1958: 20).

⁴⁸ Lampblack (made from dense carbon, gum and water) was “used extensively on papyrus but was less suitable for parchment because the ink sat on top of the parchment and [...] could eventually disintegrate. A better ink for parchment was iron-gall ink, [...] which worked its way into the parchment rather than simply sitting on top of it” (Clemens and Graham 2007: 19).



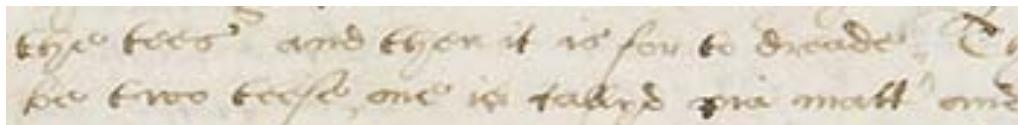


Fig. 2.5. f. 34r

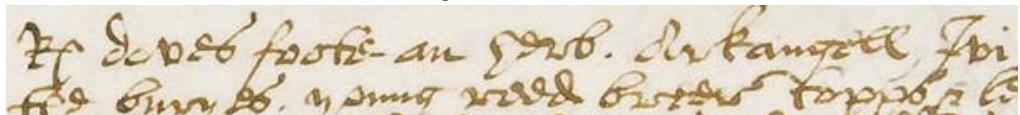


Fig. 2.6. f. 74r

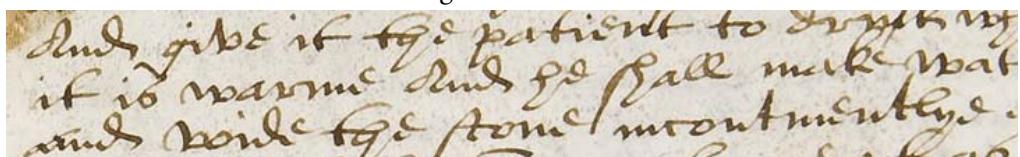


Fig. 2.7. f. 99r

The decoration of manuscripts came after the text had been copied, where the scribe would leave room for rubrication, decoration and illustration (Clemens and Graham 2007: 20). No completed medieval manuscript would lack any of these parts, as manuscripts were considered pieces of art. During the latter part of the Middle English and the beginning of the early Modern period, “innovation took place in the pictures that accompanied the text, while initials and other elements of decoration where more and more standardized due to production needs” (Derolez 2003: 40).

When it comes to decoration, the richest part of H135 is the treatise on surgery in ff. 34r–73v. The beginning of the treatise and the beginning of relevant sections are decorated with a more elaborate script, bolder and darker than the body text. In addition, the end of each chapter is marked with an ornamented, bottom-centred Latin inscription. The lack of illumination or floral ornaments indicates that this volume may have been created by one single person, without the intervention of illuminators.

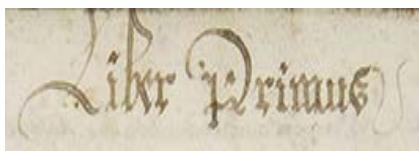


Fig. 2.8. Beginning of the surgical treatise (f. 34r), 'Liber Primus'

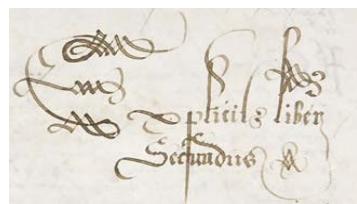


Fig. 2.9. End of the second chapter (f. 55r), 'Explicit Liber | Secundus'

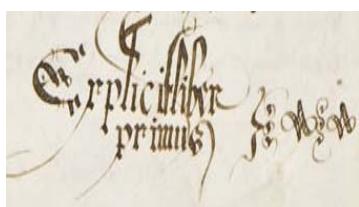


Fig. 2.10. End of the first chapter (f. 45v), 'Explicit Liber | Primus'



Fig. 2.11. End of the third chapter (f. 67r), 'Explicit Liber | Tertius'



Fig. 2.12. End of the surgical treatise (f. 73v)
'Finis Huius Libri'

The only illustration in H135 is the head of a man where a dot is indicating the location of the pain. It appears in the outer margin of f. 90v, containing a recipe against the migraine, and the ink used for its rendering allows us to determine that it was done by the same scribe who wrote the remedy.

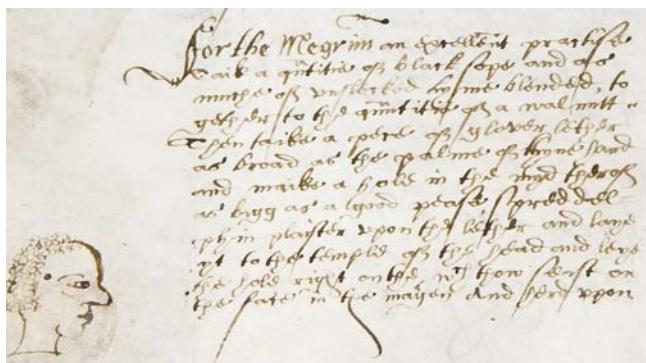


Fig. 2.13. Illustration of a head (f. 90v)

2.3.1.3. Binding and quiring

The binding was the last stage in the creation of a book, after the text had been copied, the folios illuminated and the illustration included. According to De Hamel, it was the task of the stationer or bookseller, who would have to “collect up all the quires, reassemble them into order, and hold them together in some serviceable binding” (1992: 65).

The first step was the sewing of the quires into the sewing supports⁴⁹ in the spine of the book (Clemens and Graham 2007: 49). 29 quires were needed for the creation of H135, together with two flyleaves at the beginning of the volume and five at the end. The volume presents an irregular *bifolia* quiring, as some quires contain four *bifolia* (quires 1–19, 21, 23) and others contain five *bifolia* (quires 20, 22, 24–29).⁵⁰ This was a regular practice during the Middle Ages,

⁴⁹ The sewing supports were usually made of tawed leather (leather produced by steeping animal skins in alum solution), and each support would have a central slit along most of its length, but not at the ends. The number of sewing supports would vary depending on the size of the book (Clemens and Graham 2007: 50).

⁵⁰ Petti states that “the number of leaves in a quire could vary considerably [...]. However, the standard quire was a quaternion (*quaternio*), comprising four sheets folded in two (*bifolia*). [...] The sheets were then so ordered that the outer one formed folios one and eight, the next two and seven, and so on” (1977: 6).

although “the relative thinness of the material often induced producers of books to use quires of more than four *bifolia*, indeed of six or up to twelve and even more *bifolia*” (Derolez 2003: 32; Romero-Barranco 2015: 4). The whole quiring framework can be found in Section 2.4.

After sewing all the quires onto the sewing supports, the book was ready to incorporate the cover and the back, which were made of wood covered with pigskin, calfskin or goatskin (Clemens and Graham 2007: 52–53). The binding in H135 is not the original and it dates back to the eighteenth century.⁵¹ The cover is a millboard covered with spattered calfskin with the title ‘MEDICAL | & CHIRURG. MS’. and the back is gilt-panelled (Young and Aitken 1908: 122).

2.3.1.4. Ruling

The ruling of the folios was usually performed by means of a pencil or plummet, and helped the scribe maintain the lines of the text straight. According to Petti, “before the writing commenced [...] a frame was provided for the writing area of each page and the lines ruled” (1977: 6).⁵² In the late fifteenth century ruling became less fashionable and only the frame remained, an element that would be omitted from the sixteenth century (Petti 1977: 6).

H135 only presents the frame for the text in each folio, made in plummet or pencil (Young and Aitken 1908: 122). Due to the fact that the plummet or pencil was used, the frame has been completely erased in most of the folios, and it is hardly recognisable in some others.

⁵¹ According to Derolez, “most medieval manuscripts have been rebound since the sixteenth century, often more than once” (2003: 44).

⁵² In the date of composition of the present manuscript, ruling was invariably traced on the hair side of the parchment, so that the ridges appear on the flesh side (Derolez 2003: 35).



Fig. 2.14. Ruling in H135 (f. 35v)

2.3.1.5. Foliation

Foliation was conceived as an aid to the ordering of the folios, and also for referencing purposes.⁵³ There were different ways of maintaining the quires in a manuscript in order: quire-marks or quire numerals consisted of a Roman numeral written in the lower margin of the first or last page of a quire; signatures indicated not only the order of the quires, but also of the *bifolia* of each quire; and catchwords (sometimes called stitchwords) were written at the end of each folio so that the scribe would know the first word in the next one and he would not miss any page nor copy a page twice (Derolez 2003: 35; Clemens and Graham 2007: 49).

⁵³ From the fourteenth century, it was common to number the leaves of the first half of the quire, to ensure that the pages of the quire were in the correct order. These numbers were formerly Roman numerals in red, blue or green ink, and by the fifteenth century they started to be written in black ink and changed to Arabic numerals (Petti 1977: 6-7). Scribes sometimes copied their works unthinkingly, and this led them to copy quire numerals and even catchwords that did not belong to the actual volume in which they were working (Clemens and Graham 2007: 49).

H135 features foliation in the top right corner of each folio recto, where the scribe includes the reference to each folio in Arabic numerals. Furthermore, catchwords, rendered in the same hand as the body text, are also witnessed in every folio with the only exception of the final folios of each chapter in the surgical treatise (ff. 34r–73v) and those folios in which the catchword has been lost most likely due to the re-binding process to which the volume was subjected.

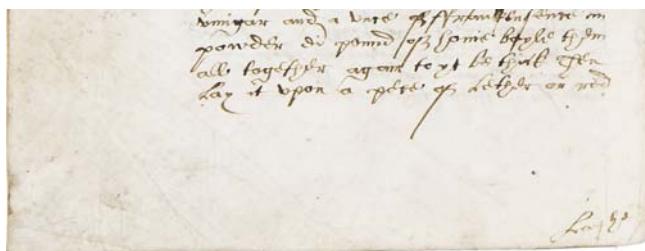


Fig. 2.15. Catchword in f. 93v, bottom margin. 'laishe'



Fig. 2.16. Foliation in f. 57r, top margin

2.3.2. Palaeography

Palaeography, as the *OED* defines it, is “the science of art of deciphering and determining the date of ancient writings or systems of writing.” Denholm-Young points out that “the business of a palaeographer is not only to read, classify, date, and determine the provenance of a manuscript, but to recognize textual errors that spring from the scribe’s misreading of what he is copying” (1954: 1). Consequently, studies in Palaeography become particularly handy when it comes to the dating of historical manuscripts, as variation between two different scripts

can be detected in any fifty-year period in the history of English handwriting (Dawson and Kennedy-Skipton 1968: 8).

When it comes to handwriting in Tudor England, two different scripts can be witnessed: the Tudor Secretary⁵⁴ and the Italic (also known as Humanistic or Italian). It must be noted that, while the Tudor Secretary script was the evolution of the former Secretary script that had been in use from the beginning of the fifteenth century, the Italic was “a markedly new development in Tudor England” (Preston and Yeandle 1999: viii; see also Jenkinson 1927: 54–57; Denholm-Young 1954: 71–76; Hector 1958: 60; Fairbank and Wolpe 1960: 28–34; Dawson and Kennedy-Skipton 1968: 7–10; Petti 1977: 14–18; Marshall 2004: 23).

The Secretary script was the usual hand from 1525 until about 1650, being used “for business both governmental and private, for many kinds of records, correspondence, for literary composition” (Dawson and Kennedy-Skipton 1968: 8).⁵⁵ According to Tannenbaum, “this hand [...] followed the letter forms of the large bastard hand and [...] it was the finest of the free hands that developed from the bastard Gothic” (1930: 13). For the sake of description and classification, Petti distinguished three different phases in the Secretary script: early Tudor Secretary,

⁵⁴ The word ‘Secretary’ did not seem to mean writer in medieval times. The Tudors, “by elevating the position of Secretary of State, brought the word into prominence but its increased use is probably more attributable to the increased use of writing everywhere which led to many people imitating the Royal custom of keeping a confidential servant for the special purpose of their personal correspondence” (Jenkinson 1927: 57; Tannenbaum 1930: 13). As for the letterforms in the period, Brown argues that “the Gothic cursive scripts of the 15th to 17th centuries in England, and elsewhere in Europe, are among the hardest to read of all the scripts normally considered by paleographers” (Brown 1968: v).

⁵⁵ According to Fairbank and Wolpe, “the credit for being the first to introduce humanistic cursive into England is given traditionally to Petrus Carmelianus, [...] a poet who became Latin secretary to Henry VII, lute-player to Henry VIII, and prebendary of York” (1960: 29–30).



from the ascension of Henry VII to the throne until the later years of the reign of Henry VIII; the mid-Tudor Secretary, from the mid-1530s to about the beginning of Elizabeth's reign; and Elizabethan Secretary, from about 1560 onwards (1977: 16–17).

The other characteristic script of the period is the Italic script,⁵⁶ which became more and more popular in England after 1550. It developed in Italy towards the fifteenth century and it is considered to derive from the Caroline Minuscule (Jenkinson 1927: 63). The success of this script was due to its simplicity and ease of writing, on the one hand, and its grace and beauty, on the other. It took over the Secretary's supremacy in England before 1650 and “ultimately brought about its demise” (Dawson and Kennedy-Skipton 1968: 9).

These two hands coexisted and were sometimes mixed in various ways.⁵⁷ Dawson and Kennedy-Skipton argue that “in the sixteenth century, and later, writers of the secretary hand often used the italic hand to set off certain elements, such as book titles, or to indicate emphasis” (1968: 8). For an instance of this coexistence, see 2.3.2.1.1.

2.3.2.1. Scripts

The text in H135 is written using two different scripts. For the sake of description and comparison, these have been termed Hand A and Hand B in the present section. Apart from these two hands, the volume contains corrections and insertions by a later hand (henceforth Hand C), which is also described. In addition, the handwriting of three owners of the volume are shown in Figures 2.17, 2.18 and 2.19, corresponding to William Hunter, Henry Swinburne and Leonardus Cooke, respectively.

⁵⁶ Although the term applied to this kind of script was Italic, it must not be confused to the “sloping letters that we now associate with the word ‘italics’” (Marshall 2004: 23).

⁵⁷ Petti states that “the mingling of scripts is a common palaeographical phenomenon, being often the way in which new scripts are created” (1977: 20).

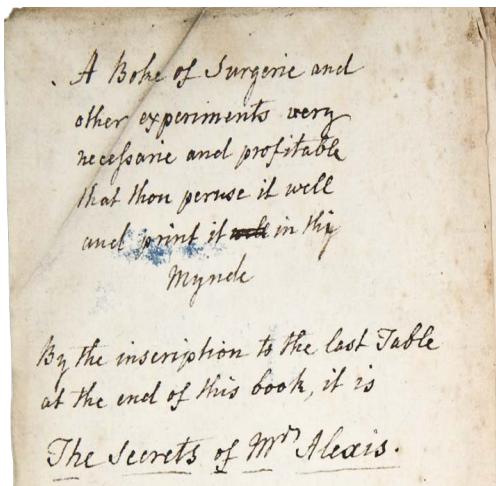


Fig. 2.17. William Hunter's own handwriting

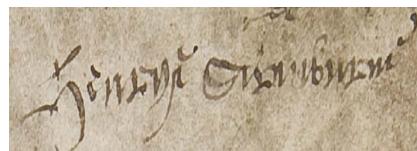


Fig. 2.18. Henry Swinburne's autograph

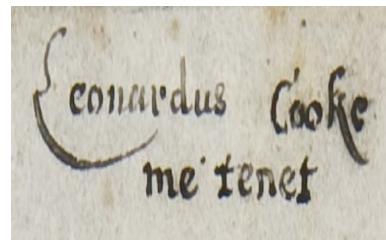


Fig. 2.19. Leonardus Cooke's autograph

Leonardus Cooke's autograph is rendered in a late seventeenth-century hand (Fairbank and Wolpe: pl. 55). Henry Swinburne is written in an early seventeenth-century hand. Finally, Hunter's eighteenth-century handwriting is a well-spaced cursive script that resembles our contemporary handwriting. Letter <s> is worth noting, represented by both sigma-like <s> and long <s>.

2.3.2.1.1 Hand A

Hand A is the main hand in H135, occupying ff. 34r–73v, 74v–98r and 101v–113v. Even though this hand is faithfully kept throughout these folios, some variation is observed in the thickness of the ductus and level of cursiveness. This variation could be said to derive from the speed with which the scribe was carrying out his task, as speed “not only modif[ies] scripts to save the labour of writing

but will also save material by a reduction of size letters, or by lateral compression, or close spacing" (Fairbank 1968: 31).⁵⁸

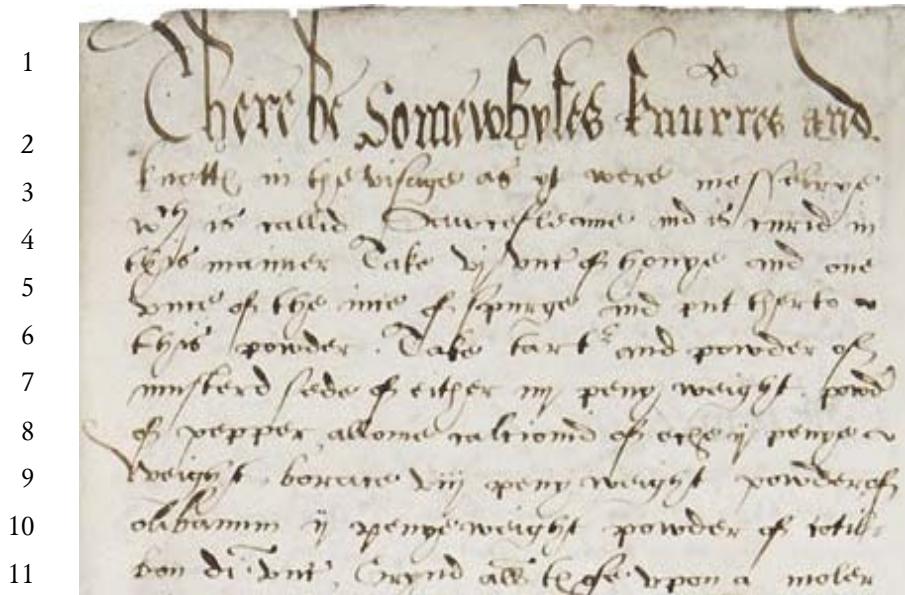


Fig. 2.20. Hand A (f. 45r)

The letterforms observed in Hand A, except for those in the title of sections (Figure 2.20 above, line 1), suggest that it is a hybrid script mainly composed of an early Tudor Secretary hand together with some characteristic features of the mid-Tudor Secretary and the Italic, which were in use in England towards the middle of the sixteenth century (see Preston and Yeandle 1999: pl. 11 and 13).

Among the letterforms belonging to the early Tudor Secretary, the following stand out: the pointed single-lobed *<a>* ('callid', 'and', line 3); the uncial *<d>* ('musterd', line 7); the looped *<f>* inclined rightwards ('of', line 5); the tailed *<g>* with a wide *u*-shaped top and a long headstroke ('visage', line 2; 'weight', line 10);⁵⁹ the letter *<k>* with a long supralinear stroke slightly curved rightwards,

⁵⁸ According to Fairbank, "speed may in time change a script, but the instinct to write legibly and with discipline and care results in the development of a new script" (1968: 31).

⁵⁹ In the Secretary script, which was a development of Caroline minuscule, "the head of the *g* was converted into a small semioval, and the infralinear loop into a simple or a sinuous tail; the flat bar,

from which two small strokes stem out upward and downward, the upper one forming a lobe ('take', line 4); a vertical stroke with a small rightward lobe at the top for the <l> ('Sawcefleame', line 3); the letters <m> and <n> written with a single stroke, where the minims are slightly curved rightwards ('manner', line 4); the short-stemmed <p> in which the stroke of the lobe crosses the shaft ('penye', line 8);⁶⁰ the round <u> written with a single stroke, resembling the shape of <n> ('spurge', line 5); the <v> written with two strokes, both of them being made from top to bottom ('visage', line 2);⁶¹ and the canonical secretary form of <w> ('powder', line 9).

The mid-Tudor-Secretary component in Hand A is represented by the single-lobed with the shaft curved rightwards ('borace', line 9);⁶² the letter <e> where the eye is usually split from the body due to the thinness of the connecting stroke ('honye', line 4); the <c> with a vertical shaft from which a line stems out leftwards ('curid', line 3); and the twin-stemmed <r> resembling *v* ('therto', line 5).

Finally, there are some letters that vary their shape due to arbitrariness or their position within the word. Thus, the letter <h> may arbitrarily feature an early Tudor Secretary shape ('this', line 4) or a shape clearly influenced by the Italic script ('those', line 11); the long <s>, in turn, is witnessed at initial and medial position ('spurge', line 5; 'musterd', line 7), while the Italic *sigma*-like <s>

closing the semioval, was made last and linked the *g* to the succeeding letter (Tannenbaum 1930: 45).

⁶⁰ Some words beginning in <p> systematically feature a long-stemmed <p> which is made in one single stroke. The contrast between these two renderings for <p> can be checked against the word 'pepper' in line 8 (Figure 2.20).

⁶¹ Hand A uses both <u> and <v> with a vocalic value, the former in medial and final position and the latter in final position.

⁶² This letter may also be represented in its double-lobed shape ('cotilbon', line 10), although it seldom occurs.



is preferred in final position ('this', line 6); the letter <t>, represented with the early Tudor vertical stem crossed at the top at initial position ('the', line 5), the mid-Tudor version, rendered with one single stroke, being preferred in medial and final position ('weight', line 7).

Apart from the body of the text, important sections are introduced by highlighted words or short sentences rendered with the Italic script, as in Figure 2.20. These letters are highlighted by means of a thicker ductus and a bigger size, which approximately doubles the size of letters in the body text. In the Italic script of H135, the following letterforms deserve particular attention: the uncial <d> ('and', line 1); the <h> written with a supralinear vertical loop followed by two semiovales, the first right-handed, the second left-handed and serving as the forelink ('There', line 1); the Italic *sigma*-like <s> ('knurres', line 1); and the letters <e> and <w> similar to their present-day realizations.

2.3.2.1.2 Hand B

Hand B, present in ff. 74r, 98v–101r and 113v–121v,⁶³ is bigger and less cursive than hand A, as well as thicker and more angular in the execution of the ductus. It is a hybrid script composed of an early Tudor Secretary combined with some characteristic letterforms of the mid-Tudor Secretary script (see Tannenbaum 1930: pl. IX; Dawson and Kennedy-Skipton 1968: pl. 41; Preston and Yeandle 1999: pl. 14). It must be noted that, even though both Hand A and B are hybrid scripts composed of early Tudor Secretary combined with mid-Tudor Secretary, Hand B is a purer early Tudor Secretary script, as it just contains two letterforms belonging to the mid-Tudor Secretary.

⁶³ Apart from being the hand in these folios, this hand is also witnessed in the marginalia of ff. 40r, 43v, 44r, 52v, 54v, 56r-v, 57r, 58v, 69r, 72r, 74r, 81v, 82v, 97r, 99v, 100v, 109v, 110r, 114r, 114v, 115r-v, 116r-v, 117r-v, 118r-v, 119r-v, 120r-v, 121r. These are mainly single words informing of the content of the adjacent text and short explanations about the topic involved.

1 the poticarie wile þine the first receipt
 2 for þid land to þe double for aynd mon
 3 þall take the first receipt wile to re
 4 ponefull of ale warme and þe double
 5 wile viij ponefull. Best receaving is in
 6 the morning fasting and to eat nothing
 7 unto it þane morngt and then to get
 8 a morsell of good meat, after wþen a man
 9 is fasting þere is nothing for it to work
 10 on but to go alerke þinmont and keþe to þe
 11 chamber and to þe gowes al that day and take
 12 regard to the Almynat for þis day. & wt.

Fig. 2.21. Hand B (f. 99v)

The following letterforms, with an early Tudor Secretary shape, represent the divergences between Hands A and B: the double-lobed **** ('chamber', line 11); a short vertical stroke and a thin horizontal stroke at the top of it for the **<c>** ('receaving', line 5); the reversed circular **<e>** ('the', line 3); and a z-form for the **<r>** ('choleryke', line 10).⁶⁴ The letters representing the mid Tudor component of Hand B are the **<d>**, which is losing its definition, and the **<p>**, which has acquired a 2 to the left of the downward stroke ('poticarie', line 1).

2.3.2.1.3 Hand C

Hand C (Figures 2.22 and 2.23) is the less frequent hand in H135 (ff. 45v, 76r, 85v, 102v) and can only be witnessed in the marginalia. However, although it rarely appears in the two sections that concern the present dissertation, its presence grows both in John Arderne's practice on surgery and the collection of

⁶⁴ This shape is only observed in medial position, while the twin-stemmed **<r>** resembling *v* is kept in initial and final position.

medical recipes in Latin. It is the same hand that collated John Arderne's practice on surgery in T.5.14 (Glasgow University Library, MS Hunter 112), and adds marginalia, interlinear additions and corrections from U.4.9 (Glasgow University Library, MS Hunter 251), also containing a version of John Arderne's practice on surgery, referred to as 'Dr. Mead's MS' (Young and Aitken 1908: 122).⁶⁵ It is a fairly legible seventeenth-century Round hand that came into use by the middle of the seventeenth century (Petti 1977: 20; for a plate of this hand, see Dawson and Kennedy-Skipton 1968: pl. 41).

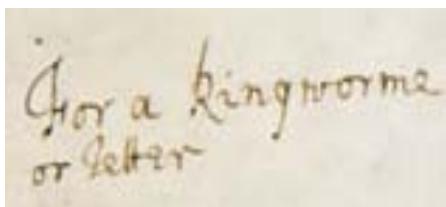


Fig. 2.22. Hand C (f. 45v)

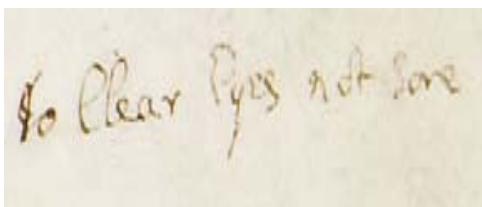


Fig. 2.23. Hand C (f. 76r)

2.3.2.2. Numerals

H135 presents Roman numerals in the body of the text, while Arabic numerals are employed in the numeration of the folios (see 2.3.1.5). According to Hector, the Roman system was employed in England "for about five centuries after the Norman Conquest [...] and they continued to be written in English archives long after Arabic numerals had become commonplace" (1958: 41–42).

⁶⁵ Richard Mead (1673–1754) was a physician and collector of books and art. His collection of books and manuscripts was second only to that of Hans Sloane. His books numbered some 10,000 volumes, including 146 incunabula and many fine bindings and his library was especially rich in the classics and in works of medicine and natural philosophy. Mead aimed to find the best editions of canonical works. One example is his fine collection of medical works, dominated by anatomy (*Oxford Dictionary of National Biography*). The fact that these inscriptions refer to Dr Mead's manuscript allows us to conclude that H135, MS Hunter 112 and MS Hunter 251 somewhat shared the same owner, who made these inscriptions.

The Roman numerals in H135 are used to indicate the specific quantities of herbs or substances in the preparation of ointments and salves (in the surgical treatise) together with the preparation of drinks and medicines (in the remedies).



Fig. 2.24. One (f. 40r)



Fig. 2.25. Two (f. 46v)



Fig. 2.26. Three (f. 106v)

Figures 2.24, 2.25 and 2.26 are the representation of numbers 1, 2 and 3, respectively. As shown, these numbers are composed of *i*'s where, when alone or in final position, the *i-longa* is preferred (Tannenbaum 1930: 153; see also Denholm-Young 1954: 79). Thus, *j*, *ij*, and *iij* stand for 1, 2 and 3, respectively.



Fig. 2.27. Four (f. 34r)

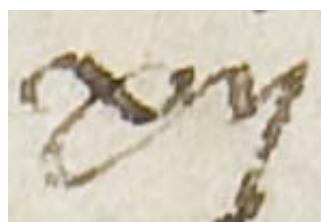


Fig. 2.28. Fourteen (f. 27r)



Fig. 2.29. Fourteen (f. 57r)

Number 4 can be witnessed in two different forms in H135. On the one hand, it can follow the sequence that has been explained above, by adding one more *i* to number 3 (Figures 2.27 and 2.29), or a single *i* accompanied by the Roman numeral *v* (Figure 2.28). While the form in Figure 2.27 is always witnessed when number 4 stands alone, some variation is found when it is part of a bigger number.



Fig. 2.30. Five (f. 60v)

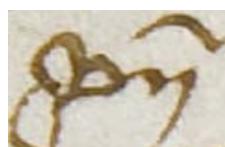


Fig. 2.31. Seven (f. 118v)

Number five is rendered with the Roman numeral *v*, as in Figure 2.30 above. In addition, the sequences in Figures 2.24, 2.25 and 2.26 are added to create higher numerals (Figure 2.31). In this same vein, number ten is represented with the Roman numeral *x* (Figure 2.32), where the same sequences are added to form the other numerals (Figures 2.28, and 2.33, 2.34, 2.35, 2.36 and 2.37).



Fig. 2.32. Ten (f. 76r)

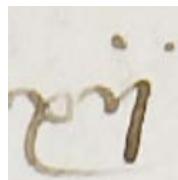


Fig. 2.33. Twelve (f. 40r)



Fig. 2.34. Fifteen (51v)

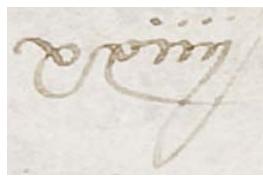


Fig. 2.35. Twenty-four (f. 82v)

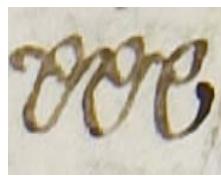


Fig. 2.36. Thirty (f. 107r)



Fig. 2.37. Sixty (f. 76r)



Fig. 2.38. Two (f. 116r)



Fig. 2.39. Three (f. 116r)



Fig. 2.40. Four (f. 100v)



Fig. 2.41. Seven (f. 120v)



Fig. 2.42. Eight (f. 118v)



Fig. 2.43. Nine (f. 120v)

2.3.2.3. Marginalia

The marginalia could be used for different purposes in handwritten documents. In H135, it is used for reference purposes. Thus, there are numerous annotations indicating the topic under discussion, explanations of the particular indications, and references to other manuscripts that were copied from the same exemplar but containing a different amount of information. These inscriptions are made by the three different hands that have been identified in section 2.3.2.1.

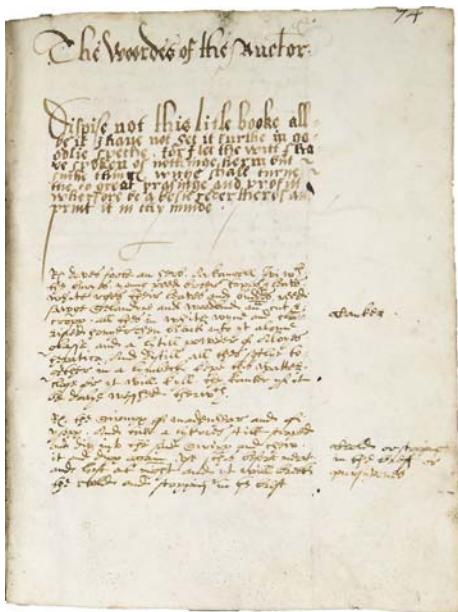


Fig. 2.44. Marginalia in f. 74



Fig. 2.45. Marginalia in f. 114r

2.3.2.4. Abbreviations

In the mediaeval period, it was commonplace among scribes to abbreviate words, a practice imported from Latin and eventually transferred to the vernacular (Tannenbaum 1930: 119). From a chronological point of view, English documents of the twelfth century display the abbreviation system in the most elaborate form, while in the latter Middle Ages some of them were gradually

discarded (Hector 1958: 29).⁶⁶ Derolez notes that genre is found to play an important role in the use of abbreviations,

as scholastic manuscripts and those of the thirteenth and fourteenth centuries in general contain without doubt the largest number of abbreviations (mostly specific to the subject concerned: theology, philosophy, law, natural science, medicine...), but the degree of abbreviation is far less in liturgical and literary manuscripts (2003: 187).

The use of abbreviations in the sixteenth century follows the mediaeval tradition, as “the need for them had become less acute as paper became more available” (Dawson and Kennedy-Skipton 1968: 19; see also Whalley 1969: ix). As a piece of sixteenth-century English *Fachprosa*, H135 contains a great deal of abbreviations, allowing the scribe to save both time and labour. The methods of abbreviation during the English Renaissance were the following: contraction, elision, absorption, curtailment, brevigraphs, superior letters and a combination of these (Tannenbaum 1930: 119). H135, however, only features contractions, curtailment, brevigraphs and superior letters.

2.3.2.4.1. Contraction

Contraction is one of the commonest methods of abbreviation, consisting in the omission of one or more letters within a word, where the number of omitted letters could vary greatly from one scribe to another (Tannenbaum 1930: 119). These contractions were rendered by means of the tilde, the most frequent symbol in this kind of abbreviations (Petti 1977: 22). In H135, this method was employed to omit one single letter in the middle of a word, as in Figures 2.46, 2.47 and 2.48.

⁶⁶ The forms of abbreviation also varied geographically, especially during the early Middle Ages, when abbreviations could provide vital clues to the origin of the manuscript (Clemens and Graham 2007: 89).





Fig. 2.46. 'commyn' (f. 118r)

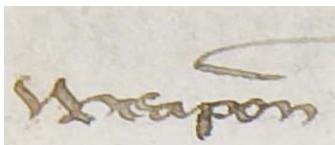


Fig. 2.47. 'weapone' (f. 34v)

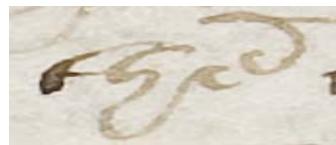


Fig. 2.48. 'then' (f. 36r)

2.3.2.4.2. Curtailment

Curtailment, also termed suspension, was the shortening of the end of the word (Tannenbaum 1930: 124). This method of abbreviation was occasionally marked with a horizontal bar above the terminal part of the word (Figures 2.49, 2.50 and 2.51).⁶⁷

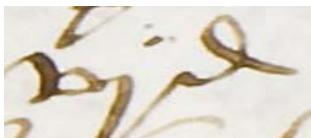
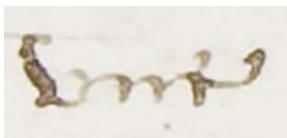


Fig. 2.49. '6 days' (f. 99r)



F. 2.50. 'vnce' (f. 42v)



F. 2.51. 'half' (f. 42v)

2.3.2.4.3. Brevigraphs

Brevigraphs are regular letters that have been slightly modified for a particular purpose, either a single letter or an entire syllable. Brevigraphs, taken from Latinate texts, were frequently used for words or syllables so that time and material could be saved (Tannenbaum 1930: 124). When it comes to brevigraphs in H135, letter <p> is the brevigraph *par excellence*, as it is the source letter for four different syllables: 'pro' (Figure 2.52), 'per' (Figure 2.54), 'pre' (Figure 2.53) and 'pri' (Figure 2.55). In addition, a symbol resembling a 9 (Figure 2.56) is used to abbreviate the group <us> (Tannenbaum 1930: 127).

⁶⁷ Due to the spelling inconsistency in late Middle English and early Modern English, it is hard to identify the omitted letter, especially at the end of words (Petti 1977: 23).



Fig. 2.52. 'pro'

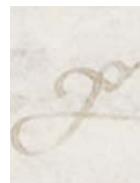


Fig. 2.53. 'pre'



Fig. 2.54. 'per'



Fig. 2.55. 'pri'

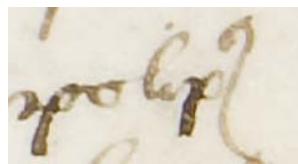


Fig. 2.56. 'polipus'

2.3.2.4.4. Superior letters

Superior letters were used to omit one or more letters, and they were placed above the line to indicate the omission. This abbreviation technique could be applied to all words and the number of omitted letters could vary depending on the scribal habit. The following superior letters can be highlighted in H135.

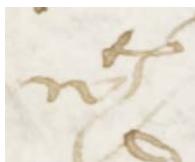


Fig. 2.57. 'with'

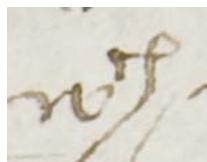


Fig. 2.58. 'which'

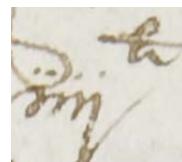


Fig. 2.59. 'Four pounds'

Apart from the use of superior letters for abbreviation, there are common words in the text in which the final letter(s) are above the line as a custom of the scribe, not strictly standing for an abbreviation in itself.



Fig. 2.60. 'þe'

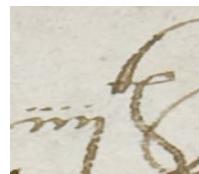


Fig. 2.61. 'fourth'

2.3.2.5. Manuscript corrections and scribal errors

Scribes had the common practice of revising their work when they had finished copying a text in order to detect any likely error they could have committed.⁶⁸ In this line, Hector distinguishes two different kinds of scribal errors: those that scribes have noticed and properly corrected and those that they have left for us to detect and analyse (1958: 49). Among those scribal errors that remained unnoticed during the stages of revision, H135 displays the following:

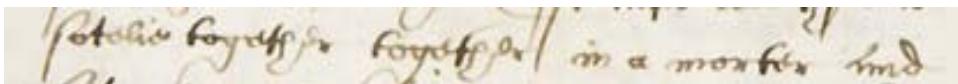


Fig. 2.62. Addition (f. 47v)

'sotelie together together in a morter and'

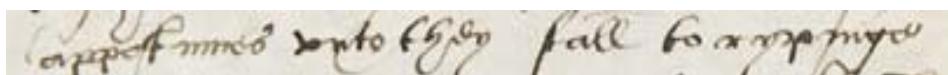


Fig. 2.63. Syllable addition within a word (f. 49v)

'apostumes vnto they fall to rypinge'

Besides these unnoticed errors, the scribe of H135 carried out manuscript corrections by deletion, alteration and insertion (Petti 1977: 29). These are explained below with the corresponding fragment in which they appear.

⁶⁸ Clemens and Graham argue that manuscripts would not only be corrected by the scribe who had copied it, but also by more senior members of the scriptorium, who had a greater range of textual familiarity and insight (2007: 35). Petti also notes that "by the 16th century the role of official manuscript corrector had virtually disappeared to be replaced by proof-reading which was carried out, albeit sometimes sporadically, in the printing press" (1977: 28).

2.3.2.5.1. Deletions

H135 presents three deletion techniques: cancellation,⁶⁹ expunction and erasure. Cancellation is the most frequent type of correction in the witness and consists in striking through the passage with ink with one or more straight lines (Figures 2.64 and 2.65). Figures 2.66 and 2.67, in turn, are instances in which the scribe uses cancellation in order to amend another scribal error consisting in the “mechanical repetition of a syllable, word or phrase through a lapse of memory or a trick of sight, an error of *dittography*” (Petti 1977: 30).⁷⁰



Fig. 2.64. Cancellation (f. 80r)
‘not’

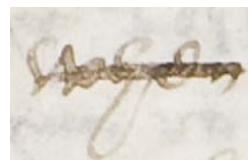


Fig. 2.65. Cancellation (f. 37r)
‘when’

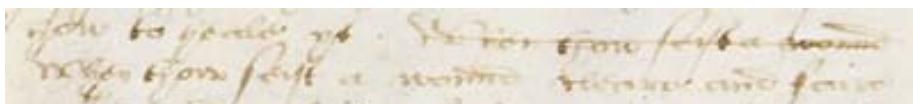


Fig. 2.66. Cancellation (f. 58r)
‘how to heale yt. ~~When thou seist a wound~~
when thou seist a wound cleare and faire’

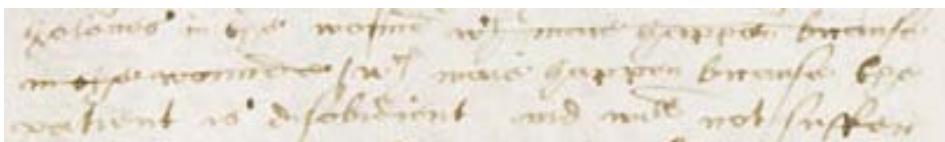


Fig. 2.67. Cancellation (f. 58v)

⁶⁹ This is the commonest method of deletion in Renaissance manuscripts, and usually takes the form of one or two strokes through the centre of the words or letters roughly parallel to the baseline (Petti 1977: 29).

⁷⁰ *Dittography* occurs when after “having correctly copied in full a passage in which the same word or phrase occurred twice, the scribe’s eye went back from the second to the first occurrence in his exemplar, causing him to copy the passage a second time” (Clemens and Graham 2007: 35).

'holones in the wound ~~which maie happen because~~
~~in the wound / which maie happen because the~~
patient is disobedient and will not suffer'

Expunction only appears once in the manuscript and is rendered by placing a dot under each letter to be left out (Petti 1977: 29; Clemens and Graham 2007: 35), as in Figure 2.68.

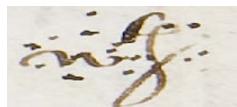


Fig. 2.68. Expunction (f. 45r)
'with'

Erasure consists of the removal, with a sharp knife, of the surface to be deleted and the posterior inclusion of the correct letter in the erased place (Hector 1958: 49; Clemens and Graham 2007: 35). Figures 2.69 and 2.70 are an example of erasure, in which the erased surface can be detected in view of the darkness left by the scraped ink.



Fig. 2.69. Erasure (f. 43r)
'blakishe'



Fig. 2.70. Erasure (f. 43r)
'of'

2.3.2.5.2. Alterations

Alterations are found in H135, consisting in the "modification of letters or words by *superimposing* or *superscribing* the correct letter on the deleted one" (Petti 1977: 29). In Figure 2.71, the scribe had formerly written a <g> instead of a <c>.



Fig 2.71. Alteration (f. 59r)
'Be Cut'

2.3.2.5.3. Insertions

Insertions could be performed directly on the line or above it (*interlineation*), depending on the length of the insertion, as they could be words, phrases and clauses. The caret (^) was used to mark the point in which the fragment was to be inserted (Petti 1977: 29). Insertions are by the same scribe who copied the text (Figures 2.72, 2.73, 2.74 and 2.75) or by a later hand (Figure 2.76 and 2.77).

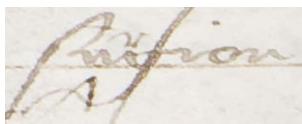


Fig. 2.72. Insertion (f.38r)
'sur/r\gion'



Fig. 2.73. Insertion (f. 62r)
'k/n\ead'e'



Fig. 2.74. Insertion (f. 72r)
'rose\ marie, lavender, rew, celidone, ysope, goldes'

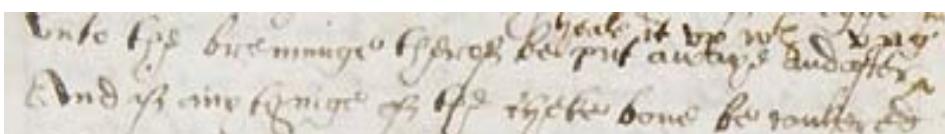


Fig. 2.75. Insertion (f.44v)
'vnto the brenninge therof be put awaye and after / heale it vp with vnguentum
viride\ And if any thinge of the cheke bone be cankered'

Figures 2.72 and 2.73 show the insertion of one missing letter in a word, where the scribe inserts it above the line, the caret marking its appropriate place. Figure 2.74 presents the insertion of a whole word above the line without the caret (most likely due to the obvious pairing of the words 'rose' and 'marie'). Finally, figure 2.75 accounts for the insertion of a whole clause above the line, the caret marking the exact point of the insertion.

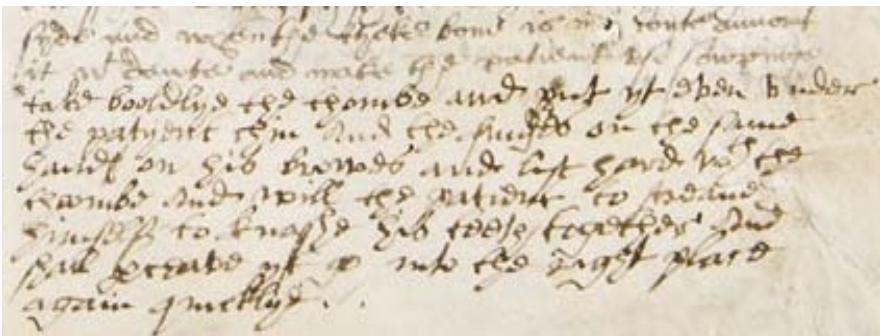


Fig. 2.76. Insertion (f. 44r)

(for a transcription, see edition in Chapter 3 below)

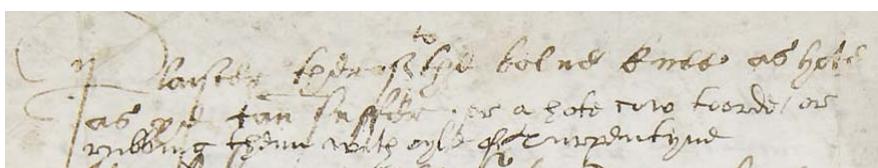


Fig. 2.77. Insertion (f. 93v)

(for a transcription, see edition in Chapter 3 below)

Figures 2.76 and 2.77 are instances of insertions by a later hand, as a change in the handwriting is easily noticed. Figure 2.76 shows a whole paragraph inserted at the bottom margin of f. 44r, incorporating extra information to the topic under discussion. The source of the added information is unknown. Figure 28, in turn, shows a smaller insertion, barely a clause, which is providing two alternative remedies to the one that has been proposed. The source of this insertion is MS Hunter 251 (U.4.9), which appears referred as ‘Dr. Mead’s MS’ in later insertions in the volume (Young and Aitken 1908: 201–2). These two hands carry out a great number of insertions and corrections throughout the text, the marginalia and the indexes, as has already been commented on in Section 2.3.2.1.

2.3.2.6. The punctuation system in H135

Punctuation may be defined as “the practice, art, method, or system of inserting points or ‘stops’ to aid the sense, in writing or printing” (*OED* s.v. *punctuation*, n. 3.a). However, there has been some controversy as to the functions of these

‘stops’. The punctuation of mediaeval manuscripts has been paid little or no attention in the literature until recent times, as punctuation has been traditionally considered to be arbitrary and unsystematic (Salmon 1988: 285; Rodríguez-Álvarez 1999: 27–30; Alonso-Almeida 2002a: 207–210; Calle-Martín 2004: 407–422).

It would be neither possible, nor particularly rewarding, to attempt a detailed analysis of the punctuation of individual writers in this period, since so much depended on education, on the writer’s purpose and general predilections (Salmon 1999: 31).

In the sixteenth century, a number of punctuation marks are introduced (i.e. the semicolon) and, more importantly, “punctuation ceases to be regarded primarily as a guide to the spoken language and becomes an aid to clarity in the printed work” (Salmon 1999: 40).⁷¹ The topic has recently attracted the attention of scholars, who have proposed several categorisations of punctuation, i.e. rhythmical versus logical, rhetorical versus grammatical, or elocutionary versus structural (Lucas 1971: 2–3).

Approaches to individual texts demonstrate an evolution from the rhetorical to the grammatical in the history of English.⁷² In Old English, for instance, Calle-Martín and Miranda-García found a rhetorical use of punctuation

⁷¹ Even though the conventions of punctuation started to standardise due to the circulation of printed texts, Salmon (1999: 40) argues that “the period is one of experiment and uncertainty in the use of some of these punctuation marks, which, to some extent, depends on the preference of the individual compositor”, hence the need of individual approaches to the issue. In this vein, Kennedy-Skipton states that the punctuation system “fully developed by the end of the 16th century, and in the course of the early Modern English period scribes employed the punctuation symbols that we use today, albeit with noticeable differences” (Dawson and Kennedy-Skipton 1968: 18; see also Petti 1977: 25).

⁷² According to Lucas, “the historical development of the use of punctuation in English seems to be a gradual process of re-drawing the boundary-line in favour of structural (and expository) at the expense of elocutionary territory” (1971: 4).



in the *Apollonius of Tyre* (2005a; see also Mitchell 1980 for the modernisation of OE punctuation). In Middle English, Arakelian's analysis of the punctuation system in a biographical treatise demonstrates that the grammatical predominates (1975). In this same vein, Rodríguez-Álvarez (1999) and Calle-Martín and Miranda-García (2005b) accounted for the structural functions of punctuation in sixteenth-century vernacular deeds and a Middle English arithmetical treatise, respectively. Finally, studies in early Modern English punctuation by Alonso-Almeida and Ortega-Barrera (2014) on sixteenth-century medical recipes and by Calle-Martín and Miranda-García (2007) on sixteenth-century legal texts corroborate the diachronic transition of English punctuation, from rhetorical to structural purposes.

It must be noted that all the studies on early Modern English material have approached the topic of punctuation from a qualitative point of view. The quantitative aspect, however, has been disregarded even though it could certainly contribute to a better understanding of a scribe's preference in the same text. Therefore, the present analysis of punctuation is based both on qualitative and quantitative grounds. The fact that the object of study in the present dissertation is divided into a surgical treatise and a collection of recipes allows for the comparison of the scribal preferences in two different text types.

38,830 words and punctuation marks were transcribed, normalised, POS-tagged and, by means of *AntConc 3.4.4* (Anthony 2014), all the concordances of the punctuation marks in H135 were subsequently retrieved. These concordances were then exported to an Excel spreadsheet and classified according to the punctuation mark (period, comma, etc.). Finally, the instances of each punctuation symbol were analysed in the light of their function in the text.



2.3.2.6.1. The inventory of punctuation symbols and their functions in H135

The following punctuation symbols were found in H135: the period (.), the comma (,), the perioslash (./), the virgule (/), the colon (:), the semicolon (;) and the parenthesis ((–)).

2.3.2.6.1.1. The period

According to Parkes, the punctus became the most common mark of punctuation after the twelfth century, “used to indicate all kinds of pauses, to introduce quotations, and to separate” (1992: 42, 1978). Towards the fifteenth century, however, the functions of the period narrowed down to barely the flagging of sentence boundaries, as the full stop nowadays does (Petti 1977: 25). In H135, there are 113 instances of the period in the surgical treatise and 340 in the medical recipes. At sentential level, the period is found to have the following functions:

a) *After titles:*

- (1) To cleare Eies which ar not sore. Take rew, vervine, rede roses celidonie still them and this water is goodd./ For the fever quotidian, tertian or quartane Take monfeare camamile bursa pastoris rede nettell (f. 76r).

a) *To mark off the end of a section:*

- (2) And whethe apposteme is done awaie and the woun chaungid again to his first kynde, then heale it lyke as other woundes. Off restoringe of good fleshe in a wounde The causes whre the fleshe is not sonne restorid and genderid againe in a wound are thre (f. 58v).
- (3) And when thou wilt gilt any mettell heet it a litill in the fier and ley thervpone thie water so ioned with a fether and let it drye. For the sawce flewin Take dragance when he is moost brimmest roote and all and drie it in the soone (f. 113v).



b) *To mark off the beginning of a new sense unit:*

- (4) then ley therupon lybet wet in the white of an egge and oyle of Roses together and when the ache and priking is debatid heale it vp with vnguentum viride and of the canker in fleshlie places I shall speake hereafter. Scropules do springe in the neck and in the throate and in the liskes and glandules also and for to knowe glandules and Scrophule (ff. 50v–51r).
- (5) for the megryne or forehede wark. Take the white of dove doung musterd sede and pepper. bray them all together and in braying temper yt with good stronge viniger vntill it be plaister like (f. 81v).

c) *To introduce sequential markers:*

- (6) Throughe Slyding or falling it with a stroke the foote is somewhiles brought furth of ioint and in this manner thow ought to bring it again. First thow shalt make the patient to sit vpon his ars and cause a man to hould the same legg wherof the foote is out of ioint (f. 70v).
- (7) Take a pound of new yalew wax or as muche as you will and let it melt on the fier in a cleane pan And then poore yt into another pan or dishe wherin must be malmesey muscadell or other whyte wyne that is vere good. after take it owt of the wine, and melt it again (f. 118v).

e) *To introduce coordinate sentences:*

- (8) Therfore we may fret awaie the cankers with corrosyves and burninges and cutting. And note that sometime the lypes of the Canker on thes places spredithe abrode and somewhiles are strait together (f. 71r).
- (9) and throw a litill salt theron then take furthe thy honie while it is warme and vpon that trencher maike therof four rolls as long but not so big as thy little finger. And let the patient or for him thrust one of the rolles over the head in his fundament (f. 78r).



f) To introduce adverbial clauses:

- (10) presse yt downe fast thowhe which pressinge ther shall comme oute oyle which kepe to thiſe yſe. For it is wondeurfull preciouſe for all manner of morfewſ (f. 45v).
- (11) And within iiiijor daies þe hole of the wound ſhall ſeme larger and the matter which did hing furthe ſhall be ſowpble and eaiſie to be put vp. When it is vp trins yt ſuerlie with a cod. And giue thiſ drynke following (f. 77r).

g) To introduce relative clauses:

- (12) I thinke to ſpeakē of ſtein apostemes which grow vnder the armehooleſ and in the ſhare as it were pefilenc ſores or botheſ and those are yncurable. which ſucertith and akithe and burnithh ſo muche that the patient may not ſlepe wherthroughē the patient hath a ſharpe fever (f. 49v).
- (13) then for want of breathe drawing he ſtartithe furthe of his ſlepe like one affrayed and pantith for want of winde lyke a man whose mynde were almoſt gone. which in Continewance of few wekes is nedie deathe for want of ſlepe if the patient gan get no remedye And I haue knownen one dye (f. 88r).

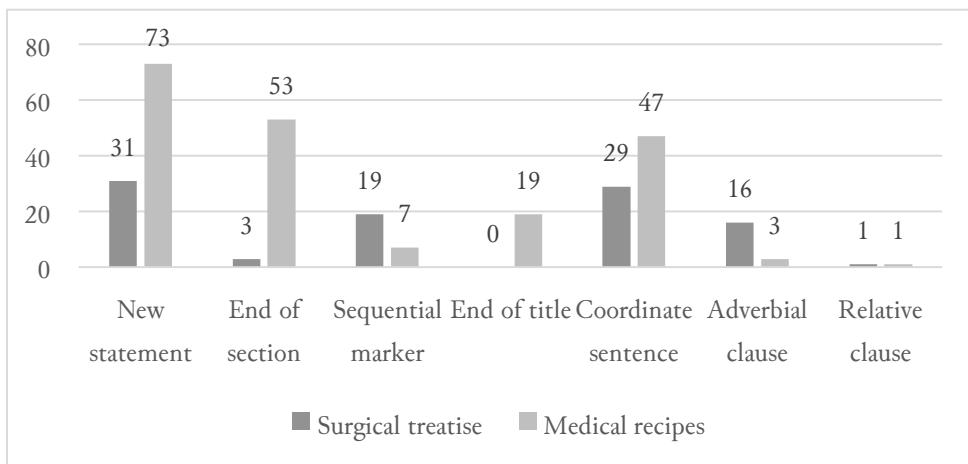


Fig. 2.78. Functions of the period at sentential level in H135

As observed in Figure 2.78,⁷³ the period occurs with different distributions in the surgical treatise and the collection of recipes. On the one hand, the period is more widely used in the medical recipes for the introduction of new statements, the marking off of sections and titles and the introduction of coordinate sentences. In the surgical treatise, on the other hand, it is more frequent for the introduction of sequential markers and adverbial clauses.

In addition to these uses, the period is also used at phrase level with three different functions:

a) To list the ingredients in a series:

- (14) Take tartur and powder of musterd sede of either iiij penyweight.
powder of pepper, allome calcionid od eche ij penye weight, borace
vijij penyweight powder (f. 45r).
- (15) Take half a pound of Rosen. half a pound of parrosen. virgin v
pennywaight. wax and frankensence of ether a quarter of a pound. ij
drammes of Comfere an ounce of mastick of hart tallow a quarter of
a pound maike powder of them (f. 106r).

b) To introduce units of measure:

- (16) Then put vpon the said water 3. pounds. of your said grownd malt
letting it stand soo an howre or moore without styring And
immediatlye vpone the emptijng of your furnes haue redye 30 gallons
moore which you must seethe as the fyrist Then pull vp your tapp (f.
120v).

⁷³ Due to the equal length of the texts under study (19,348 and 19,482 words in the surgical text and the collection of recipes, respectively), the findings in this section are provided in raw data.



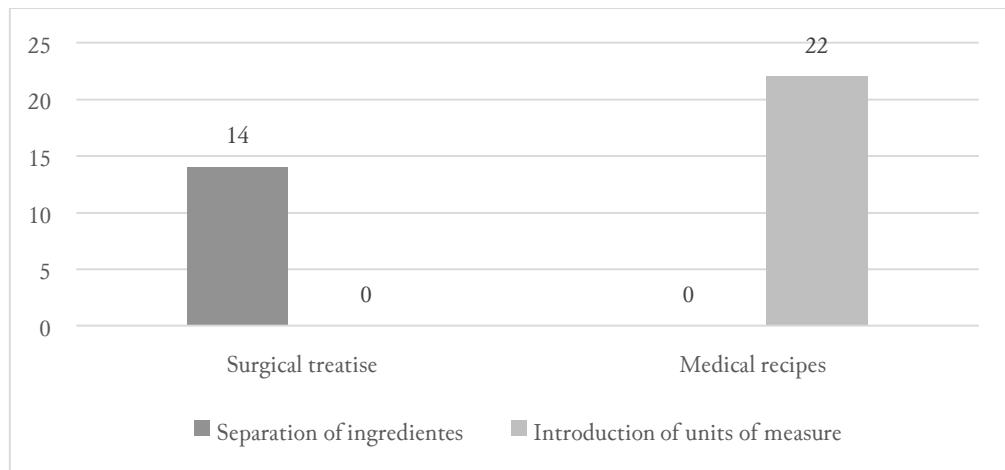


Fig. 2.79. Functions of the period at clausal level in H135

Figure 2.79 shows the frequency of the different functions of the period at clausal level, where it is easily observed that, in the medical recipes, it is used for the introduction of units of measure. In the surgical treatise, in turn, the period operates marginally for the separation of ingredients.

Finally, at phrasal level the period is used after numerals (17) as well as to circumscribe them (18) (7 and 61 times in the surgical treatise and the collection of recipes, respectively):

- (17) and menge them well together vpon the fier and put thereto iij. of wheat flowre and ij ounces of powder of lynesede and ij ounces powder of plemgrece and put thereto white wyne and sathe alle together (f. 35v).
- (18) Taik an ounce of lapis calaminaris and an vnce of Totie Allexandrin brey theim. ix. tymes and euerie tyme quenche them in white wyne or rose water then gland theim small with capons greace and aannoynth thy eie or put of the powder in rose water and drop into thyn eie with a sether (f. 96r).

2.3.2.6.1.2. The comma

The comma is the shortest pause (Tannenbaum 1930: 140; Petti 1977: 26; Quirk et al. 1985: 1615), introduced in English documents towards the sixteenth century replacing the functions of the virgule (Calle-Martín and Miranda-García 2007). In H135, however, these two symbols coexist, sharing particular functions. Thus, the comma is almost twice as many times as frequent in the surgical treatise as in the collection of recipes (404 over 232 instances, respectively). At sentential level, it performs the following functions:

a) After titles:

- (19) For the Stone, Taike Allexander sede gromell sede coliander sed percelie sede saxifrage fyne tyme ana. put therin a race of ginger maide into fyne powder and mingle them well together and drink therof with the malmesey or staile aile or bloodwarm (f. 97r).

b) To mark off the beginning of a new statement:

- (20) and let it stand vpon the fier to all be meltid then let it kele and put it in a glas to kepe, This water is callid water of corall of the noblenes of yt as also for it hath a colour like read Corall (f. 69r).
- (21) For the scabe in the syde Taike viniger, reddes ynyons / rose leves or leves of a rose cake, boyle them well together lay them hote to thy bare syde after manner of a plaister do so dyverse tymes. (f. 86v).

c) To introduce sequential markers:

- (22) Take the roots of lyllye and the leaves of violet and put them in water the space of one howre, then strayne them and cast the water away and put them in a morter and cast therto a litle butter and yolkes of Egges (f. 54r).
- (23) Frie it in a pan, strein yt through a clothe and anoint the sore with a fedder, or take shepe tryddles and blend them well with creame of



mylke, then strein yt and therwith with a fether annoince the burnid or scaldid place ij or iij in a daie./ (f. 78v).

d) To introduce coordinate sentences:

- (24) Then take lynet wett in the white of an egge and laye yt into the hole, and reneve yt not to the second daye And if ther leave any of the scrophule in the hole, then strew theron pulvis affodilum and whet it is clene then heale it vp (f. 51v).
- (25) Frie it in a pan, strein yt through a clothe and anoint the sore with a fedder, or take shepe tryddles and blend them well with creame of mylke, then strein yt and therwith with a fether annoince the burnid or scaldid place ij or iij in a daie./ (f. 78v).

e) To introduce adverbial clauses:

- (26) put therto turbentyne alwaies stering yt well and kepe yt to thy vse, For it is precious and wounderfull goode to all manner of Roting of wounds (f. 57v).
- (27) Put this water into a glasse and kepe it for yt is a verie good water to washe therwith any sore and namelie a sore legg and will heale yt without any other salve, if the sore be not verie olde, Thow shalte woorke with it in this manner (f. 75v).

f) To introduce relative clauses:

- (28) soome vessell of glasse or earthe leded within of the whiche doung will coome a watter withoutt savour or evell smell, which wilbe vere good to take of all maner of spotts or blemishe in the face (f. 115v).

g) To explain what has just been said:

- (29) Thowe shalt knowe when dura matter is hurte by thes tokens, Akinge in the heade, readnes in visage, swellinge in the eine And rasinge blacknes of the towngre (f. 34r).



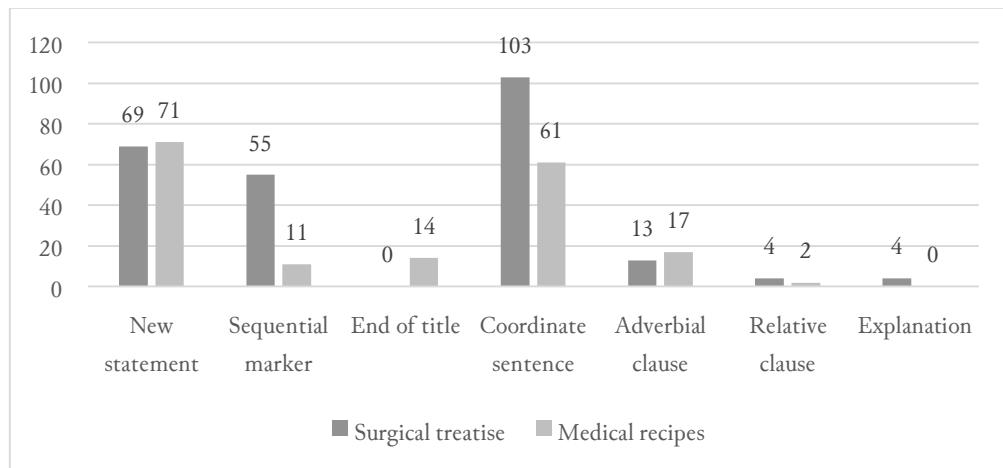


Fig. 2.80. Functions of the comma at sentential level in H135

As shown in Figure 2.80, the surgical treatise and the collection of recipes show different distributions of the comma depending on its function. Thus, in the surgical treatise, the comma occurs more widely for the introduction of sequential markers and coordinate sentences, as well as explanations. In the medical recipes, however, the comma predominates after titles. Finally, the use of the comma is similar in both text types for the introduction of new statements, adverbial and relative clauses.

The comma also works at clausal level, where it is used to list different ingredients in a series (156 and 56 instances in the surgical treatise and the collection of recipes, respectively):

- (30) To maike Antioche royall. Take spyknell centorie, burnet, origane, herbe robert, scabions ribwoort, brome, wena, vervain, egremone matfelon, bugle, wylde sage, mugwoort, puliole mountain, brownwoort, betonie, malows playntain, pulial royall, pegle, fumiterre of monde, dayse, calaminte, prymrose, mellefoyle, herbe John, strawberre (f. 72r).
- (31) if yt be not small ynough delay it with barlon water or with pure water well sodden boyle your meat with cold herbes as lettice,

Spinage, burrage, endyve, Giacorie and violet leaves great Rasinge,
prownes and purselein (ff. 109r–109v).

2.3.2.6.1.3. The perioslash

The perioslash, also referred to as the punctus plus the virgule (de la Cruz-Cabanillas 2014: 149–150), has been elsewhere found to share the macro-textual functions of the period. It displays a specialised use insofar as it only features one grammatical function in the surgical treatise and the medical recipes, i.e. to signal the end of a section (33 and 67 instances, respectively).

- (32) and then fasten therupon a paire of pinsonnes and draw it out and
after heale it as is said of other wounds. / A wounde with a Sworde
happenithe to be many times in the thighe with hurting of the bone
or not Thow shalt heale it in the same manner as is said before of
woundinge of the arme (f. 67v).

2.3.2.6.1.4. The virgule

The virgule is found in English texts from the fourteenth century onwards, spreading substantially throughout the fifteenth century. It was originally used for signalling short pauses although it could also serve for ending a whole sentence or clause (Hector 1958: 47; Esteban-Segura 2010: 100). The Renaissance virgule consists of “an oblique stroke of varying length, thickness and ornamentation” with its top and bottom extremes slightly curved rightwards and leftwards, respectively (Petti 1977, 26). Used for denoting short pauses, this punctuation symbol could be in fact a substitute for nearly any punctuation mark, showing different functions both at clause and phrasal level (Tannenbaum 1930: 143). In H135, it occurs 63 and 55 times in the surgical treatise and the collection of recipes, respectively. It shares some of the functions of the comma, albeit to a lesser extent. Thus, it has been employed at sentential level with the following purposes:



a) To signal the end of a recipe:

- (33) beat them well together mixe therwith wheat flour and honye vnto it
be plaister like and if thow cannot get burtre leavs It will do well with
the other thinge or with the grene bark of burtre / (f. 110v).

b) To mark off the beginning of a new statement:

- (34) And when it is coulde powr furthe the water that thow fyndes therin
and after kepe yt to thy vse/ This ointment is callyd popilion because
yt hath his moste vertew of the burions of populer (f. 53v).
- (35) Take a handfull of beans / proche them on a tyle stone pyke of the
hulles braie them in a morter to fyne powder , Sethe that popuder in
a pynte of rede wyne and synamond (f. 77v).

c) To introduce sequential markers:

- (36) Thes embrocacions we vse for diuersity of tymes and we dight the
patient therwith vnto ther comme mater therfro, then lay vnto the
wounde lynnet and nothing els vnto the wound be well dried / After
that put thereto vnguentum fustum vnto it be hole whiche is thus
made (f. 36r).
- (37) And then poore yt into another pan or dishe wherin must be
malmesey muscadell or other whyte wyne that is vere good. after take
it owt of the wine, and melt it again / then power it again vpon the
said wine doing so vij tymes (f. 118v).

d) To signal the end of a recipe:

- (38) beat them well together mixe therwith wheat flour and honye vnto it
be plaister like and if thow cannot get burtre leavs It will do well with
the other thinge or with the grene bark of burtre / (f. 110v).



e) To introduce coordinate sentences:

- (39) After streine yt and put therto honye to make yt delycate / And in the space of xv daies *with* vsinge of this drinke the child shalbe hole, And the Scrophule is soft in touching And the Glandule is harde./ (f. 51v).
- (40) Then heale it withe a plaister made of wheat flowr honie, and yolk of an egg / And this plaster will keep it open a good space and then will it heale / the woormes ar as bigg as good pynus and vere sharp (f. 100r).

f) To introduce adverbial clauses:

- (41) For phisick saithe that it is possible a man to lyve without a milt then better he maie live with part of a mylt / When the the mylt is in sew vp the wound saving a hole in the louer-moste parte of the wounde wher thou shall put in a tent (f. 62v).

g) to explain what has just been said:

- (42) And is so callid as it semithe bicause (truthe is) it is alwaies full of dead fleshe which mormall maie be causid in two manners / Of a wound or bresure noughtelic healid and so drawing it to a festure and frome a fasturing to a mormall (f. 69r).



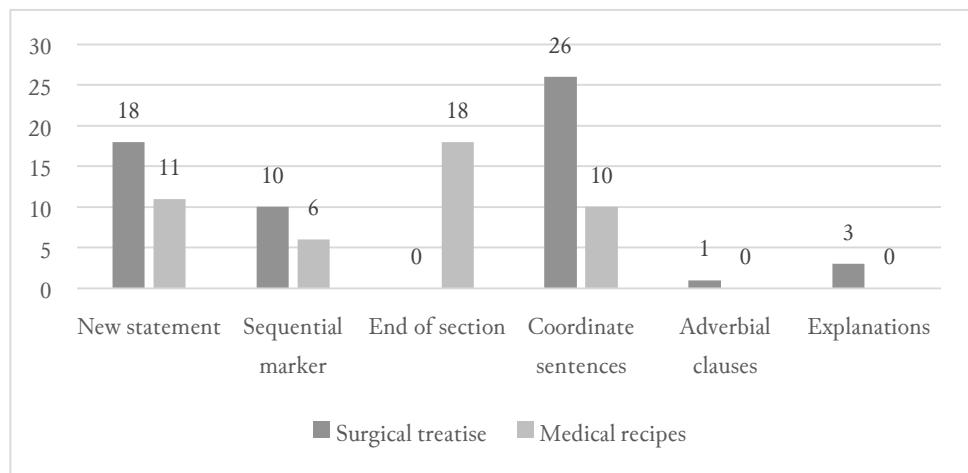


Fig. 2.81. Functions of the virgule at sentential level in H135

The data in Figure 2.81 show that the virgule is much more frequently used in the surgical treatise for the introduction of new statements, sequential markers and coordinate sentences. In the medical recipes, in turn, the virgule is used 18 times to mark the end of a recipe.

At clausal level, the virgule is employed to list the ingredients in both text types (5 and 14 times in the surgical treatise and the collection of recipes, respectively):

- (41) Take powder of drie rootes langdebeffe iiij vnces / of powder of the roote of Clate v ounces / of powder of the roote of Celodyne (id est celidony) j ounce / powder of ginger j ounce / of quicksilver ij ounces / waxe ijj ounces in somer and ij in winter of Rosyn as much as sufficithe (f. 50v).

- (42) For a Vehement fever or ague take feir whey clarified and barley well stepid and huskid / buglos / Sicurie / Endive and licores (f. 76v).

2.3.2.6.1.5. The colon

The colon's function is to inform that "what follows the colon is an explication of what precedes it or a fulfilment of the expectation raised" (Quirk et al. 1985: 1620).⁷⁴ According to Calle-Martín and Miranda-García (2007: 372–373), there is no consensus in the literature as to the use of the Elizabethan colon: while Tannenbaum argues that the colon was used for commas (1930: 142), question marks, exclamation marks and periods, Petti states that it was used in combination with the virgule to mark off the end of a paragraph, only acquiring its modern use at the end of the period (1977: 27).

The colon occurs marginally in both text types, where it only operates at sentential level. In the surgical treatise, on the one hand, it occurs just once, for the introduction of an adverbial clause (43). In the medical recipes, on the other, the colon is used 9 times to mark off the end of a recipe (44) and 7 times to link coordinate sentences (45).

- (43) *yt cannot be perceyvyd by touchinge with thy finger: When the breaking is openly perceyved then cut the fleshe aboue croswise and do as is abouesaide of the straite wounde, and yf thowe be dowtfull whether it be broken or not cut not the fleshe by the span of v or vj dayes (f. 36v).*
- (44) *which haue bene gryethye venemid bothe in the face bodye and also on the head. probat: Againste the harte burne Drink a sponefull of vinager for that is a very good Remedye and well proved (f. 104r).*
- (45) *2 or 3 dropps of the Iuce of lemonndes or Cytrons: And let there be of all thes waters so proportioned together. half a glasfull or soome what moore into the which you shall put a peece of Sugerr (f. 116r).*

⁷⁴ It may also be used for the introduction of a whole quoted sentence.



2.3.2.6.1.6. The semicolon

The semi-colon entered the punctuation system at the end of the fifteenth century with “a function between the other two marks”, when just a comma is not sufficient and the colon slows up the utterance more than necessary (Parkes 1992: 49, 1978; see also Calle-Martín and Miranda-García 2007: 371).⁷⁵ In addition, the semicolon is a coordinating mark of punctuation, i.e. asyndetic coordination.

The colon appears once in the surgical treatise to link coordinate clauses (46). In the medical treatise, in turn, it is used once for the introduction of a new statement (47) and twice to link coordinate clauses (48).

- (46) And the hand that is owt of iointe, with thy other hand and draw it a litle and lightlie yt shall go into the ioint againe; and an other syde put a spelt, v or vi daies together and after annoit it with a litle dewte (f. 60v).
- (47) you may maik powder therof and drink that powder when ye go to bed with water aisle or wyne; also It is good to drink the water or ale wherin akorns are well sodden./ (f. 111r).
- (48) Done thus put it into an ould cupp for thy vse; and whan thou haist nede of yt taik a litle of it in a Saucer and warme it on the Coales and taik a fether and annoit the patient therwith and bynd a Clothe about the sore (f. 103v).

2.3.2.6.1.7. The parenthesis

The parenthesis is a mark of punctuation that can be used with different purposes: to introduce exclamations, interjections, vocatives, asides or quotations (Tannenbaum 1930: 144–145); reflecting “the needs of those who were

⁷⁵ Quirk et al. state that the semicolon is the “coordinating mark of punctuation, corresponding most nearly in value to the linguistic coordinating conjunction ‘and’” (1985: 1622).

accustomed to silent reading” (Parkes 1992: 49, 1978); and to introduce parenthetical material, to emphasize, or simply to indicate the reader (Petti 1977: 27).

In H135, the parenthesis has been used in the surgical treatise and the collection of recipes to introduce an explanation to the reader (one and eight times, respectively).

- (49) Malum mortuum is callyd in frenche and also in englishe a Mormall which
is as muche as to saie a dead sore, And is so callid as it semithe bicause
(truthe is) it is alwaies full of dead fleshe which mormall maie be causid in
two manners /
- (99) Therfore I devised this remedie I did taik a burtre or eldertre stick
(for of all ther things or woode which I provid that is the best) as bigg
as my thombe almoste thre inches longe, the core being thursten
furthe (f. 89r).

2.3.2.6.2. Analysis

The present section compares the different practice of punctuation in H135 in order to ascertain if text type plays a role in the use of punctuation. For the purpose, Table 2.1 shows the distribution of the punctuation symbols in the surgical text. As observed, punctuation is mainly structural, most symbols operating at sentential level for the introduction of new statements (118), sequential markers (84), coordinate sentences (159), adverbial and relative clauses (31 and 5, respectively). Punctuation, in turn, is also used at clausal level, albeit to a lesser extent, for the separation of ingredients (159) and the introduction of additional information for the reader (8). At phrase level it is exclusively used to circumscribe numerals (7).

Regarding the distribution of the different symbols, the comma is the most frequent (404), followed by the period (120), the virgule (63) and the



perioslash (33). The colon, the semicolon and the parenthesis, however, occur marginally with just one instance each.

	.	/	,	/	:	;	(,)	Total
<i>Introduce new statements</i>	31	0	69	18	0	0	0	118
<i>Sequential markers</i>	19	0	55	10	0	0	0	84
<i>End of section/recipe/paragraph</i>	3	33	0	0	0	0	0	36
<i>End of title</i>	0	0	0	0	0	0	0	0
<i>Introduce coordinate sentences</i>	29	0	103	26	0	1	0	159
<i>Introduce adverbial clauses</i>	16	0	13	1	1	0	0	31
<i>Introduce relative clauses</i>	1	0	4	0	0	0	0	5
<i>Separate ingredients</i>	14	0	156	5	0	0	0	175
<i>Circumscribe numerals</i>	7	0	0	0	0	0	0	7
<i>Introduce units of measure</i>	0	0	0	0	0	0	0	0
<i>Additional explanation for the reader</i>	0	0	4	3	0	0	1	8
<i>Total</i>	120	33	404	63	1	1	1	623

Table 2.1. Punctuation system in the surgical treatise

A different distribution is obtained in the recipes. As observed in Table 2.2, punctuation is mainly structural, the majority of the symbols used at sentential level for the introduction of new statements (155), sequential markers (24), coordinate sentences (127), adverbial and relative clauses (20 and 3, respectively), and the marking off of the end of a section (147) or title (33). At clausal level, punctuation is used to separate ingredients (70) and to introduce additional information for the reader (8). Finally, punctuation is used at phrase level to circumscribe numerals (61) and to introduce units of measure (22).

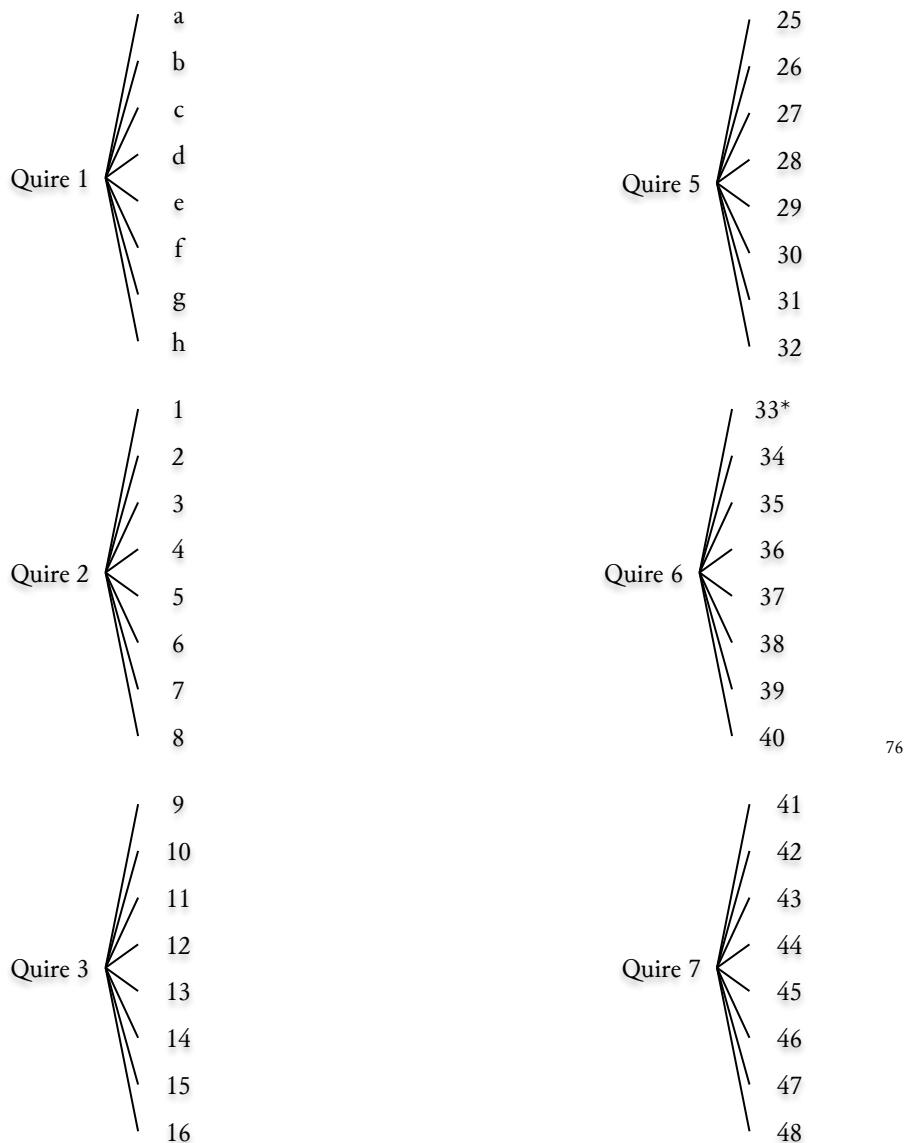
The most frequent symbol is the period (286), followed by the comma (232), the perioslash (67), the virgule (59) and the colon (16); the semicolon and the parenthesis, however, are erratic in the data (2 and 8, respectively).

	.	./	,	/	:	;	(,)	Total
<i>Introduce new statements</i>	73	0	71	11	0	0	0	155
<i>Sequential markers</i>	7	0	11	6	0	0	0	24
<i>End of section/recipe/paragraph</i>	53	67	0	18	9	0	0	147
<i>End of title</i>	19	0	14	0	0	0	0	33
<i>Introduce coordinate sentences</i>	47	0	61	10	7	2	0	127
<i>Introduce adverbial clauses</i>	3	0	17	0	0	0	0	20
<i>Introduce relative clauses</i>	1	0	2	0	0	0	0	3
<i>Separate ingredients</i>	0	0	56	14	0	0	0	70
<i>Circumscribe numerals</i>	61	0	0	0	0	0	0	61
<i>Introduce units of measure</i>	22	0	0	0	0	0	0	22
<i>Additional explanation for the reader</i>	0	0	0	0	0	0	8	8
<i>Total</i>	286	67	232	59	16	2	8	670

Table 2.2. Punctuation system in the medical recipes

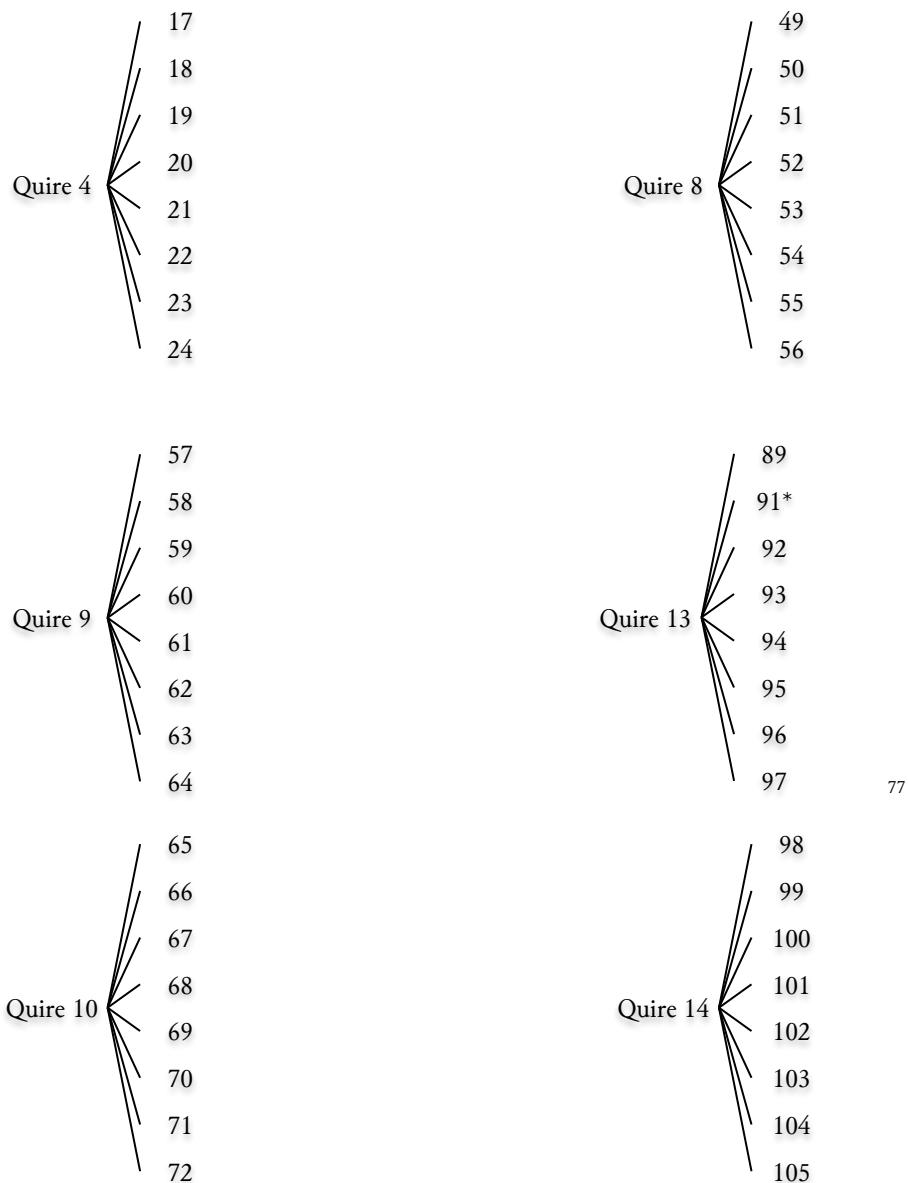


2.4. Appendix



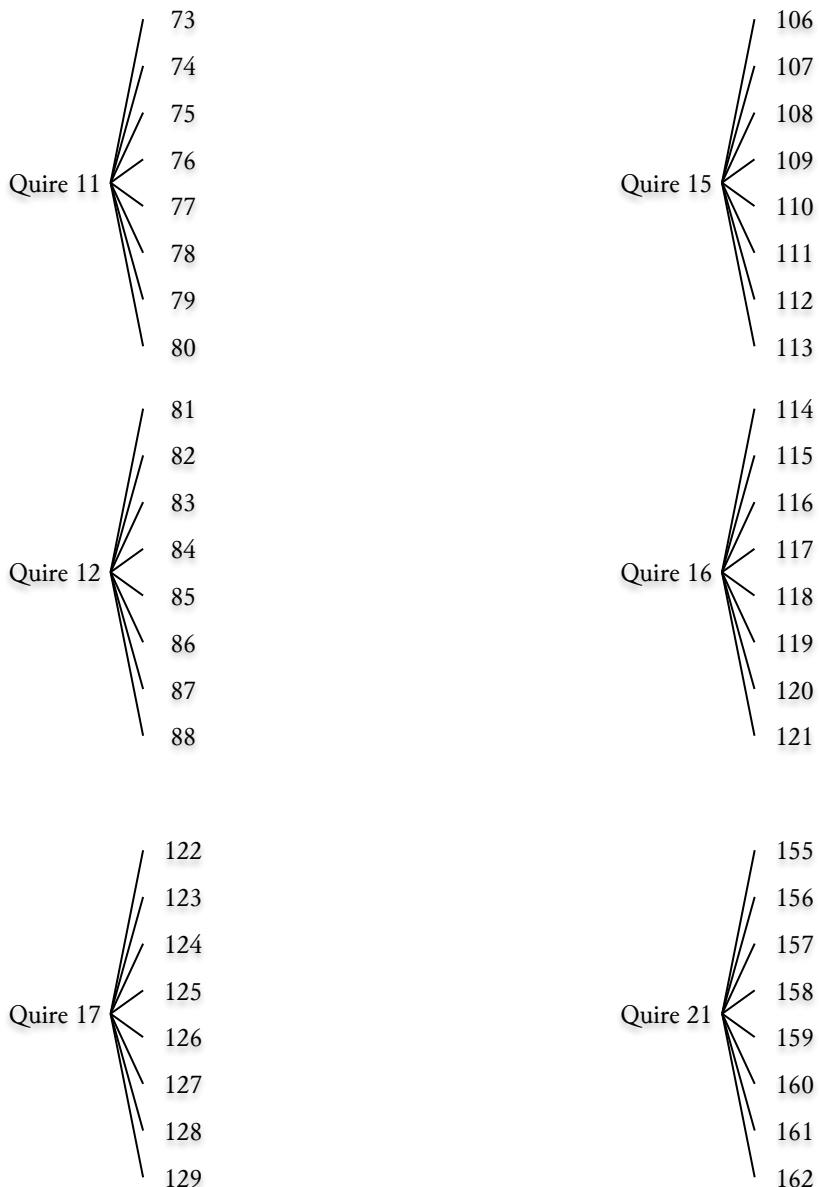
⁷⁶* 33. Missing, therefore 40 is a single sheet as should be joined to 33. There is some evidence that the page has been cut.

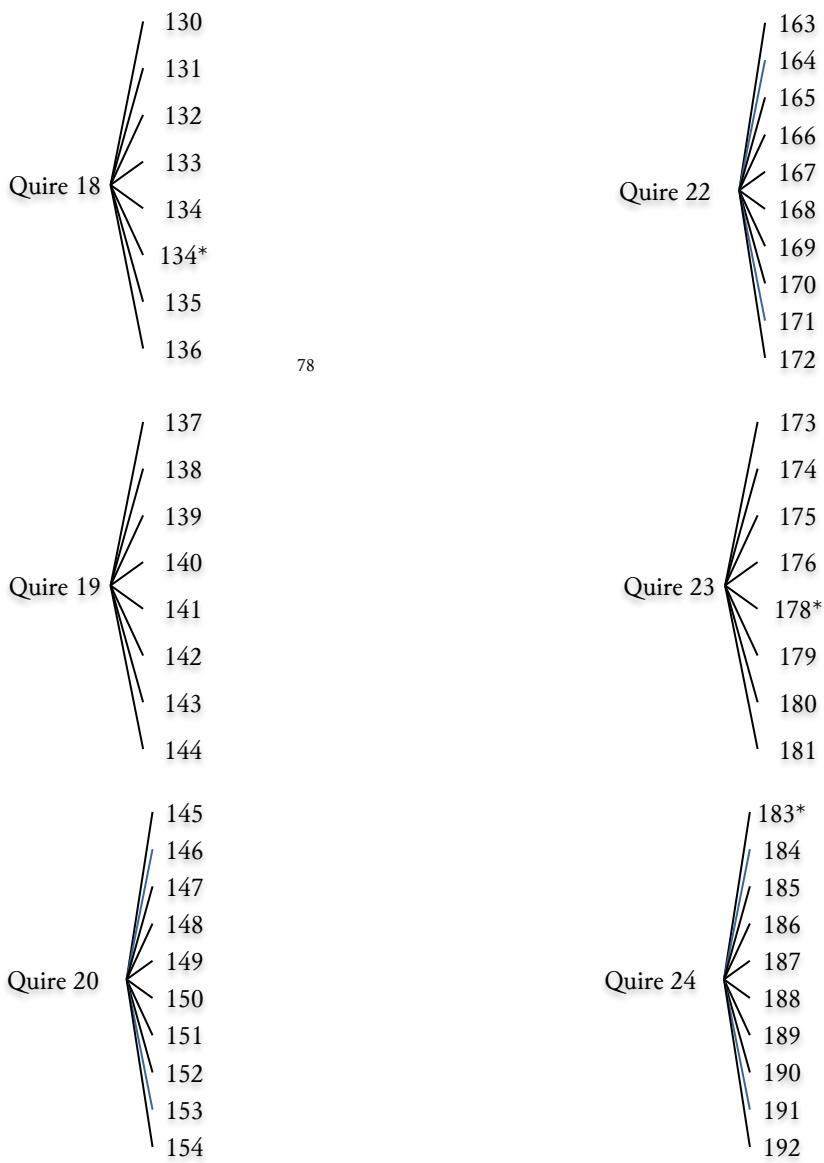




⁷⁷* 91. Misnumbered, not missing.





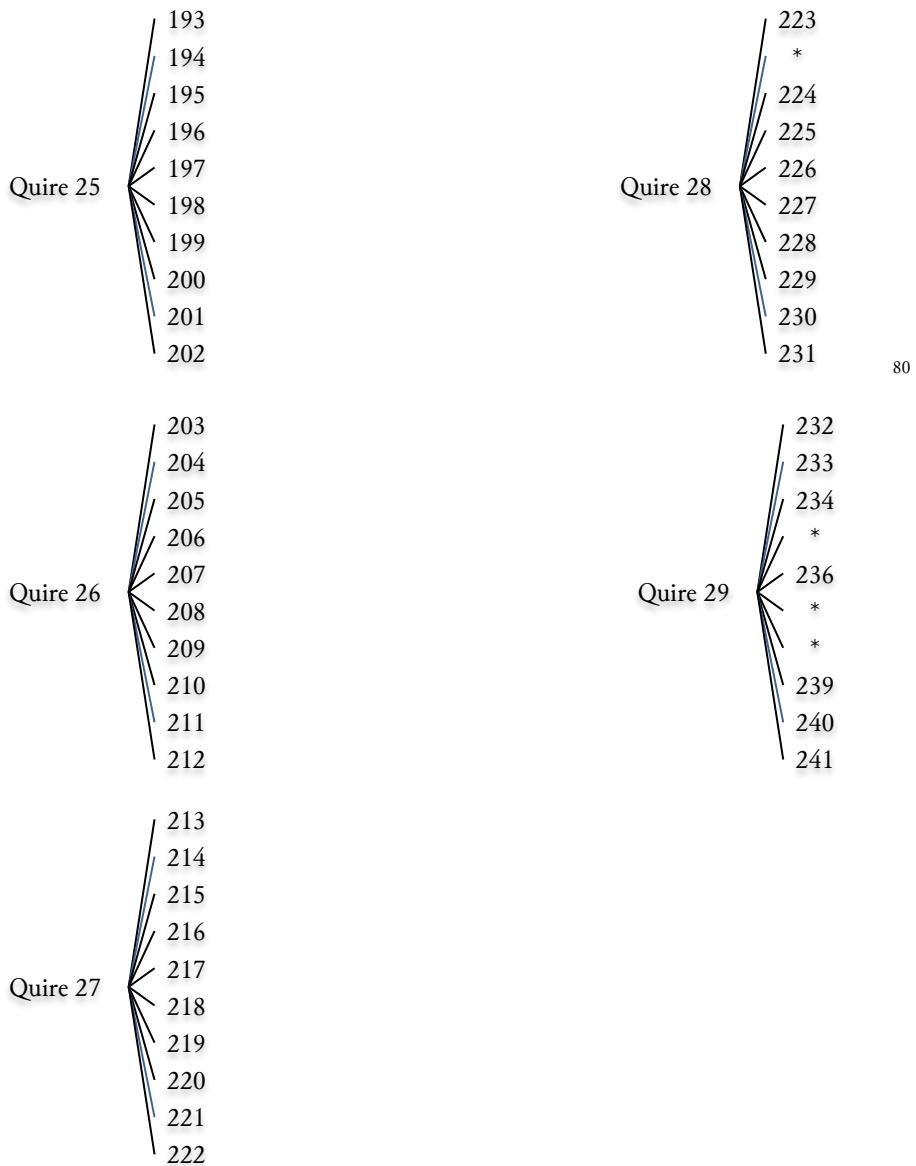


78

79

⁷⁸* 134. Misnumbered, not missing.

⁷⁹* 182. Page number jump.



⁸⁰ * are not numbered.





CHAPTER 3

THE EDITION OF HISTORICAL MANUSCRIPTS

Philology: 1. Love of learning and literature; the study of literature, in a wide sense, including grammar, literary criticism and interpretation, the relation of literature and written records to history, etc.; literary or classical scholarship; polite learning. 2. † Rendering Greek *φιλολογία* love of talk, speech, or argument (as opposed to *φιλοσοφία* love of wisdom, philosophy). 3. The study of the structure and development of language, the science of language and linguistics. Now usually restricted to the study of the development of specific languages or language families. Research into phonological and morphological history based on written documents (*OED* s.v. *philology*, n. 1-3).

The above definition of philology from the *OED* implies that it is a discipline in which the study of texts, of any genre, is paramount. Thus, texts are used for different purposes that range from linguistic analysis to literary criticism, among others. In this vein, Gumbrecht (2003: 2–4) has identified four major implications in the definition of philology as the study of texts: 1) philological practice has an affinity with those historical periods that see themselves as following a greater cultural moment (the European Renaissance or the nineteenth-century romanticism, among others); 2) it identifies and restores texts from each cultural past in question, including the identification of texts that have come to us in fragments; the documentation of texts present in several not completely identical versions; and the commentary in order to bridge the historical contextual gap between the original and the actual readers of the text; 3) it maintains a distance between hermeneutics and interpretation as textual practice, having sobriety, objectivity and rationality as its main values; and 4) it plays an important role in



those disciplines that deal with the most chronologically and culturally remote segments of the past, such as Assyriology or Egyptology, among others.

3.1. Textual scholarship

The four implications above are in close relation to textual scholarship, that is a general term that has been used to describe “all the activities associated with the discovery, description, transcription, editing, glossing, annotating, and commenting upon texts, [where] textual scholars study the *process* (the historical stages in the production, transmission, and reception of texts), not just the *product* (the text resulting from such production, transmission, and reception)” (Greetham 1992: 2). Interestingly enough, this definition suggests that textual scholarship is very much subjected to the inclinations of editors in their search for the best base-text upon which they will create their edition, as well as their political or religious ideology when editing historical or religious manuscripts.

The methodology of textual scholarship involves different but complementary stages such as bibliography, codicology, palaeography, stemmatics and scholarly editing. These practices of textual scholarship, however, may be entirely or partially carried out. Consequently, some bibliographers would conceive the work on bibliography as an end in itself, whereas most textual scholars see palaeography, codicology, analytical and descriptive bibliography as the introduction to the real purpose of textual scholarship, which is “the reconstruction of the author’s intended text or a critical edition focusing on some other version of it” (Greetham 1992: 5–9).

When it comes to the different phases through which textual scholarship can be carried out, enumerative or systematic bibliography is concerned with the physical evidence in books as a powerful tool for historical investigation (Greetham 1992: 5; Tanselle 2009: 7); codicology and palaeography aim at the physical description of the volume, the former focuses on the characteristics of the volume (material, dimension, ink, decoration, quiring, ruling and foliation),



while the latter analyses the script, numerals, marginalia, abbreviation and manuscript corrections (Greetham 1992: 6; see Chapter 2 for such analyses in H135); stemmatics studies the relation between texts, a fundamental discipline to text history together with linguistic analysis (van Reenen and van Mulken 1996: vii); and finally, scholarly editing concentrates in the edition of texts.

3.1.1. Scholarly editing

Scholarly editing is whatever produces those weighty tomes of authoritative texts accompanied by thick annotation, dense critical apparatus, lists of variants and historical collation, glossaries, and commentaries: in other words, those volumes in which the text is thought to need the intervention of scholarship for its better understanding (Greetham 1995: 1)

The culmination of a textual scholar's labour is the edition of the text, where all the analyses carried out until this point are put together in order to prepare "a version of the work for presentation to a reading public, [...] where the first decision to be made is whether the edition is to be *critical* or *non-critical*" (Greetham 1992: 347). The former attempts at the creation of a single text out of different but complementary versions, whereas the latter is meant to reproduce a text already in existence.

Textual scholars have traditionally adopted different approaches in the edition of texts. Consequently, non-historical scholarly editions could be exemplified in the work of the editor of a publishing firm who is interested in collaborating with the author (in terms of spelling or punctuation, among others) to improve the final work. This practice is labelled 'creative', differentiating it from the editions performed by professional scholars, who aim at preserving a text that existed at some prior moment (Tanselle 1995: 13–14).

Historical scholarly editions, in turn, aim to move towards the texts that were intended by their authors, that is, their intentions. There are two basic



procedures in order to accomplish this task: 1) the editor maintains a considerably passive role of preserver and purveyor; or 2) the editor becomes the active repairer of the damages wrought by time (Tanselle 1995: 16). These two different methodologies show how the same objective can be reached following two different paths. While the first one is conservative in the sense that the ultimate purpose of the edition is the transmission of the text in the edited document, the second is more concerned with amending that text and presenting it to the reader in a version as perfect as possible.

3.1.1.1. Critical editions

From a traditional viewpoint, the first two areas in which textual criticism was practiced were classical and biblical scholarship. The labour of the textual scholar could then belong to *lower criticism*, the aim being the determination of reliable readings; or to *higher criticism*, when the scholar “took the texts and subjected them to interpretation, including historical and aesthetic commentary, critical annotation, and so on” (Greetham 2013: 16; see also Greetham 1992: 297–305). Within this process, the textual scholar would carry out two basic operations: *recensio*, the process of establishing the archetype or latest common ancestor of all surviving manuscripts; and *emendatio*, the correction of what appear to be errors (to the eyes of a particular editor at least) in all preserved texts (Tanselle 1983: 25).

These traditional approaches to textual scholarship contrast with the work of Joseph Justus Scaliger, considered the founder of textual criticism, as his work *Astronomica* evinces the divergences between the subjective eclecticism of earlier editors and the more conservative methodology of the new. After him, two directions were adopted in textual criticism: 1) to place the study of the text and the editorial restoration of authorial intentions within the broad discipline of philology, where textual criticism was often seen as the summit of philological work; and 2) to bring an increasingly specialized competence to the discipline of



textual criticism, where edition is dependent on the application of verifiable scientific principles (Tanselle 1995: 16). The former direction was predominant during the early modern period (from the seventeenth to the nineteenth century), while the latter was adopted from the nineteenth century to the present day (Greetham 1992: 314).

3.1.1.2. Non-critical editions

Non-critical editions have been defined by Greetham as a reproduction of a text already in existence and its use “as a vehicle for annotation or interpretative criticism”, where different types may be found (Greetham 1992: 347):

1. The photographic reprint: a technically exact reproduction of the original.
2. The type facsimile: it attempts to reproduce the actual physical appearance of the original in a different type-setting, by observing such features as the original lineation, type-size and type-face in the reprint (Greetham 1992: 350).
3. The diplomatic transcript: it dispenses with any attempt at such scrupulous fidelity to appearance, and concentrates primarily on the textual content of the original, reproducing the exact spelling, punctuation and capitalization (usually) of the *diploma* (the document), but transcribing the text into a different type-face, with different lineation (except in verse, of course) and different type sizes.

3.2. The Edition of H135

The edition provided in the present dissertation is semi-diplomatic inasmuch as it not only offers a faithful reproduction of the original but also incorporates duly signalled, minimal editor intervention in order to facilitate the task for those readers not acquainted with early Modern English scribal practices.



The present semi-diplomatic transcription follows a graphemic approach, that is, the use of a single symbol for each letter in the text, irrespective of the different renderings that the scribe may employ for the same letter (i.e. different allographs for *<e>* or *<r>*, among others).⁸¹ The following editorial guidelines have also been adopted:

- Line breaks have been faithfully reproduced.
- Punctuation, word division, spelling and capitalization have been preserved as in the original witness.
- Abbreviations have been expanded in italics:

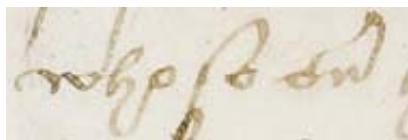


Fig. 3.1. *who so euer*

- Superior letters have been lowered to the line:



Fig. 3.2. *with*

- Insertions, which may appear above the line (/-\) or in the external margin (\-\/-), are marked with the use of the slashes:

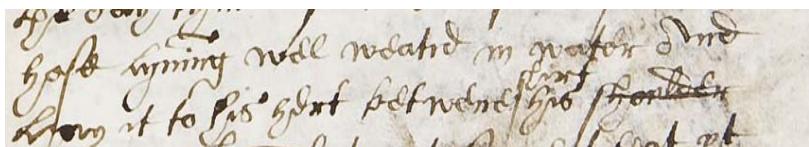
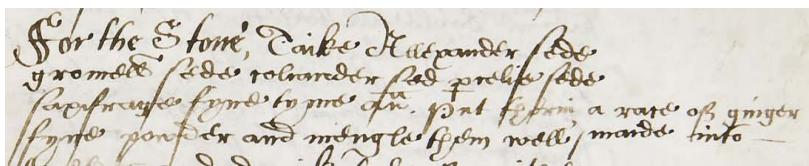


Fig. 3.3. Insertion above the line⁸²

⁸¹ This is opposed to the graphic approach, where a different letter is employed for each of the allographs used by the scribe for the same letter.

⁸² *hose lynning well weatid in water And | lay it to his hert betwene his /shirt\.*

Fig. 3.4. Insertion in the margin⁸³

Classical Text Editor (1997) has been selected as the software to prepare the edition as it allows for the incorporation of different apparatuses with different information. Thus, the edition is accompanied by two apparatususes. On the one hand, the first is used for manuscript corrections, where cancellations (*cancel.*), expunctions (*exp.*) and emendations (*emend.*) have been included. On the other, the second contains the information appearing in the bottom margin (*bot. marg.*) or in the external margin (*ext. marg.*), as well as the lacunae (*lac.*). In the case of the annotations in the margins, the hand in which they are rendered is also specified, i.e. HA, HB or HC (for Hands A, B or C, respectively).

A digital edition has also been prepared, which is freely available online (Figure 3.5) and presents some advantages over the printed one. First, the reader can check the choices made by the editor at any moment, as they are rendered in italics and can be compared to what is written in the original witness. Second, the reader is able to analyse textual aspects that can only be found in the original, such as text layout and the different hands. Finally, the manuscript, together with its semi-diplomatic transcription, can be accessed from any device with internet connection, thus avoiding exhausting and expensive trips to the libraries in which the witness is housed.

⁸³ FOR THE STONE, Taike Allexander sede | gromell sede coliander sed percelie sede | saxifrage fyne tyme ana. put therin \\ a race of ginger maide into // | fyne powder and mangle them well.



The Malaga Forme of Early Modern English Scientific Manuscript

Show Show Bookmarks: Treatise on Surgery [34r - 73v] Close

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Change tab 34r LIBER PRIMUS 74

THE heade happenith to be wounded in divers manners , somtyme with breakinges of the panne , and somtyme without breaking thereof , And somtyme yt is a litle wounde in the skyne and somtyme a greate , wherfore ther longithe divers helinge thereto , And somtyme the panne is broken with hurtinges of the tees and then it is for to dreade , Ther be two teese , one is callyd pia matter and that is the nethermost , next the braines , the other is callid dura matter and it is next the pan , Thowe shal knowe when dura matter is hurte by thys tokenes , Akinge in the heade , readnes in visage , swellinges in the eare And rasinge blacknes of the townghe and ca But when pia matter is hurte thowe shalte se all the foresside tokenes with those that follow he shalbe spechles and certeyn pustules and spots shall appear in his face , also blode and matter shall come furthe at his eares and

Fig. 3.5. The digital edition of H135 (available at <http://modernmss.uma.es/Library>)

LIBER PRIMUS

f. 34r

THE heade happenithe to be wounded in
 divers manners, Somtyme with breakinge of
 the panne, and somtyme withoute breaking
 thereof, And Somtyme yt is a litle wounde
 in the skyne and somtyme a greate, wherfore
 ther longithe divers helinge therto, And some-
 tyme the panne is broken with hurtinge of
 the tees and then it is for to dreade, Ther
 10 be two teese, one is callyd pia matter and
 that is the nethermost, next the braines, the
 other is callid dura matter and it is next the
 pan, Thowe shalt knowe when dura matter
 is hurte by thes tokens, Akinge in the heade,
 readnes in visage, swellinge in the eine And
 rasinge blacknes of the towngē and
 But when pia matter is hurte thowe shalte se
 all the foresaide tokens with those that folow
 he shalbe specheles and certeyn pustules and
 20 spotts shall appeare in his face, also bloode
 and matter shall come furthe at his eares and
 nosethrills and he shalbe costiff and he shall
 haue colde sheveringe axes thries or iij tyme on
 the daie and this is certeyn token of deathe
 and is the last of the foresaide signes and he
 shall not live at the most passinge a hundredth
 Dayes

WHEN the breakinge of the pane is greate with
 a large wounde whether yt be made with sworde
 30 Or other weapone and their be any lose bone,
 drawe it furthe if thowe maye that is to saie
 if yt stick not fast or if the patient blede not
 muche, or if thowe be not like to greve þe patient
 verie sore, And so sonne as the bone is furthe
 Take a softe pece of a lynnē clothe and put it
 softelie betwene the pan, and dura matter with a gose
 pen maide therfore, And on the mowthe of the
 breakinge of the pane, laye small drie lynt

f. 34v

16 and] lac.

40

and aboue that laie sotill ly net with the white of
 an egge, and therof sprede on a brode clothe, lay
 it aboue and bynde fast, And thowe shalt dight it
 ij or iij on the daie, and at euerye tyme take out
 the oulde ly net and put in newe, and so thowe
 shalte woorke vnto the sleshe be growen aboue
 it . If it So be that ther growe any fleshe vpon
 Dura mater before the pan be restorid then
 take sotil powder of poumisse well washed
 and dried before and shrewed therupon
 and it shall frete it awaie withoute any disease
 if so be that after the pan be nesherid ther
 grewe aboue the nesheringe any prowde fleshe
 Then take powder of Armodactulus shrewe
 therupon and laye aboue it ly net . And if thow
 cannot get Armodactulus then take the powder
 of Calcioned Alom, And when the fleshe is
 freted awaie then lay therto Apostolicon whiche
 is maid in this wise. Take of pitche and of
 Calophony, galbanum, sarapine, gume amonac oppa-
 nac, of eche *half an vnce* of wax, thre *vnces* if it be
 in sommer, if it be in wynter ij *vnces*, viniger
half a pinte, Put the Viniger in a Vessell with the gummes
 which cannot be powdred that is to say galbanum amonac
 Serapine opponac and put them on the fier and melt
 them, then put therto the pithe and the calophony
 and the waxe, And when all is molten set yt
 fro the fier and shrewe therin halfe an *vnce* powder
 of mastik and as muche Olibanum and stere alle
 well together, then powre it furthe into a
 Vessell of water streamid throwghe a bagge of
 canvas, And if therbe put therto ij *vnces* of tur-
 pentyne it is muche better, And when it begin-
 nithe to cole in the water, then knede yt betw-
 ixte thy hande and make therof Rools, and
 lap them in rede lether. This pretiouse
 Apostolicon is goode for the milte and principally
 for wounds, And also it is goode for the breste

f. 35r

70

57 is] HA. ext. marg. To make Apo | stolicon 60 viniger] HA. bot.
 marg. *half a*



or of any other place caused throughe bryse or
Stroke or fall /

IF THE breakinge of the pane be greate and the
wounde aboue is straite so that thow cannot be
certeyne of the Quantitie of breking Then put
in the finger and fele diligentlie how muche the
breking is, for thowe cannot better knowe the
breking of the pan then with the towching of
the finger, And when thowe haste knowledge
of the quantity of breaking of the pane then cut
the straite wounde cros with a Rasour and with
some crokid sharpe Instrument reise vp the fleshe
frome the pan And yf ther be any lose bone draw
it furthe, neuertheles if the patient blede fast
stawnche the bloode and draw nothinge furthe
Vntill the seconde day with pynsons maide ther-
fore And then lay a clene olde softe lynnен
clothe betwene the pan and dura mater And
after dight yt as is saide in the next chapter
aboue And for the cut of the Rasour wete
lynet in the white of an egge and lay therin
and a dowble lynnен Clowte sprede aboue
And every morninge and eaveninge dight it
And when the pan is restored heale it vp with
vnguentum viride

IF THE Pan be broken in suche maner that parte
of it is pressed downe, And the superfluity therof
cannot be disseverid Then make holes aboute
that place which is broken inward for to lett
owt the matter and after heale yt like other
woundes

IF A WOUNDE be in the hede without breakinge of
the pan dipp lynet in the white of an egg
and fill the wounde therwith And if it be
in the winter tyme then let make an emb-
rocation therfore in this wise, Take brama
vrsina, malows, xicorie, woodebynd of eche
like muche, of them ale an handfull with half

f. 35v

80

90

100

110

⁹¹ furthe] HA. bot. marg. vntill



of swynes grece and menge them well toge-
ther vpon the fier and put therto iij.
of wheat flowre and ij *ounces* of powder of
lynesede and ij vnces powder of Femgrece
and put therto white wyne and sethe
alle together And when yt waxithe thik
then set /it\ frome the fier and sprede therof
Vpon a clothe and lay it therto Warme at euerye
tyme And if it be in sommer tyme then make em-
brocation in this manner, take a handfull of
the leaves of malows, Stamp them and kneade
them with iij vnces of olde swynes grece and not succid
and put therto a little Iuce of petit morel and
a fewe leaves of violetts stamp theim and put
thereto wyne and wheate flowre and a litle hony
and stere all together and put it vpon the fyer
to it waxe thik then take it downe and let yt
kele and sprede of this vpon a cloth and lay it
to coulde, Thes embrocacions we vse for diuersity
of tymes and we dight the patient therwith vnto
ther comme mater therfro, then lay vnto the
wounde lynnet and nothing els vnto the wound
be well dried / After that put therto vnguen-
tum fustum vnto it be hole whiche is thus made
Take meat oile and shepe talow of eyther j *pound*,
piche *half a pound*, Colophony iij vnces, waxe iij vnces
in the sommer, and ij in wynter, mastik, olibanum
galbanum, amoniac, serapine, oppanac, put
the gumes in a pan over the fier to it be
well molten together, then take powder of
mastic, olibanum, Shrew it on and stere it well
together, to tyme it be wel dissolved, then
put therto ij vnces of turpentyne and strein
all throughge a canvas pocket into a vessell
colde take yt oute and kepe it to thy vse This
is goode for all maner of new wounds for it
will gender goode fleshe and freat away bad

f. 36r

143 over] *cancel.* we

121 therof] HA. *bot. marg.* vpon 138 made] HA. *ext. marg.* To make |
vnguentum fustum 151 bad] HA. *bot. marg.* fleshe



fleshe and makinthe sores yelde fare matter by vertue
of his drawinge

f. 36v

OFF Swytinge somtyme is caused swellinge in
the heade withowten wounde and somtyme
breakinge of the pan somtym withowt, And
the breakinge of the pan somwhiles apperith
by towchinge of thy finger and somtyme it is so
pryvy that yt cannot be *perceyvyd* by touchinge
with thy finger: When the breaking is openly
perceyved then cut the fleshe aboue crowise and
do as is abouesaide of the straite wounde, and
yf thowe be dowtfull whether it be broken or
not cut not the fleshe by the space of v or vj
dayes, and in mean tyme take hede to the
chere of the patient, and consider if his appe-
tyte be nougħt if he be costif if he slepe
noughtilie and vnethe can make water and
if he have a hote fever those are signes that the
pane is broken The cure therof is this, Cut
the fleshe aboue with a rasour cros wise as is
abouesaide x, And when swellinge of a
stroke is withowten any wounde or breakinge
of the pan make suche an embrocation, Take
wormewood, mugwoorte, hockes, Reu, comyn
annyouse, of eche like muche, stampe them
and menge them with mete oyle in manner
of plaister wise, and sprede yt on a clothe
and lay it therto iij or iiij tymes on the daye
in winter warme in sommer colde And if
the matter be not put away withe that
Medicyne thenn make suche an embrocation which
shall soften yt and ripe the matter anon, Take
wormwood mugwoorte of eche a handfull
Stampe all thes well and put therto iij vnces
of wheate flowre and a litle powder of comyn
and put therto a quarter of a pynte of honye
ij vnces of swynes grece a quarter of a pynte of
white wyne and boyle them on the fier to

f. 37r

181 that] HA. *bot. marg.* med



190 yt waxe thik And plaster therof to the
 swelling sore vnto the matter fall to riping
 And where the matter restithe most make
 an issue and presse it owte welle with thy
 hande and if the matter be hard clamyd
 together then put in thy finger and breake yt
 and bringe it owt And after further
 the healinge as hereafter in care of Appos-
 temes

200 WHEN the fleshe is cut and therwith a pece
 of the pan by weapon or fall in so muche the
 skyn dothe hing down Then pare awaye
 the pece of the pan so softelie as thowe cann
 then take the skyne and lay it to his place
 as it was at the begyninge, and sew yt to the
 vppermoste perte with a sharpe cnarelle neld
 And after take yt in oder diuers places as
 thowe seist nede, But the nethermost
 perte of the sore thow shalbe leave open by-
 cause the matter and filthe many have
 issue their And shrewe euery daie aboue vpon
 The wounde pulverem ruben consolidatum which
 is thus made / Take pouder of conferye dried
 j vnce, of bole armoniak j vnce, colophinie iij vnces
 mastik, olibanum either *half an* vnce, sangins draco-
 nis, gume of ether ij vnces stampe all together
 and kepe it together to thy vse, This
 powder is goode and preciouuse to strange
 blode and to make consolidation and hole skyn
 aboue a wounde wherfore lay it aboue thy su-
 ing as I haue saide before and aboue the
 powder lay a playntane leef And in the nether-
 moste parte where I said it shoulde not be sued
 put a litle tent drie to purge out the matter
 vnto ther will come no more matter therfro

f. 37v

207 But] *cancel.* when

196 after] lac. 205 neld] HA. ext. marg. Anoynt thy | neld withe |
 Talowe 210 vpon] HA. bot. marg. the 212 made] HA. ext. marg. To
 make pul | verem rubens



and vntill the hole be fillid vp with fleshe
 and strewe euery daye ones of the rede powder
 aboue ix or x daies vnto thow se the fleshe grow
 fare together aboue, then shalt thowe lose þe
 thredes and draw them awaye and after laye
 230 therto faier lybet and vnguentum fustum or some
 other sanatif And if the sore yelde so muche
 matter then lay therto onelye drie lybet, For
 as all the doctors of this friend do say lybet
 is a greate dryer and a great clenser

WHEN THER ys a wounde in the visage
 as is the hippe or any other noble partie of þe body
 in so muche it ought nightlie to be sewed parte to
 parte Then take the partes, and put them even
 together in warde as tenderlie as thowe cann
 and take a sharpe qnarell nelde with eaven
 240 Twyne silke threde, And knyt euery stiche fast
 a ynche space betwene euery stiche And thowe
 may take a goose pen beyng open at the end to thrust
 again the neld poynt vpon the skyne syde so that
 the neld may enter into the pen and that the
 pen may thrust downe the fleshe vpon the
 neld and thow must thrust boldly and hard
 for thow shalt perceive it to require a greate
 thrust And if the nose be cut ouerthwarte
 250 then after it be iustlie sowed vp put twoo
 little pilows on ether syde to kepe the
 nose iust and stedfast And also a brydle
 and a splet vnder the nose end / And if it
 be nede take tente and put into the nose-
 thirlls to souke vp the matter And the filthe
 of the wounde And in alle manner of sewinge
 thow ought to leve a certeyn place open by
 the which the filthe may haue issue and ther-
 to put in a tent, except in a grystly place
 260 as the nose or eares which ought to be sewid
 vp euery dele And in alle manner of
 sewinge thow ought to vse pulverem Rubene

f. 38r

240 eaven] HA. bot. marg. twyne



as is abouesayde

FOR Wounde *with* arow or darte in the visag
 by the nose thrills or besyde the eighē on the
 cheke bone so that the yron haue entrid depe
 or sleythe *within* some narow croked place
 then it is wonderfull laborious to draw
 furthe, neuertheles euery su/r\gion after his
 270 Good wytt ought to devise how and in what maner
 yt may be best donne And if the shafte styck
 fast in the hede then must the wound be made
 larger besyde the shafte and a tent put in the
 depenes that yt maye touche the yron and
 shrew first powder of Capons vpon the tent
 anoynted *with* a little hony And when the place is
 somewhat maide large *within* then wagge the shafte
 to and fro gentlye and will it wax lose And
 if it leave the head behynd then ax the patient
 280 how he stode whenn he was hurte that thow may
 take a sercher and serche the wound *within* like
 as the arrow went in And if the sercher
 may not come thereto then shrew therin pouder
 of Coipons to enlarge the hole vnto thow maye
 touche the head then shall thow haue an In-
 strument in manner of a pare of litle tonges
 And therwith draw furthe the heade and if
 it cannot be drawen furthe *without* greate
 hevines then better is to let yt remayn *within*
 290 For I haue known divers persons that haue
 lived many yeres which haue had Arrow heades
 and darte heades remanyng *within* them
 And when the heade is drawen owt then take
 a tent of lard of Bacone and put into the hole
 And if it be so depe that the larde cannot
 reche the Bottome Then take a tent of lynnē
 clothe and anoynt it aboute *with* swynes grece
 and put it into the hole And beware thowe
 hele yt not over sone vnto tyme the rust. of.

f. 38v

f. 39r

275 tent] *cancel.* and

269 his] HA. *bot. marg.* goode 298 thowē] HA. *bot. marg.* hele

- 300 the head and all other corruption be come fur-
 the Wherfore it is better annoynt thy tent
 with larde of Bakon then with swynes greace
 and when thowe sees the wounde is faier
 and Cleane and sendithe not oute muche ware
 but begynnithe to dry vp then wi/t\hdraw the tent
 and put yt no more in but heale yt vp like
 other woundes
- IF THER be maide a Wounde with a brode hoked
 arowe and the head stickithe still wi/t\bin, Firste
 310 we ought to haue a pare of tonge therfore and
 therwith thrust the barbes of the heade together
 and then take fast holde by those two barbes and
 warely draw it furthe And if it yet stikfast
 then take ij hollow pipes of yron or bras or
 two goose pens And then fast the tongue on the
 myddle parte of the heade and draw it owte
 wisely And when it is furthe heale yt as I
 haue sayde in the Chapter next before
- OFF smytinge or fall sometyme the pan
 320 may be brused that it may fall inward which
 shall make the patient haue wunderfull
 dreames as he were among his enemies
 and in battaille And when he slepeth he
 shoulde Seame as he wakid Fyrst shave
 the head where the Brusing is and cut the
 fleshe with a rasure in manner of a cros, Raise
 the fleshe frome the pan where it is thrusten
 downe And afterward the pan is persid all
 Aboute ther where it is fallen downe and the same
 330 pece raised vp and taken away, after heale it
 vp as is sayde of other woundes /
- Soome manner of Scalles be curable and
 some ar not, Skalles that are /vn\curable they are
 knowne by thes tokens, the skyne of the patient
 is hard and sad and it castithe out many
 Skalles which fretith away the heare, and this
 manner of Skall thou shalt not meddle with

f. 39v

328 all] HA. *bot. marg.* aboute

340

And ther is two manner of Skalles that is
curable, one is which hathe great rooted heres if
thow pull forthe some of the heeres thowe
shalt se yt to be so and the heeres are stiff like
the brystle of a swyne yet the skyne of the
head is wounder hard and sad, the other skalles
which are Curable make great flakes on the hede
and the patient hathe mucche eke therof, and
somewhiles ther commethe out therof mucche matter
and fylthe, For the ij Skalles curable

Take *a pound* of blak elebore an vnce piche. j vnce
of meat oyle merge all those well together
in manner of an oyntment And if it be

nede in the wynter take oyle of mitts in stede
of meat oyle And annoynt the head therwith
And where thow sees any hear stik in the
skalles then pull them oute by the rootes
And annoynt it euery day to it be hole And if
the skalle be newly broken out aboute
the space of one yeare then maye it
be healyd with this oyntment. Take South
erenwood, egremoyn, Skirwhite, leaves

of winter, mugwoort, Spertwoorte of eche a
handfull stampe them and kneade them well with
meat oyle a pynte and *a half* and let them rest
in the oyle x. or xij. dayes after streyn
them and with this oyntment annoynt the
skalle heade *every* daye to he be hole And
after tyme strewe of this powder vpon the
skall, Take powder of Stavesacre And
powder of white elebore of eche j vnce And
menge theim together /

370 is a Superfluitye springethe in some
heade in manner as it were Blaynes, For
which take Sulphur vive ij vnces, the powder
of white elebore j vnce, powder of commyn
and powder of Stavesacre of eche an vnce
and menge them well together with swynes

f. 40r



greace in manner of an oyntment and therwith
annoyn the heade And this preciouse medcyn
therfore is provid, It is also a preciouse
oyntment for the Skall./.

- 380 Sometyme There springe Certeyn rownde
knobbes like to wax kernells and some Are
greater and some smaler, And we call
them in englishe wennes or scrophules
And some of the knobbes ar hard and some
are softe and some be moveble and some
unmoveble, Those that are softe woulde
be opened with a lancet and the matter
thrusten owt with the finger / And thou
shalt fynd a fylme therin which thou
shall draw out and if thou cannot draw it
furthe Then fill the hole with lynnet wet in the
white of an egge and a clothe spread aboue
to bynd it down And on the second daye
Vndo yt and sprede therin powder of affodill
and it will frett the philme away and the
powder is thus maide, Take of the Iuice
of affodill v vnces vnquenshid lyme / in the
Iuice and then the powder of orpymtent
and stere them altogether well and when
they are well mengid put it in the sone
to dry vnto it be all well nere drye pouder
then make thereof litle rounde flat pelletts
eche one the brede of a penny or ij pennyes
and the thicknes of iiiij groats of silver
then put them in the sonne to they be well
dried This powder is preciouse for alle
manner of Cankers and mormalls and to
fret away all manner of dead fleshe and
especially filmes of wennes wherfor
strew of this foresайд powder in the
foresayd wounde And when the wounde
is waxed bolned then the filme is fre-

f. 40v

388 thou] rep. thou

377 medcyn] HB. ext. marg. Skall 390 it] HA. bot. marg. furthe

tid awaye wherfore afterward to drye
 vp the wound thou shalt take lynet
 wett in the white of an egge and
 lay in the wound and abouen a litle
 dowble clowte well wet in the yolke
 And thus thow shalt dight it vnto it
 send furthe white matter and hele
 420 it vp with trete And if it so bee ther
 be a littill hard wenne to the quantitye
 Of a crabbe and sittithe fast and will not
 remove from one place to an other, then cut vp
 the wen hard by the pan, levinge no fleshe
 on the pane where the wen satt, then strew
 vpon the same place pulverem rubene euerye
 daye twise vnto it haue restored fare fleshe
 aboue, then heale it vp. But if the wenn
 be great to the quantity of a littil costard and
 430 sittith fast to the pan and will not move
 to and fro, then I giue the counsell not to
 meddle therwith for if thou cut yt or laye
 any corrycive therto the patient shalbe in
 ioperdy of his life And if so be that ether
 of thes foresayd wens will move frome
 one place to an other then shalt thou first
 cut the vttermost skyne on crose wise and
 the hole gobbet that thow fyndest therin
 drawe yt furthe hole and after take pulvis
 affodile and temp it with a litle hony and
 lay it vpon lyenet and fill the hole therwith
 440 and dight it so euery day twise vnto it be
 hole

FOR Wateringe eye Take powder of olibanum
 and mastick and make it in manner of thik
 butter with the white of an egge and
 sprede it vpon a lynn clothe in maner
 of a playster and then lay it to the
 temples and let it rest to the space of
 iiiij dayes then take powder of olibanum

f. 41r

450

421 quantitye] HA. bot. marg. of 450 olibanum] HA. bot. marg. and



And aloes epatic of either like mucche menge it
 with oyle of violet and a litle white wyne in
 manner of an ointement with grynding vpon
 a moller stone and take thereof the bignes of
 a pease and put on the corners of the eyne
 when the patient goethe to his bed

f. 41v

IF teyn yeke or bren take j. vnce of litarge gould
 olibanum, aloes epatic of ether the iiijth parte of an
 vnce grynd alle those vpon a moler stone with
 460 the oyl of violet and Iuice of celodyne and
 put therof, in the eyn, And if he haue great
 bytinge and akinge in the eyen then take the
 croppes of brymbell and of wormwood and
 stamp theim and wringe the Iuce forthe and
 meng therwith as muche water of roses and
 grynd with this licour powder of aloes and
 mastic in manner of an oyntment with the
 which annoynt the eyen when the patient
 goethe to bed

470 TO FRETE awaye the webb in the eye take two
 handfulls of celodonye stamp it and take the
 Iuice thereof and put therto as muche /metes\ oyle and
 let them rest together ix dayes Then put it
 on the fier and powder of vertgrece mayde
 to suttill powder vnto the quantity of *half a*
quarte of an vnce and make theim boyle together
 a litle while vnto it haue a passing grene
 color then take it fro the fyer and shrew theron
 j *quarter* of *pound* of aloes epatik and when it is
 colde put it into a glasithe which is a *reciose*

480 Medicine for Webbe of eyen And when thoue shalte
 worke therwith take a fether and pill all awaye
 savinge the toppe of the fether and dip it in the
 foresayd medcyne and therwith sheyke throughe
 the eye that hathe the webb

f. 42r

FOR bloode in the eyn thrughe a stroke or any
 suche thinge or great swellinge outward

480 *reciose*] HA. *bot. marg.* medcyne

490

Take fyer new waxe and chauf it at the
 fyer to it be softe and menge therwith suttill
 powder of new commyn And then sprede it
 in manner of a plaister and laye it therto
 warme and so euery day dight it twise, or els
 /take\ vervyne and woormewood stampe them wring
 furthe the Iuice and meng it with water of
 roses and with a fether put of this licour in thy
 eye

THEIR IS a Superfluity of fleshe risinge some-
 tyme in thy nose and semithe as it were polipus
 and it is not for it grewithe in the large
 500 holes of the nose and somewhiles so longe
 that it hangithe down on the lipp The cure
 therof is this, put an Instrument of yron
 into the nose thirle that is somewhat
 crooked at the one end and take hede that
 the croke of the yron touche the further parte of
 the superfluitye then take a lancet in the other
 hand and cut it so nere the roote as thou
 can and draw it furthe with the crooked yron
 Then shalt thou make a great shorte tente

510 And anoynt it aboute with hony and after strewe
 therupon small powder of Aloome calcioned
 and thus dight it ij dayes and after dight
 it with vnguentum viride to it be hole Vng-
 uentum viride shall thus be mayde Take
 Celidonye allia the rootes and the leaves of centin
 gally and of wilde lovage of eche an handfull
 stampe thes hearbes well and menge them
 with a pound of shepe talow and a pynte
 of meate oyle and so let them rest x or xij
 dayes, after put it on the fyer and maike
 it to boyle a while after straine it throughe
 a bagge and put it on the fier agayne and
 if it be somer put therto iij vnce waxe and in

f. 42v

520

488 fyer] emend. fyer

509 tente] HA. bot. marg. and vnguentum | viride 513 it¹] HA. ext. marg. To make

- wynter but ij vnce. and when it is molten
 put thereto olibanum, mastic and vertgrece
 of eche *half an vnce* and stere alle well together
 Then take it fro the fier and strewe of aloes
 epatik and stere altogether and then let it
 cole and kepe it to thye vse This vnguentum
 530 viridem is a preciouse salve bothe to olde sores
 and wounds and also to new for it engendrithe
 goode fleshe and fretithe awaye evel fleshe
- POLIPUS grewithe in the marrow place of þe
 nose thrille and afterwerd the grether that
 it waxithe it fallithe downward more and
 more because of his apreise and also by driving
 of the wynde and it smithe as it were a
 gobbet of fleshe hingening in the nose thirle
 and some, polip is curable and some is not
 540 The tokens of polipus that is curable be thees,
 the gobbet of fleshe is blak and alle the nose is
 wonder hard and blakishe of colour and the
 Gobbett fallithe not downe but remanithe
 aboue in the straite place of the nose
 The tokens of polipus that is curable
 are those, The nose is somewhat softe
 and is as any hole nose and the gobbet
 is fallenn downe the which disease may be
 holpe *with cuttinge in this manner* First shauie
 550 a payer of sotill small tounge and put
 them into the nose thirlls
 and fasten them vpon the gobbet and thowie
 shalt draw it furthe quickly then take
 the yolke of an egge and menge therwith
 a littill Flowre of wheate and make a
 greate shorte tente wett with the same and
 put in the nose do so euery daye to it be
 hole And if ther leave any gobbett of.
 in the hole then take a smalle holowe pipe
 560 of yron and put it in the nose thirll

f. 43r

551 them] rep. and put them

539 not] HA. bot. marg. The

570

and therin put a litill yron rede hote
 and burn the pece away that is leste
 And if the pacient be tender and may
 not suffer it then take vnguentum rupto-
 rium and put therin which is thus maide
 Take ij partes of blak sope and one parte of
 vnquenshid lyme make a greate tente
 and annoynete the ein therwith and put in-
 to the nose thirll and let it be in the
 space of six howres then take it furthe
 And put therin a litill lyne wet in the
 white of an egge and dight afterwards to
 it be hole as is abouesayde /

f. 43v

580

590

IT HAPPENS diuers tymes that in the nose thirlls
 or in the lippes or in the gumes a Canker to be
 and therfore it is fretid aboue and the
 place aboue waxithe red and somewhat
 shrinkithe the skyne and fretithe inward
 and if so be the fleshe be harde aboue
 the Canker and the Canker therwith is blak
 then meddle not therwith for it is vncura-
 ble And if the place aboue the Canker be
 somewhat softe and the Canker not muche
 spred abrode then shalt thou hele it thus
 Take a rasure and cutt all rounde aboue therwith
 vnto thou comme to the cleane fleshe Then take an
 yron read hote and burne it in the same place
 and after lay therto the yolke of an egge spredd
 vpon a Clothe and that shall withdraw the vertew
 of the fyre oute of the sore. And if the canker
 may not be cut as if yt be in the nose thirlls
 Then put therto a tent wet in vnguentum egypticum
 euery day to yt be clene and it is thus mayde
 Take x spoonefull of hony and ij sponefull of
 vineger boyle it on the fier to yt waxe thik
 then strew therupon one quarter of an vnce of

566 of²] HA. ext. marg. To macke | vnguentum ruptorium 570 furthe]
 HA. bot. marg. and 592 Then] HA. ext. marg. vnguentum | ægyptiacum

- wax rede as blode / then set it fro the fier
 and kepe it in a vessell for thye vse and
 when the canker is clene freated awaye then
 600 hele it vp with this medcyne Take iij partes
 Of yolkes of egges and one parte of honye menge
 them with the flowre of wheate and so heale it vp
 with this medcyne And if the canker be in the
 palate of the mowthe then burne it with a
 hote yron shapen to the quantitie of the canker
 And if the Canker be in the gumes then weshe
 them well first with vineger and alome, resolvid
 therin thre dayes together And after rub the
 gumes with this licour Take vineger And wyne
 610 of either like muche and boile therin the leaves
 of moleyn And of woodbyne after streyn it
 through a clothe and put powder of ginder
 and of pelleter and of rose leaves and
 orygane and of the rynde of the pomegarnet
 and date stones and of Synamon of euery like
 muche and menge thes alltogether and make
 therof a powder which powder menge with the
 foresayde licour and therwith euery day annoynt
 the gumes vnto yt be hole /
- 620 SOMETYME The heedes of the cheke bones are
 out of their ionte which is knowne by thes tokens
 the nether tethe may not ioine with the over
 closelye as they shoulde do and thus it is to
 be holpen Take the patient by the Iawes and
 bear the heade of the cheke bones outwards and
 lift vp the patient therwith frome the earthe and
 if it be owte of the ionte but of the one syde
 then shalt thou paise frome the earthe on that
 one syde bering thy plome hand on the other
 630 syde and when the cheke bone is in the ionte annoiint

f. 44r

597 set] *cancel.* of **613** of^l] *rep.* and of

600 partes] HA. *bot. marg.* of **602** vp] HB. *ext. marg.* emplastrum |
 sanacticum

it with dewte and make the patient vse sowpinge
 meates and charge him that he put not over
 greate morsells in his mowthe by the space of viij
 or x daies after

f. 44v

SOMETYME in the cheke bone is a fistula and
 the hole therof is straite, Then annoynte the tente
with vnguentum egyptiacum. when the hole is enlarged
 then annoint the tent *with the white of an egge*
 vnto the brenninge therof be put awaye and after /heale it
 vp *with vnguentum*

640

And if anythinge of the cheke bone be cankered
 then paire awaye so muche as is cankered
 And if the teithe strike in the place where
 the bone is cankered, then pull them
 furthe and pare away all the cankered
 place of the bone and after heale it *with unguentum*
 viride

650

FOR the tothe ache if it be caused of a Rotten
 tothe Then take a small yron crooked at the end
 and make yt rede hote in the fier
 and make the patient to gape and set the yron
 in the mydds of the holowe toothe Or
 els take greate salte and put yt in a cuppe
 sherde ouer the fier to it before then put therof in
 a little lynn Clothe and bynd it fast *with a thredē*
 and make the patient ley it vpon his aking tothe
 And when it is coulde take it away and laye
 freshe hote salte therto and Iye so v or vj
 tymes vntill the akinge be gone and know this
 for a good medcyne

660

THERE BE SOME WHYTES KNURRES AND
 knotts in the visage as yt were messebrye
 which is called Sawcefleame and is curid in

f. 45r

650 fier] *rep.* in the fier 652 the²] *rep.* of the 657 laye] *cancel.* it

631 sowpinge] HB. *bot. marg.* take booldlye the thombe and put yt even
 vnder the patient chin And the fingers on the same hande on his
 browes and cast hard with the thoome And will the patient to streane
 himself to knashe his teeth together And shall perceave yt
 660 medcyne] HA. *bot. marg.* Ther

this manner Take vj vnces of honye and one
 vnce of the iuce of spurge and put therto
 this powder. Take tartur and powder of
 musterd sede of either iiij peny weight. powder
 of pepper, allome calcionid of eche ij penye
 weight, borace viij peny weight powder of
 olibanum ij penye weight powder of cotil-
 bon *half an vnce*, Grynd all those vpon a moler
 stone together *with* the foresaid honye in manner of
 an oyntment And with a Rasure cut eche one
 cros wise and annoiit eche one of thees
with the foresaide oyntment euery daye ij or
 iiij tymes vnto the visage be playne, then
 take a cloute and depe in the white of an
 egge and smere all thy visage euery
 day therwith twise vnto it be hole And
 if so be the patient home but small blisters
 in the visage or pimples whether so euer they
 be then annoiit the visage *with* vnguentum
 allum *euery* day to it be hole which is made in
 in this manner Take olibannum, mastyk, of eche
 half an vnce litarge of lede j vnce ceruse
 j vnce stampe all thes to sotill powder
 and menge them *with* meate oyle gryndinge
 vpon a marble stone puttinge therto a
 little vineger at diuers tynes and grynde yt
 Very small vnto ther be no great thinge leste
 therin This ointment is goodd and precious for
 sawce fleme and to drie vpp all manner of
 moist Scabbes and to /doe\ away all manner pimp-
 les and bledders risinge in any place of the
 bodye

OFT TYMES morfew and other superfluities
 risithe in the bodye and specially in the vi-
 sage For the which morfew. Take wheate and
 lay it vpon a hote place of yron And when

f. 45v

674 thees] exp. with 678 visage] cancel. be hole 692 to] cancel. doe

683 in] HA. ext. marg. To mayke | vnguentum album 689 yt] HA. bot.
marg. verie

700 the wheat is strewid ther vpon then lay an
 other hote plate aboue and presse yt downe
 fast through which pressinge ther shall comme oute
 oyle which kepe to thie vse. for it is wondeurfull
 preciouuse for all manner of morfews in the
 Visage or any other place of the body. And
 if so be ther be tetures or ringwoormes in
 the visage Take tarture of white wyne and
 letarge of lede and the shells and foote of a
 Chymney and pelliter of spayen of either like
 muche maide into sotill powder and grynd
 them on a moler stone *with* mete oyle in manner
 of an oyntment and kepe it to thye vse *with* the
 which annoynt all manner of tetures and ring-
 woormes *iiijor* dayes together and it shall
 dryve awaye And all a weke afterward
 weshe thy visage *euery day with* warme water
 in which brome is boylid in.

EXPLICIT LIBER
 PRIMUS

720 OFF WOUNDES THAT ARE MAIDE IN THE f. 46r
 with Swerde or suche thinge Firste take hede
 whether any broken bone or other thinge ought to
 be taken furthe of the wounde, if ther be, then
 draw it furthe and incontinently sew it vp and
 strew ther pulvis rubens and heale yt vp as is
 said in the first booke. And if the wounde
 blede fast thow may draw nothinge furthe at
 that tyme But sew vp the wounde half
 and leve thother half open and strew theron
 730 pulvis rubens and bynde Clowte fast thereto
 that it blede no more And vndo it not to þe
 thirde daye Then draw furth that wiche
 ought to be drawnen furthe at the open place
 of the wounde And after hele it as is
 abouesaide of other wounds

702 through] *emend.* thowhe

705 Visage] HC. *bot. marg.* For a kingworme | or tetter 717 *in²*] HA.
bot. marg. oft

740

IF THE Neck be perced through bothe sydes
 with an arrowe or darte or any suche thinge
 or weapon and also yt stickithe fast therin
 then thow ought first to pull it furthe and
 put into either syde a tente of larde
 and let it rest so thre dayes or thow open it
 Then shall thow finde fair matter in the sores
 and after tent the holes on eyther syde and
 annoint them with vnguentum viride and hele it vp
 as is seide of other wounds And now note
 well that the deper the wound it the
 longer ought yt to be or yt be closyd vp
 And therfore kepe it with tentinge and not
 with muche healinge salve And therfor is thy
 750 tente in suche to be annointed with vnguentum
 viride

750

IF THERE be a wounde in the hatterell of þe
 hede in suche manner that vena organica is cut
 therwith then first sewe the mowthes of the veines
 together with a small nelde and as thowe shalt
 saw the vnder syde haue alway a threde
 vnder the point of thy nelde to lift it vp ther-
 with to haue thy nelde againe at any stiche
 And when all the veine is sewid round
 760 about, then strew therupon pulvis rubens and
 vpon that lay lyenet wett in the white of an egg
 and fill the wounde therwith And let it so rest
 ij daies and then thow shalt finde the sore
 giue fair matter, then euery day twise strewe
 therupon pulvis rubens and sprede vnguentum
 fustum vpon lyenet and fill the wound therwith. Thus
 dight yt to yt be hoole and beware thowe vse no
 other oyntment ther to but vnguentum fustum for
 then thowe shalbe cause of the mans deathe For
 organica vena is a great veyn and hath a very
 thine skyne and nothinge fleshlie and so it is
 tender and harde to consounde therfore if thy
 salve be ouer muche fretinge or to muche draw-

f. 46v

770

739 and] rep. and

780

inge or so muche heate in woorkinge then
shall yt vndo the sewinge wher through the
veine shall fall in bleedinge againe and so shall
folow dethe Therfore in tender place or perrous
hurte I counsell the to vse gentle salves all-
waies And if the hatrell be hurted but vena
organica is not perced then take lynt wett in
the white of an egge and fill the wounde therewith
and let yt rest so ij dayes After vndo yt
And after heale yt vp with vnguentum fustum And
if the hattrell behind be smitten through with an arrowe
darte or qnarell so that vena organica is perced ther-
with and that thowe shall knowe by the great bledinge
first drawe owt the wepon then sew all the wound
together After strew therupon pulvis rubens and
bynd fast the wounde that it bleede no more or
laye this plaister thereto to staunche bloode
Taik powder of frankensence seven penie
woorthe powder of aloes caballyme. j vnce and
the peny weight of the hare of a heire and
temper all thes thick together with the white
of an egge and ley to the foresaid place to
cutting of veines or arteries and it shall.
stanche the blood anon / or whete chewid in
thi mowth / and laid on plaister wise thereto
doth the same And on the third day hooke
the foresaid wounde and then shalt thou finde
therin fair matter wherfore hele it vp with
vnguentum fustum as I haue said before.

800

IF THE Throte be wounded and the wesand or throte
bole partid in what manner so euer it be medle
not therewith for it is deathe And if the skyne
onely be hurted sew it vp and strew therupon
pulvis Rubens and strew it vp as is said
of other wounds.

RYGHT as ther is divers humours in mans

793 a] *cancel.* n

782 yt²] HA. *bot. marg.* and 790 bloode] HA. *ext. marg.* To staunche |
bloode

f. 47r

- 810 body so ther /be\ divers genders of apostumes
 That is to say iiij one of blode another of
 Coler but then be ij manner of colers that
 is to say naturall and inaturall and the
 iiij^t of flewme And the appostume that
 is causid of bloode is redishe in colour
 and great hete aking and smelling ther-
 with The appostome causid of flewme
 hath whitnes in colour and suche softnes
 therwith that if thou storst the finger
 therpon it makithe a pitt as it were
 a Dropsey And the appostome /which is\ caused
 of Colera Rubea which is naturall
 coler yt hath a verie great heade within
 it and readnes of Coler somewhat mergid
 with yealownes And the appostume of
 mallamollie which is coller inaturall. is
 wonder hard in fealing and it is blackishe
 of coler. The cure of all is in this maner
 Take Rew comin Swins greace and flowr
 of wheat and onyons Stampe all thes
 sotelie together in a morter and
 set yt on the fier putting therto swete
 wine and seth yt to yt be plaister
 thick. then ley therof to the appostume eueri
 day twise and so continew to yt fall to
 matter And when the appostume is ripe
 cut it in lengthe with a launcet. and then
 Put into the hole one of thi fingers For that
 shall maik the matter to comme out muche
 better and euery daie tent it twies with
 vnguentum viride
- f. 47v
- 820
 830
 840
- THER is felonies and carbunkles which are
 causid of a wild fervent bloodde and they
 burne and ake wonderfully which disease
 thou may help in this manner. First thou
 must debate the heat of them in this manner
- f. 48r

831 together] rep. together

810 apostumes] HA. bot. marg. Thatt 837 then] HA. bot. marg. put



Take one parte of oyle of Roses and ij parts
 of ioice of morrell and meng them together
 and depe a dowble clowt in it and lay the
 850 clowte often vpon the disease and continew
 thus woorking to all the heat and aking
 be gone. Then heale yt vp *with* this medicine
 Take the yolke of an egg and put ther to
 the sixt parte of salt and sprede therof
 vpon a clothe and ley it vpon the felon
 For yt shall heale all felons after the
 heat is put awaie And yt is sayd if
 comferie be bruised betwene ij stones.
 Throughe miracle of god it shall heale
 860 all manner of felons if it be Put ther-
 vpon and that *within* the space of a day.

ALSO yt happens many times to be so greate
 hete in an impostume that it burnithe and
 skaldith all the place about yt, And if a
 cok or an hene were cloven And layd ther-
 to at even and at morne thow shallt.
 find neuer a Dele fleshe theron because
 of the great hete that comith
 furthe therof. The cure of it is this
 870 even in like manner as I haue saide
 of felons and carbunkles./

FOR an apostume causid of fleme make this
 plaister Taike the tenderine rotes of þe
 hok stampid and sodene in water to the
 quantitie of viij vnces and put thereto j *pound*
 of Swynes grece and half a pynt of
 meat oyle, Sethe all thes well
 together vpon the fier, After strain
 it through a cloth and put thereto
 880 litarg of silver iij *quarters* of a pound
 sottelie ground to powder and maike
 them all boyle on the fier together *with*
 continuall stering to it be plaister thik

f. 48v

867 because] *rep.* because

863 and] HA. *bot. marg.* skaldith



as is diaculum. Then take it frome the
 fier and let yt Coole and sprede it
 on a cloth and ley it to the apostume
 Also Diaculum is good for the some
 diseas which is this maid Taike oile
 meate oyle iij pints and a half. of
 890 litarge of silver iij *pounds* the Retes of
 merthe, malowe, Fennegreke, lyme sede
 Off eche j *pound* let the lyne sede the fennegreke *and*
 the roottes be brisid and let them Rest together
 iiiij daies putting therto five pints of water
 and on the fift daie put it on the fyer and
 make to half the licour be waistid then powre
 it into a thick canvas bagg and straine it
 throughe And that which is stranid throughe is
 callyd instillage Then meng with yt the fore-
 said oyle and set it againe on the fyer
 900 and make yt to boyle strewing in all the
 powder of litarge ouer stering yt vnto the
 dropping be hard when yt is coulde
 This Diaquilon profithe muche to all
 manner swelling of hande and fete.
 and for aking of the bowles and the ballocks
 and for cutting of sinowes and for
 sinowes that are shronken and to soften
 and Ripen all manner of Cold apostemes
 if yt be spred vpon a lynning clothe
 910 and laid therto and for veins that
 are cut and it drieth most humours
 of Roten wounds and helpithe them
 And when the said aposteme is rypyd
 open it with a launcett and tent yt
 vnguentum viride and so hele it vp as is
 said before. Or in this manner may thowe
 maike a hard apostume fall to matter
 Taike the rootes of hock and put them

f. 49r

905 manner] *cancel.* swelling

887 Also] HA. *ext. marg.* To maike | diaculum
 marg. of 899 fore-) HA. *ext. marg.* instillage
marg. in

891 sede] HA. *bot.*
 919 them] HA. *ext.*

- 920 In Water with leaves of bramca vrcina And f. 49v
 after straine it and cast the water away
 and menge with the said Rootes and leaves
 Swines grece butter and honye and sowre
 donghe boyle those together to yt waxe
 somewhat thick and euery daie twise
 ley of this medcyne hote to the aposteme
 Also another Ripinge plaister Take the
 Rotes of lillie and stepe them in water
 then powre owt the water and with the
 930 Rote temper swines greace and put therto
 rostdid onyons and Calwe leves sodden
 and powder of lyne sede knede all thes
 together and lay it vpon all manner of cold
 apopostemes vnto they fall to rypinge
 then open theim and them as is boforesaid
- HERE I thinke to speake of *certein* apostemes
 which grow vnder the armehooles and in the
 share as it were pestilenc sores or bothes
 and those are vncurable. which sucertith
 940 and akithe and burnithh so muche that
 the patient may not slepe wherthroughe
 the pacient hath a sharpe fever And of
 this aposteme I counsell the not to
 intermeddle. Neuertheles if the patient
 fele not great diseas therwith then shalt
 lay some of the saide riping plasters therto
 To maike it ripe Then open yt and if f. 50r
 ther be any harde knurres therin frete them awai
 with powder of caperons and hony together
 950 and after heale it vp with vnguentum viride
- CANKER sometyme is bredd throughe vice
 of inwardlie things and sometyme of owtwarde
 things as of a wound eveill healid for
 if it pas five monethe on yt be hole.
 Then ought it not to be callyd a wound

926 the] cancel. cast

930 Rote] HA. ext. marg. Emplastrum maturatium **946** therto] HA.
 ext. marg. To

but a canker or a fistula, and some
 canker is of long tyme and some of short.
 and some in smowe placys and amonge
 arteries and some in fleshie placys
 960 wherfore some canker is to be heald
 in one manner and some in an other
 For whie a canker in smow place ought
 not to be heald with cautering or els
 with cutting And they which haue
 cankers hidd it is better for them not
 to be heald For thes are the words of

[LATIN]

And for ther is abouthe the neck and þe
 hatterell great habundance of sinowes
 970 and veins therfore it is to be ware to
 marke any burninge or cutting for any
 Canker being ther but if yt haue not bene
 ther over other half yere then heale yt with
 this oyntment Take powder of drie rootes
 langdebeffe iiiij vnces / of powder of the roote
 of Clate v vnces / of powder of the roote of
 Celodyne (*id est celidony*) j vnce / powder of
 gigner j vnce / of quicksilver ij vnces / waxe iij
 vnces in somer and ij in winter of Rosyn as much
 980 as sufficithe Swines grece vij vnces
 First melt thy Swyns grece thi waxe and
 Rosyn together and set it fro the fier
 then cast in all the said powder and stere
 yt well together vnto yt be almost cold
 and kepe yt to thy vse and ley it to the
 kanker And if this oyntment will not
 heale the kanker then strew theron a
 powder which is good to fret awaie cankers
 Being in smow placys and maid in thus
 990 manner Take white elebore rootes and
 the rootes of astrologia rotunda of ether
 like muche and stamp them to powder

f. 50v

963 els] *cancel.* with **980** grece] *cancel.* as **982** it] *cancel.* for

971 any²] HA. *bot. marg.* Canker

and strew vpon the canker when is nede
 and when the canker is fret awaie therwith
 then ley therupon lynet wet in the white
 of an egge and oyle of Roses together
 and when the ache and priking is
 debatid heale it vp with *vnguentum viride*
 and of the canker in fleshlie placis I shall
 speake hereafter.

1000

SCROPHULES do springe in the neck and in
 the throte and in the liskes and glandules also
 and for to knowe glandules and Scrophules
 Take the leves of heyhowe and stamp them
 small and boyle them *with* meate oyle and
euery daie twise make a plaister thereof
 and ley to the scrophules or glandules hote
 at *every* tyme And if they be glandules
 they shall wax lesser and afterwarde
 continew this medcyne and they shall wax
 reade and after fall to matter and when
 the matter of them waxith Ripe *within* then
 cut eche one of them *with* a lancett and
 after put in thy finger and draw oute the
 Releve of the matter that thou
 findes therin. And if ther abyde anye
 harde matter therin Then strew therin
 pulvis affodillarum, which is written in
 the first booke vnto tyme yt haue freatid
 furth all the hardnes. And if it be a child
 within xij yeares age and haue Scrophules
 or glandiles thou shalt heale him *with* this
 oyle Take the Roote of molleyne and Rootes
 of Radishe ij vnces weight and as muche
 weight of meate oyle Seith the rootes in
 the oyle to the third parte of the oyle be
 waistid Then streyne yt through a
 clothe and put of this oyle *euery* daye
 warme ones into the sonne eer, on whiche
 syde the waxe kyrnells bredithe and

1010

1020

1030

f. 51r

1013 cut] *cancel.* yt 1015 Releve] *cancel.* *with thy finger*



yf shall maike /the parties of\ the same eare to swell
 And afterwards matter shall come furthe
 therof And then trust it fullye the grandules
 and the scrophules shall waist away. And
 if they do not then giue him *every* daye this
 drinke fasting the quantitie of foure
 sponefull at ones, Take the rootes of whit
 helebour and blak elebore and the Rootes of
 Astrologia rotunda the Rootes of Radishe
 and the leaves of Lawrell of eche like
 muche and put all thes in good reade
 wyne, After streine yt and put therto
 honye to make yt delycate / And in the
 space of xv. daies *with* vsinge of this
 drinke the child shalbe hole, And
 the Scrophule is soft in touching And
 the Glandule is harde./

1040

f. 51v

HERE I SHALL shew the how and in what
 manner thow shall haue away scrophules
 First take eche of them in thy one hand
 and hould yt fast and cut the over skyne
 aboue with the other hand and then take
 yt owt with the hull it lyeth in / And so
 serve eche of them after an other / And
 if that any of them blede fast after
 Then take lynet wett in the white of an
 egge and laye yt into the hole, and remove
 yt not to the second daye And if ther
 leave any of the scrophule in the hole, then
 strew theron pulvis affodilie and whet it is
 clene then heale it vp with *vnguentum viride*

1050

1060

f. 52r

A FISTULE is an aposteme whose mowthe
 is straite withoute and the grounde of yt within
 is large which fystule is causid and gendrid
 somewhiles of Inwardlie thinges and some-
 whiles of owtwardly thinges / Off Inwardly
 thinges as of corrupt humours, of outwardlie
 thinges as of a wound that was evill healyd

1031 swell] HA. *bot. marg.* and 1061 viride] HA. *bot. marg.* A



And somme fistules are of long tyme and
 1070 somme of shorte tyme And some fistules is in
 plac full of Sinowes and arteries and
 somme in fleshlye plac / And somme fistule
 corruptith the flesh and some the bone and
 somme the synowes. And therfore eche
 one haue their proper tokens wherby
 they may be knownen / For the fistule that
 corruptithe the fleshe onely then yt sendithe
 1080 oute white matter, And if yt haue corrup-
 tid the bone then the matter is like water
 that fleshe was washid in And if yt haue
 corrupt the sinowes Then comithe blacke
 matter furthe To which diuersitie of fistules
 do belong diuers cures, The fistules that is
 aboue the neck where it is full of veines
 and arteries, we dar maike no cuttinge
 therfore ne burninge, But this shall then
 woorke if the mowthe of the fistule be,
 straite, then maike it larger with a bigge
 tent maid in honye and coperows ground
 1090 together, And when the mouthe is large
 ynough then annointe thy tent and withe
 vnguentum ruptorium and so continewe to the
 fistule be stayne and after heale yt vp with
 Vnguentum viride, And if the paciente be
 Delicate and may not suffer vnguentum ruptorium
 Then heale it vpp with this ointment which is
 preciouse in cure of a fistula / Take blacke
 rounde pepper, pellytour of Spaine, Alome
 orpiment, mustarde sede, white elabour rootes
 1100 and blake galles vertgrece of eche like
 muche, of vnquenched lyme as muche as is
 of all make all the foresaid thinges to sottell
 powder and grind theim vpon a moler stone.
 with blak sirope in manner of an oyntment
 And after forme therof in manner of a tent
 and put yt into the hole of the fistule, And

f. 52v

1093 with] HA. bot. marg. Vnguentum 1098 rounde] HB. ext. marg.
 vnguentum pro | fistula



annone after it will melt in the hole and
 sleythe all corruption that is therin, And
 within the space of ij howres take the yolk
 of an egge and wete lynet therin and put it
 into the hole to tyme the smarting and the
 aking be gone / Then heale yt vp with vnguent
 viride / And if the fistule be in smowe
 place which is not full of Arteries / and
 the mowthe therof is straite and the ground
 is not depe then enlarge the hole, and when
 thow hast so done searche the bottome whether yt
 be clene or no / And if yt be not clene then
 dight fyve daies together with vnguentum
 egyptiacum And after heale yt vp withe
 vnguentum viride / And if the fistule haue cor-
 rupt the bone and also the ground therof is
 depe First enlarge the hole and after
 maike this weshing therfore, Take a pynte
 of strong tanwoose and put therto viij spone-
 full of honie and a quarterone of Aloome smalle beaten
 And j vnce of Black sope and boyle all thes
 together the space of half an quarter of an
 howre, / Straine them through a clothe
 and euery daie squirt the fistule full with
 this licour and after tent yt with vnguentum
 mundificatium / And so continew with weshing
 and tenting vnto ther comme furthe of the
 fistule feir white matter, then weshe yt no
 more but tent yt with vnguentum mundificatium
 vnto yt be hole, And if ther be any great
 burning about the fistule then annoint it
 with popilion which is thus maid, Take the
 buddes of populer tree j pound and a half of the
 leaves of papie / the leaves of mandragg
 croppes of brymbull the leaves of hennebell
 and of morell and of stewsore of lettuce
 of sengrue of water clate / violet / pennywoort
 of eche one of thes a quarter of a pownde

f. 53r

1126 beaten] HA. ext. marg. and 1138 the] HA. ext. marg. To mayke |
 poplyon



of freshe swines grece iij *pounds*. First thow shalt
 stampe the burianes of the popler / and knede them
 with swines grece and make in manner of great
 roots, and put them in a dark hows in an erthen
 pott and let them rest so to thow may gett thyne
 other herbes, and when thow hast all thy other
 herbes stampe them breake thy roots and meng
 all together and put all in the pott and let it
 Rest by the space of ix daies. Then put them all
 vpon the fier casting thereto half a pynte of wyne
 and mak yt boyle with a soft fyre to the wyne be
 wastid then straine yt through a canves bagg.
 into a clene vessell and let yt kele / And
 when it is coulde powr furthe the water
 that thow fyndes therin and after kepe yt
 to thy vse / This ointmen is callyd popilion
 bicause yt hath his moste vertew of the
 burions of populer And it is good to debate
 all maner heats of hote apostemes if they be
 annointid about therwith and for all maner of
 hote burning woundes if ther be laid therof
 in the wound and the place therof annoyntid
 therwith all about, And also for the hote burning
 Ague wherfore the patient may not sleepe
 if the temples and the pulses be annointid
 therwith and the soles of his fete and the
 palmes of his handes./

IF THE fistula be depe thow shalt weshe
 it perfectlie in this manner Take an elder tree
 or burtrie pipe and put it on the pipe
 of thy squyrt and aboue that put a button
 so broad as two pence so that ther appear
 skantlie half an ynche of the pipe end of
 thy squirte, And when thow wilt weshe
 thy fistula, thrust the button with thy
 pype hard against the hole of thy fistula
 So that the water being squirtid in do

f. 53v

1179 the] *cancel.* pa**1156** bagg] HA. *bot. marg.* into

not come back again And so thou shalt fill
full and weshe it well

MANY SURGIONS ther be that kurithe
and woorkithe contrarie in healing of the pesti-
lenc boche / wherfore by the grace of god I shall
the plainly the comminge therof And if the
boche be waxen wonder great and is wonder
burning and the patient hathe great Angwishe
therwith, Then shalt thou take this plaster and
lay therto which shall debate aking therof
and Ripe it also, Take the Roots of lyllye
and the leaves of violet and put them in
water, the space of one howre, then strayne
them and cast the water away and put them
in a morter and cast therto a little butter
and yolkes of Egges and Crommes of white bread
Grend all thes well together to yt be all
Sotell then sprede of this vpon a clothe
and lay it to the boche coulde and so do
troies on the daie And if the boche haue
no great burning nor aking then ripe it
with this plaster Take the rootes of hockes
and pill out the hard sticks that be within them
and after sethe them in water vnto they be
passing tender then take them, and stamp
them small and put to them powder of lyne
sede and fenngreke and sowre donghe and
butter and swynes grece and put all on the
fyer and make theim sethe to yt be passing thick
and sprede of this vpon a clothe all hote and lay
yt to the boche and so dight it twies on the daye
to yt be rype And then opene yt with a launcett
And owt the matter therof and after tent
it with vnguentum viride to it be hole And I
let the witt that galbanum nor any suche hote
emplasters is not good for any pestilence boche

f. 54r

1190

1200

1210

f. 54v

1214 And] *cancel.* not

1183 well] HA. *bot. marg.* many 1192 lyllye] HA. *ext. marg.* mitigatium
doloris | ardoris et matu- | ratium 1213 launcett] HA. *bot. marg.* and



for they are hote and burninge. Therfore it
shall rather noye theim then proffitt them /

- 1220 IT HAPPENITHE oft tymes the neck bone to be
of ioint wherfore the necke standithe not right
And if the patient be not holpen anone he
shalbe deade, Therfore ley downe the
patient wyde open and the surgeon also
but the patient hede must be betwene
the surgeon leggs in suche manner that the
surgeon feet must stand vpon the patient
shoulder and the surgeon shall take the
patient by bothe the paires drawing the
head to him warde with all his might to bring
yt to his proper place againe, And
when yt is brought into ioint, annointe yt
afterward by the space of ix or x dayes
with dewti which is callyd in latten dealtea
And is thus mayd Take the roots of hock
and the stick of theim pycked owt and
casten away ij *pounds* of lyne sede fenngreke
of either j *pound* of the rootes of Sqyllts *half a pound*
First weshe clene the roots and stamp
them with lyne sede and fenngreke and the
rootes of Sqilles also then ley it in viij
pynts of water, iiij^{or} daies together and
On the iiij daie put them on the fyer And
make yt boyle to it wax thik, and after strain
yt throughe a strong canvas bagg all hote.
And take of that which is straynd furthe ij *pounds*
and put thereto iiij *pounds* of meat oyle and make
them boyle together to ther be nought seen
of the iuce and then put thereto a pounde
of waxe and as muche butter as semithe to
suffise and turpentine and galbanum and
gume of the yvie tre, of eche one of thees two
vnces And at the last put powder of colophom
and rosen of eche *half a pound*. And when all
thes are molten together put them frome

f. 55r

1234 with] HB. ext. marg. dealtea als | dewtie 1242 and] HA. bot.
marg. on



the fier And when it is could, put yt
 into boxes, and kepe to thy vse This
 oyntment is good for all manner of brisers
 to annoiint them with all and for shrinkinge
 1260 of Synowes and all manner hardnes in
 the fleshe in a cold cause.

EXPLICIT LIBER
 SECUNDUS

WOUNDS WHICHE ARE IN THE OVER
 partie of the shoulders blades, if they be maid with
 Swoorde or any suche weapone, Thus oughte
 thow to help theim Sew the skyn with a nedle
 and a threde and leve a litle hole open of the
 wounde vnsewid by the which the wounde maye
 1270 purge furthe his matter and strewe vpon the
 sewinge pulvis rubens and put a tent in at þe
 hole vnsewid, annoyntid with vnguentum fustum
 and so dight yt euery daie twies to it be
 hole And if the patient were woundid a daie
 or ij before thow looke thereto, then firste wesh
 all the brusid bloode therfro with warme
 wyne and then make the sydes of the wounde
 to blede with some rougue thinge as with rubbing
 1280 of a borage leafe or a leafe de langue de boeff
 or seale skyn so that it blede over all the
 sydes of the wounde, then sew it in manner as is
 aforesaide And if yt be woundid with a
 qnarrell or an arrowe then put in the hole
 a tent annoyntid with swynes greace vnto þe
 sore send furthe matter, and after tent yt
 with vnguentum fustum.

IF THEIR be a wound on the Chyn of the
 neck Firste wete lynet in the white
 of an egg and fill the wound therwith and
 1290 wete a duble cloute in the yolke therof and
 laye ther aboue and let yt rest so to the
 second daie And if any bone afterward
 ought to be taken furthe take yt oute and
 then heale it vp with vnguentum fustum like other

f. 55v



woundes./ /

IF THE bone be broken which is the chyne of the
neck or many manner be hurtid, then
make the patient to stand vpon his fete or
els sit vpon his tale and make him bow his
head downward to his brest and searche
well if ther be any pece of a broken bone in
the wounde and haue yt awaie Then make the
patient lift vp his head right and strew vpon
the bone pulvis rubens and take hede that þe
bones stand even together and in the wound
put lynet wetid in the white of an egge and
after heale it vp as is said of other woundes
And if the Chyne be out of ioint and no
wound therupon then make the patient to
sitt on his ars and thy self shall stande
over him on suche manner that his head be
betwene thy thydes and put thy one hand
on the over most parte of the chyen and so
shalt thow set them together as they ought
to be and lay therupon a plaister restric-
tive maid with the white of an egg and
floure of wheat and powder of bole
armoniak and sprede yt vpon a clothe
and lay it therto where the bone is broken
and let it so rest with the said plaister
vijj daies without removing. And charge þe
patient aboue all things that he bowe not
his head downe to his breast ward /

AND IF THE shoulder be furthe of ioynte
through wounding, Firste cloos the wound
cleane and after take the patient by the
Same Arme and lift his arme vpright thro-
ughe which lifting it shall bolt into ioynt,
and then sew vp the wounde Saving leve
a place wher which the wound may purge
it self, then strew vpon the sewing pulvis

f. 56r

1300

1310

1320

1330

f. 56v

1295 woundes/] HA. bot. marg. IF 1315 restric-] HB. ext. marg.
Restrictyve 1326 the²] HA. bot. marg. Same



rubens and then heale it as is aforesaide
of other woundes And if the shulder be
furthe of ioynt without any wound then
bring yt into ioynt againe with lifting of
the arme as is beforesaid / and when it
is brought into ioynt, annoiint the place with
dewte in laten callyd dealtea And ther-
vpon lay a foxe skyne or a black lambes
euerie daie annoiinting it to yt be hole

1340

IF THE bone of the arme be hurte or
Synew broken or cut therwith, Firste
staunche the blood with pulvis rubens strewid
in the wound and flowre of wheat and þe
white of an egg temperid together and
spredē yt vpon a clothe and ley therpon
and let yt so lie by the space of ij daies
Then vndo the plaister and if thow fynd any
broken pece of a bone haue it awaie and
hele it vp with vnguentum fustum And if the bone
of the arme be broken without any wound
then ought thow to set the partes even to-
gether and lay a plaister restrictyve aboue
with bole armoniak white of an egg and
dust of flowre of a mylne And then splet
the arme and vndo not the spelkes to
vijj daies be past Then vndo yt and take
awaie the plaister and annoiint the arme
Withe dewte and spelte it againe and so

1350

euerie daie once vnto viij daies be passid and thenn
by the grace of god he shalbe hole And if ther be
any Swelling in the arme or shrinking of any
Synow Then bathe the arme and weshe if oft
tymes and to make a fomentacion therto, Take
leves of malowe and branca vrsina sodden in
water and when thowe haist bathid yt with this
fomentacion Then annoiint it with dewte or mar-

f. 57r

1360

1341 THE] *cancel.* if

1356 the^{1]}] HB. ext. *marg.* Restrictyve 1358 arme] HA. bot. *marg.* With

1370

vall which is thus maide Take the leves of
 wylde Sawge woormewood water cresses
 camomyle betonie, sage, mugwoort, malows
 herehound, red nettle, lavander, of eche one
 quarter of a pound of bay leves *half a pound* of the
 flowres of brome *j pound*. buter *iiij pounds* stamp these
 herbes and / knede them with the butter and let
 it stand in a cleane vessell *viiiij daies...*

1380

After streyn them and kepe this oyntment to
 thy vse For it is pretious against all manner
 of stomminge of Senows and shrinking of
 them and for all manner of palseys throughe
 which the Synows ar enseblid, and for all
 manner of colde gowtes and all cold diseases
 if they be annointid therwith against the fyer
 in winter or against the sone in sommer./

1390

WHEN a wound is eveill healid and begin-
 nithe to rott then shalt hele it with this trete
 royall which is pretious and thus maid Take
 of meat oyle *j pound* shepe talow *j pound* waxe two
 vnces pitche *iiij vnces* Savge garthe mynts *and*
 horse mynts leaves of lavage, Saven, anet
 rew of eche one handfull Firste melt *bi*
 waxe shepe talowe and oyle together
 and sethe those herbes brysid therin withe
half a pynt of white wyne the space of *half an howr*
 after streyn yt and then put therto thy pitche
 and melt altogether and kepe it to thy vse
 an other for the same diseas, Take wyld savge
 and tame savge ribwoorte centorie pympernell
 mugwoorte and lange de boeff of eche *half a hand-*
full, stamp all thes small and knede them with
 a pownd of shepe talow and *j pinte* of meate
 oyle molten together and let them be infuse
 together the space of *x daies* After put it on
 the fier and do therto *half a pynt* of white wyne
 and maike it boyle the space of *half an howr*, then
 straine yt throughe a thick canvas bagg and

f. 57v

1400

1368 of] HA. ext. marg. To mayke | Marvall 1385 trete] HB. ext. marg.
 Treat Roiall 1392 withe] HA. bot. marg. *half a*



set it on the fyer again and put therto thre
 vnces of waxe in somer and ij vnces in winter
 And when the waxe is molten put therto
 powder of Olibanum and mastyck and
 colophom of eche j vnce, take it fro the fier
 and stere altogether and when the greate
 hete is of yt put therto turbentyne alwaies
 stering yt well and kepe yt to thy vse, For
 it is precious and wounderfull goode to
 all manner of Roting of wounds for it clensthe
 and drawithe and it norishithe and engendrith
 good fleshe.

IF proud fleshe grow in a wounde for the which
 many Surgeons do vse alome caltionid or
 powder of coperons, but thow shalt vse
 thes powders that is to saie the powder of armo-
 dactulus Or take vnquenshyd lyme iij vnces
 of orpiment j vnce, and put them in a
 pan with water enoughe and boyle them
 well together vnto it begyn to waxe thyck
 then put it in the sone and let it drie to yt
 maie be maid in powder or els vse this
 powder Take armadactulus /an ownce 4 drachms\
 astrologia /an ownce 4 drachms. \ rotunda vertgreace
 /an ownce 4 drachms\ of eche like muche and
 make yt to gether to powder This powder
 will mightelie but not violentlie fret
 awaie dead fleshe and fleshe Cankers also
 An other powder Take vnquenshid lyme
 and menge it with honie in manner of paste
 and after ley it vpon a hote tyell stone
 and make powder therof for this powder
 freatith awaie dede fleshe and slaythe
 cankers and after drieth vp the wound.

FOR THAT Imposteme which is callid herisi-
 pula somtyme coming vpon a wounde
 I shall shew the how to know yt and after

f. 58r

1435 paste] HA. ext. marg. Pulvis cor- | rosius



how to heale yt.

when thou seist a wound cleare and faire
within and yeldithe faire white matter, and
small little white pymoles are therin and the
place of the wound is soft and neshe then shall
thow know for Certein that the wound is in
good state and in waie to be hole. But somtime
thow shalt se woundes home in manner of black
pymoles and the place about the wounde is hard
and ther comithe therfro somwhiles as it
were bloode and water mengid together and
somtime black yellow matter and somtime as it
were black water of a dyke then shalt thow

Vnderstand that the wound is appostemid
with this apposteme callyd herisipula This appo-
steme must be done with colde medcynes

Therfore wete lynet in the Iuice of Sengren
and of stonehore and penywoort and hen-
bain to the which meng the white of an egg
and oyle of Roses and violet and powder
of reade Saunders in manner of a plaister
And if thow may not haue all those Iuices / yet
take so many as thow maie get And when
the apposteme is done awaie and the wound
changid again to his first kynde, then heale
it lyke as other woundes.

OF RESTORINGE of good fleshe in a wounde

The causes whre the fleshe is not sonne restorid
and genderid againe in a wound are thre, one is,
For if ther be a greate quantitie of fleshe
stricken awaie it must nede be longer in rest-
oring, an other is if ther happen to be greate
holones in the wound
which maie happen bicause the
patient is disobedient and will not suffer

1443 yt] *cancel.* When thou seist a wound **1475** wound] *cancel.*
which maie happen bicause in the wounde

1455 thow] HA. bot. marg. vnder **1460** and¹] HB. ext. marg.
Refregidatye

f. 58v

him to dight it as it ought to be the third
 maie happen by misconyng or ignorance of
 1480 the surgeon which things thow shalt helpe in
 this manner Take shepe talow *j pound* colophome
half a pound waxe *iiij vnces* meate oile *half a pynt*
 powder of olibanum mastick and myrr of
 eche *ij vnces* First melt thy shepe talow
 waxe and oyle together and set it from
 the fier and strew ther in powder of Oli-
 banum mastick and frankencence and let
 it boile together and kepe yt to thie vse
 This oyntment is precious for it engendrithe

1490 Fleshe annon and fillithe vp the holes in a wounde
 if ther be no dead flesh therin before And if ther
 be then thow must fret it awaie before thowe
 laie to of this Salve

f. 59r

IF A carbuncle come vpon a wounde by thes
 tokens thow shalt know it, the wound shalbe
 blackishe as it were colorid with a coale
 aboue and the wound with the places about
 shall bren as it were any fier throughe which
 burninge the patient shall suffer muche
 1500 stronge paine and anone thus shall thowe
 help it Annoint the wound and the placis
 aboute with popeleon *euery daie ij or iij vnto*
 all the mallice be put awaie and to yt be
 brought in good temper then heale it vp
 as is said of other woundes./

THE brawne of the arme if yt be cut
 endlong or ouerthwart So that neither bone
 nor synewe be hurte Firste take lynet
 wett in the white of an egg and fill
 1510 the wound therwith and open yt not
 or the Second daie then dight it with
 some heling salve to yt be hole.

IF A man be smitten in the boughte of þe arme
 in suche manner that the brawne and the
 Sinowes be Cut in sunder and throughe
 the woundinge the ioint is lows then I
 giue the counsell not to medle therwith

- for the wound is deadlie. IF the
skyn of the elbowe be greatlie cutt
1520 So that it hing downe Sew it vp and strew
theron pulvis rubens and heale yt vp as other
wounds.
- WHEN the arme is shot throughe with an
arrow or qnarrell First take out the arrow
and tent it on bothe Sydes with larde
and after when ther comithe furthe
faire white matter of the wound the hele
it vp with vnguentum fustum as is said of other
wounds.
- 1530 IF ANY bone of the hand or synew be cut
First strew theron pulvis rubens and
ley lynet aboue weted in the white of an
egg and vndo it not or on the thirde daie
the shalst thou fynd faire matter in the wou-
nde and euery daie strew therupon wher the
bone is cut pulvis rubens and ley aboue
the same some healing salve spredde vpon
lynnett And if any of the bones be broken
then spelt them And if any synew be cut
in sunder sewe thends together with thyck
styches of a neld and strew theron pulvis
rubens and yt shall consounde the synows
wonderfulie together, And if ther be nether
vaine nor synew hurtid then sew the lipps
of the wounde together so that a little hole
be left wherat the wound maie purg
it self, and a tent put in therat and
after heale it vp as is saide of other
woundes
- 1550 IT happenithe many tymes that a lyme is brusid
throughe a stroke or fall or suche other chance
wherthroughe it makithe great swellinge
So that superfluitie of humors fallithe down

f. 59v

f. 60r

1526 after] *cancel.* with **1530** cut] *cancel.* oute

1519 cutt] HA. bot. marg. So 1549 woundes] HA. bot. marg. If

thereto Therfore thou shalt ley to yt riping
plaisters even the same as is said above
in appostemes / And when the matter is
rypid then open yt with a lancet and let
out the matter therof and tent it with
vnguentum viride euerie daie to yt be hole
1560 And if that suche swelling fall in the leggs
then annoit yt with dewte.

IF THE bone of the elbow be furthe of iointe
in this manner thou shalt helpe it. Take
that bone of the Elbowe and set it even as
it ought to be then make one man to holde
the patient by the hand of the same arme
that is oute of iointe and an other to hold
fast at the elbowe and charge them to
draw out the arme straight thy self hold-
1570 inge the bone all the time And when þe
arme is houlden even oute right then
thrust it to the bone be fullie brought
into his proper place and then rowle
a clothe about the elbowe and after spelt
it by the space of vj or viij daies then
take awaie the spelts and annoit it
with dewte

IF THE hand be out of iointe take the
Patient by the arme with the one hand And the
1580 hand that is owt of iointe, with thy other hand
and draw it a litle and lightlie yt shall go
into the ioint againe; and an other syde
put a spelt, v or vi daies together and
after annoit it with a litle dewte, And
if so be any fingers of thy hand be furthe
of iointe thou shalt draw them to ioint
again but not spelt them

OFTIMES yt is sene that members are
febelid through a bone broken or finger
1590 other thinge which feblenes is knownen in this

f. 60v

1559 hole] HA. ext. marg. for swelling | in the leggs 1578 the] HA.
bot. marg. patient



manner, I put case a man had his thighe
broken or some other member and the
bones therof be cointid again nevertheles
the patient hathe muche aking in the
same thighe, and also it is lesser then the
other thighe which feblenes thow shalt help
in this manner First washe the place
enseblid iij or iiij^{or} tymes on the daie with
hote water that this herbes are soden
1600 in / take iij handful of hock leves two
handfull of savge leves and two handfull
of camomyle and cast it into this licour
one quarter of a pound of sewit of metes fete
and stew all thes well together on þe
fier after spreade yt vpon a clothe
and ley to the feble place as hoote
as the seke maie suffer it and let it lye
the space of one monethe

IF SOMETIME it hapenithe a bone is broken
1610 and after it is not ioynid together iustlie
wherthrough the patient felithe gret aking
or els maie not stere the same lyme so well
as he might haue done before or els the
lyme is foulie deformid throughe missetting
therof then shalt thou helpe it thus. yf it
haue bene so a long tyme then shalt thouwe
make a fomentacion with water wherin a
great quantitie of hock leves are soden
and cheken wede and therwith weshe the
1620 place and after plaister the same place
with the said herbes all hote and let them
so lie by the space of ij howres after
thow take awaie the same plaister and
smite the edge of thy hand of the same place
wher it was misioynid and so thow shalt
vndo it againe then set the parte of the
bone iustlie together and spelt yt and
hele it vp as is saide of brekings before

1630 IF THEIR be Canker in the arme which
maie be causid of a wound evill healid

f. 61r



then freat the corrupt matter awaie
 with some ointment or pouder that is
 rehearsid before in eache chapitour of
 Cankers and after heale it vp with *vnguentum*
 viride And if ther be a Canker among
 the synowes of the arme then strew therein
 powder of affodill And if the pouder
 will not stey yt I counsell the not to
 meddle therwith for it is perilous to strew stronge

f. 61v

1640 corrosiues amonges senows because of fretinge
 them in sonder Wherfore it is better to be vn-
 healid then to meddle therwith And if ther be
 a fistule in the arme and the bone corrupt or the
 fleshe corrupt then haue awaie the corruption
 of the bone or of the fleshe and after heale with
vnguentum viride as is beforesaid of cankers *and*
 fistules in the first booke./

A RIBBE sometime is bowed inward wherfore
 thow shall set the patient in a bathe or stewe
 and when he hathe sitten ther an howre then
 take turpentyne and annoint thy hand
 therwith and touche the same place ribb is
 bowid ofte tymes with thy hand and draw it
 forwarde and /so\ shalt thow haue it furthe of
 bought within shorte while And then laie
 therto emplastrum *apostolicum* and let it lie
 therto vnto it be hole And if that any ribbe
 be broken in sunder then laie therto emplaustum
epirocroceum which is thus maide Take safron

1660 piche waxe colophoine of euerie iiiij vnces turpen-
 tine galbanum armoniake mir olibanum mastyk
 of eche j vnce and *a half*, Firste take the gabanum
 and the gum armoniake and breke it In small
 peces and ley it in as muche viniger as will
 cover yt a daie and a night and in the
 morninge set it on the fier vnto the *viniger*
 be almost waistid, then put therto pitche
 waxe colophonie and when it is molten take yt

f. 62r

1638 to] HA. *bot. marg.* meddle

awaie frome the fier then put therto turpentyn
 1670 pouder of mastick olibanum and mir, alwaie
 stering it with a sklyse And when all the powder
 is castene / and as sone as thou maie gether
 it together wring out the water and k/n\ead
 it at the fier annoiting thy hande with oyle de
 baie euermore strewing theron powder of safron
 vnto yt haue drunken vp the weight belonging
 thereto as is aboue rehersid This plaister is
 good for healing of brisid bones and to do away
 aking of them and to fasten and ripe all manner
 1680 of colde impostemes and to hete all manner of
 placis that be infrigidate with any sicknes

A MAN wounded in the harte or in þe longes
 or liver or mydriff or stomake take not to thy
 cure, And if the harte be wounded black bloode
 will come furthe at the wound with greate
 abundance and if the longes be woundid then
 shall the bloode be frothie and the breathe
 shalbe changid / IF the mydriff be woundid
 then shall the vse wunderfull great draughts
 1690 in his breathe drawinge and sone after he
 shalbe dead And if the lyver be hurte Then
 it is easie to know by the place for the
 lyver liethe on the ryght syde ij handfull
 large vnder the arme hole. And if the stom-
 ake be hourt then will the meat come furth
 at the wounde All thes wounds I counsell *and*
 charge the not to meddle with all for they
 be deadlie./

THE MILTE is a serviable member to þe body
 1700 which happenithe somewhate to be hurtid and if þe
 place be largelie woundid where the mylt
 liethe the milt sometime will come furthe
 Then must thowe get the longes of a shepe or a
 swine all hote and laie them vpon the milte, for
 I let the witt when the milt is furthe, Coulde

f. 62v

1676 belonging] HA. ext. marg. Emplastrum | calefanum | et
 maturarium 1698 deadlie/] HA. bot. marg. The

will cause it so to swell that it will not
 in againe at the same hole it came furthe
 and the foresaid thing shall remedie it anon
 And if the wound be hurte in suche manner
 1710 that the milt will not go in againe with the
 foresaid remedie then must thow cut the wound
 more large and after put it in, And if the milte
 be woundid in suche manner that it is almost
 cut in sunder and hingithe but by a litle gobet
 then cut the pece cleane of and cast it awaie
 For phisick saithe that it is possible a man
 to lyve without a milt then better he maie live
 with part of a mylt / When the mylt is
 in sew vp the wound saving a hole in the louer-
 1720 moste parte of the wounde wher thow shall
 put in a tent that the wound maie purg
 it self therat, And after heale it vp as is
 said of other woundes, and if the wound be
 but little then sew it not but tent yt and
 heale yt as is said of other wounds./

IF THE bellie be hurte and bowells in suche
 manner that they be pertid and go furthe and
 the gut be half cut in sunder and the other
 halfe hole, Thus thowe shalt helpe it, Firste
 1730 take a quick beaste as a dogg or cat or shepe and
 all quick cut him abroade at the back and so
 splett it abroade and laie yt vpon the bowell
 for to make them receyve the kyndelie heate
 againe and let the beast lie so longe vpon the
 Bowell vntill they be warme ynoughe, and
 thow shalt haue a litle styck of elder tre the
 lengthe of a large ynche and *a half* and the
 greatnes therof shalbe to the greatnes of the
 gut that is hurtid and take furthe the py-
 the of the same styck and make yt as holowe
 and thyne as thow maie / then put the same
 holowe pipe into the hole where the bowell
 is broken, and gether the sydes of the broken

f. 63r

1718 When] *cancel.* the

bowell together, so that the broken place of þe
bowell lie iust on the myddest of the pipe
then sew the sydes together with a nedle and a
small thredē and beware that thou sew nothing
of the bowell to the foresaid pipe when thou
hast sewid yt vp, then shalt thou have a sponge
with warme water and weshe awaie all þe
filthe that thou fynde theraboute, And
when the bowells are well clensid then
put them into the wounde againe, And
then laie the patient wide open vpon a table
and thou shalt put either of thy hands on
either syde of the patient wombe, and
shall his wombe toward and frowarde
well for to make the gutts to lie in their
placs as they ought to doe, And if the
wound of the wombe be so litle that the guts
maie not be put in againe then thowe muste
Cutt the wounde larger And when the gutts
are in again take hede that the broken gut lie
even against the hole of the wombe so that
thow maie strew vpon yt pulvis rubens vnto
it be perfittlie consowdid together which shalbe
within viij daies, and when it is consowdid
then shalt thou sew the skynnes of the wombe
together that is to saie cyphac myrak and
vtter /wombe\ skyn savinge leve a little hole open
in the wombe skyn wherbie the wounde
maie purge it self and strew vpon the skyn
pulvis rubens and put into the hole a litle
tent and heale yt vp as is said of other wounds

FISTULES CANCERS and Appostemes grow-
inge in the foresaid placs thou shalt help theim
as I haue said aboue, For when suche dis-
eases ar in fleshlie placs they maie be helid
with cutting burninge or freating oyntments
or corrosye powder but beware that

f. 63v

1770 vtter] *cancel.* most **1771** wombe] *cancel.* of

1761 muste] HA. *bot. marg.* cut

thou hurt not the bowells with any of the
 foresaid things, And if the hole of the
 fistulaie be straite then annoint the tent with
vnguentum egyptiacum vnto yt be large ynoughe and
 make the patient at certein tymes to bowe
 him self vpon a or a table board and that
 bowing shall thriste oute the matter the better
 And often put therin *vnguentum ruptorium* as is
 said before of other fistules and that shall
 stea the fistule or the canker and after
 heale it as is said of other woundes./

1790

f. 64r

A Canker in a woman tete or in bothe the
 tetes if the fleshe be hard and black of colour
 all about then shall thow not meddle therwith
 for verilie it is vncurable except yt should
 be cut out by the roote and that maie not be
 bicause it is so full of venies and arteries
 And if it be not hard but onlie about þe neck
 of the pappe and in all other placis it is nesh
 inouge then yt maie be healid with powder
 of affodill or *vnguentum ruptorium* or with cutting
 as I haue said before of other cures./

1800

THERE happenithe sometime Aposteme to
 be in a woman tete, For the pappes of women
 are wounder stronge, and bicause of their
 spongiositie they draw superfluitie of matter to
 them which superfluitie after turnithe to an appo-
 steme and waxith hard and makithe the tetes
 to be bollen and haue muche ake in them, which
 dyseas thow shalt help in this manner First
 laye a maturatyve plaister therto which is
 thus maid Take hock leves and lyllie rootes
 small stampid together and sethe them in mylk
 strewing therin small powder of lynsede
 and boultid flowre of wheat and swynes
 greace sething all together to yt be thik
 as plaister ought to be and ley this plaister

1810

1786 a¹] lac. 1791 woundes/] HA. bot. marg. A 1812 rootes] HA. ext.
 marg. Emplastrum | maturatium



- vnto the pappe, vntill it ripe the matter
then breake the apposteme and after hele it
as is saide of other appostemes withe
tentinge vntill yt be hole./
- 1820
- IF THERE be a wounde in a mans coddes it
shalbe healid in the same manner with sewinge
and other doing as is said in other woundes
before and in the same manner shall thow doe
with the ballocks and if the ballocks go oute
of the skyn put them in again and sew the
skyn together and strew theron pulvis ru-
bens and after heale yt as is said of other
woundes./
- 1830
- WHEN ther is a canker in a mans yearde
and it spredithe abroade over all the member
then paire it clene awaie rownd aboute
with a rasure and after burne yt with a hote
yron then heale yt as is saide before in
other placis / And if a fistula be in the
yarde then tent yt with *vnguentum ruptorium*
and after heale yt vp with other thynges
as is said before / and if ther be small
pymples or bladders then heale yt with
vnguentum album but for the viniger do
thereto water of Roses and in stede of
meat oile put thereto oyle of violet men-
gid withe the white of an egge Or
els Take Iuice of merche and aloes and
white of an egge menge them toge-
ther in manner of an ointment and
therwith annoynte yt./
- 1840
- CYPHAC IS A little skyn which kepit
in the bowells that they fall not down
to the ballock coddes, which skyn oftimes
rechythe furthe, and sometime is brusten,
sometimes more, and sometime lesser, And if
the brustinge therof be but litle then yt is
but wynd which appearithe outward and þe
- 1850
- f. 64v
- f. 65r

1821 hole/] HA. bot. marg. IF



winde makinthe swelling to the quantitie of a
 wallnot or in manner of a hene egg at the moste
 and if the brusting be muche then the bowells
 fall downe to the quantitie of thy one fist
 or bothe. For this brusting if yt be but little
 and of short time and is but a childe then
 thow shalt make a trushing to him in manner
 of a and giue him one manner of
 meat to take the space of ix daies begininge
 in the firste begyninge of the waxing of the
 moone. And if the bursting be muche or of
 long continewnce then thow shalt heale yt
 by cutting and burninge in this manner
 Firste laie the patient makid vpon a boorde
 and take the place wher the gutts do come
 furthe and marke yt with a litle ynke then
 cut the skyn as the marke ledithe the. And
 thow shalt then put thy fingers into the hole
 of the wound and thow shalt fynd a thick
 skyn with a hole therin which is callyd ciphac
 Thow shalt draw that skyn fourthe at the wound
 and gether the broken hole together in manner
 of a purse mowthe then take ij nedles *and* stick
 them crosse wise through a large ynche
 lenethe the mowthe then thow shalt have a great
 threde iij or iiij^{or} sithes well dowbelid and
 twynid and waxid and bynde it hard vnder-
 neathe the nedles as fast as thow maie
 drawe yt and knit thre or foure knotts
 aboue, then shalt thow knit the owter and
 of the skyn to the quantitie of *half an* ynche and
 after burne yt with a hote yron then put
 in the skyn into his place and take hede þat
 the endes of the threde be longe ynoughe
 So that they maie hing out at the wound
 and make the patient go to bedd, And
 then take lynet wet in the white of an
 egg and fill the wound therwith and so
 dight yt *euery* daie twise vntill the threde

f. 65v

1863 a] lac. 1879 ynche] HA. bot. marg. lenethe

will fall awaie and that shalbe within the
space of eight daies. Then shalt thou hele
yt vp with vnguentum fustum or some other
healing salve./

AND IF the ballock stones be wunder greate
and fleshlie either as muche as a great rost
arde, or the one of them, suche diseas is
callid hernia carnosa, which thou shalt heale in
this manner, First vndo the skyn that the
ballocks hingithe in and take out þe bal-
lock then take a knife and cut the fleshe
depe to thow come to the vtter skyn of the
ballock stone and slaye it round aboute and
cast awaie the fleshe therof I let the wit
the fleche will depart therfro as lightlie

as an oxe hyde or shepes hyde will parte frome
the fleshe in slaying And when all the fleshe
therof is had awaie annoiint yt with the yolke
of an egg all about and put it into his
proper place again and sew the vtter skyne
and after heale yt vp as is said of other
woundes./

IF THE stone be in the bleder in this manner
thow shalt know yt, maike the patient to lie
wide open vpon quishions and make him
houlde vp his fete stiff vnto the firmament
and bynde a Rope about them and tie them
vp to a balk and make one to sit vpon the
patient breast / then put two fingers of thy
right hand that is to saie thy longe finger
and thy former, into the patient ars hole
and thrust thy thombe adowne vpon the pa-
tient yarde, Searching with thy fingers
vpwarde so far as thow maie and if thow
fele any hard /round\ thing in the manner of a

dove egg or a litle hen egg trust verilie
that it is a stone, and if yt be a neshe
round gobbet then yt is a pece of fleshe
congelid in the bledder which will not
suffer the patient to mak water some-

f. 66r

1920

1930

tyme./

MANY man often times is lettid to make water bicause the stone fallithe downe in-
to the neck of the bludder and stoppithe
The waie of the water Firste therfore take
1940 a great quantitie of hock leaves with half so muche
of peritorie leaves and strew them in a pott
with water and after laie them in plaister wise
vpon the share as hote as the patient maie
suffer it. And take /parte of it\ pet lyew and cast it
into the yarde with a syring. Then take
a long pyne having a rownd hede and put it
into the yarde furthe right with thy hand þat
the pyne heade go not besyde the stone, and
in this wise shalst thou cut the stone downe
againe into the botome of the bladder./

f. 66v

HERE I SHALL shew the how thou shalt
have the stone furthe of a mans bladder
First thou shall diet the patient with light
meates and litle in quantitie at ones by the
space of two daies before / then the thirde
daie the patient being fasting thou shall
make him lie wyde open and a man vpon
him sittinge in the same manner as is saide
before in knowing the stone. And thowe
shall put thy ij fingers into his ars so far
as thou maie reache them, but first an-
oint them with some oyle or other lycour
wherbie ther maie more easilie enter
Then thrust downe thy thombe of thy other
hand vpon the share to maike the stone fall
downe to thy fingers then shalt thoue thrust
the stone toward the gutter or the yarde and
maike yt go so far into the condyte as thou
Maie And when it will go ferther then cut
the skin of the bludder wher the stone lyethe
with a knife and draw furthe the stone at the
same hole, Then sew yt vp againe and plai-

1960

f. 67r

1970

1938 stoppithe] HA. *bot. marg.* the 1968 thow] HA. *bot. marg.* maie



ster it with pulvis rubens mengid with the
yolke of a egge euerie daie twise to yt be
cosowdid and hole./

IF THE rigg bone be woundid in suche manner
that the marrow come furthe, Then vnder-
take it not for it is deadlie, and if the
marrow appear not, nevertheles some
synows be cutt in sunder Then strew theron
pulvis rubens and fill the wound with lyenet
spred with some healing salve and so dight
yt to yt be hole./

SOMETIME yt happenithe the Reynes to
be woundid, Then I give the counsell not
to meddle therwithe For it lyethe not in
mans cure to heale yt for yt is deadly

EXPLICIT LIBER
TERTIVS

1990 IF THE WHIRLEBONE BE HURTE
with a sworde in suche manner that some of
the bone be smitten awaie and some abyde still
Then if ther be any broken bone in the wound
take yt oute, and after make clene the wound
and sew it vp and strew theron pulvis rub-
ens and hele yt as is said of other woundes.
And if yt be shott with an arrow or darte
and the head abyde still in and cannot lightlie
be gotten oute then cut the fleshe aboute the
head even to the bone and then fasten therupon
a paire of pinsonnes and draw it out and
after heale it as is said of other wounds./

f. 67v

2000 2010 A WOUND with a Sworde happenithe to be
many times in the thighe with hurting of the
bone or not Thow shalt heale it in the same
manner as is said before of woundinge of the
arme, And if it be hurte with an arrow or
qnarrell then thow shalt hele yt vp in the same
manner as I haue beforesaid in heling of the
Arme.



- IF THERE be a wound in the kne maid with a sword
 in lengthe or ouerthwart So that none of þe bones
 be hurt then clene the wound and sew yt vp
 and strew theron pulvis rubens and hele it
 vp as is said of other woundes, And if
 any bone be hurte, Then take the broken pece
 ute and after sew it vp *crosswise* and if ther stick
 an arrow hede or a qnarrell head then draw
 it out sotellie in suche manner as is said before of
 other cures and after heale it vp in the same
 manner./
- OFTENTYMES it happenithe that þe whirlbone
 is out of ioint throughe a fall or throughe to muche
 moystnes And thus thou shalt bring it into ioint
 againe First thou shalt make the patient to lie
 wyde open and an hevie maner sit vpon his boody
 and thou shalt make an other man that is strong
 to take the patient by the same foote of the which
 the hipp is out of ioint and maik him draw with
 all his might the same legg and thy self
 shall ley thy /one\ hand vpon his hipp and thother
 vpon his whirle bone to know when yt is
 right in ioint And when it is right in ioint
 Then take white of egges and bultid floure of
 wheat meng them together and sprede it on
 a clothe and laie it all abroad vpon the ioint
 and haue a thyn narrow boord of ij foote and
 a *half* of lengthe, and set yt on the vtter *parte*
 of the hipp So that half the bord be aboue þe
 whirle bone and half beneth then take a
 long narrow towell and roll yt about the
 thighe and the lower and of the bourde
 and in like manner about the bodie and the over
 end of the boorde and so let it remain bound
 iij daies together the patient lyeng still all
 þat time vpon his bedd. Then vndo the towell
 anoint the place aboue the whirle bone

f. 68r

2030 thy] *cancel.* sef **2042** the²] *cancel.* thighe**2021** manner/] HA. *bot.* marg. Oft

and about with dewte vnto the ake and dis-
eas by passid awaie /

2050 SOMETIME the thighe bone is broken in sonder
with brusting of the fleshe also. Firste ther-
fore maike the legg to be drawen and the
bone set together as yt oughte to be, Then
Cause a man to houlde either of his handes
to either syde of the wounde bringinge the lips
of his wound together then sew it and strewe
theron pulvis rubens / then take ij litle peces
of colophonie and waxe and ley thone to the
one syde of the wound and the other clowt
wheron the waxe and colophon is
spred to thother syde of the wounde and
j ynche space being betwene the cloutes
and the lippes of the wounde / And thow
shall tie the sydes of the clowtes together in
suche manner that thow maie vndo them
when thow likes then splet the thighe all
about saving thow shalt ley no spelt vpon
the wound And dight yt euery daie to
it be hole as is saide of other woundes and
let it be speltid awaie to the wound be
hole./

f. 68v

2060 2070 THE bone of the legg sometime is broken
with hurting also of the fleshe and thow shalt
hele it in the same manner as is sayd in
brusting of the arme and if the bone
of the legg be broken in sunder withoute
hurting of the fleshe then set the bone to-
gether as it ough to be and laie vpon
it a plaister restrictyve, and splent the
legg ix daies or x together, and then
vnspelt yt and then annoint it euery daie
with Dealtea vnto yt be hole./

MALUM MORTUUM is callyd in frenche

f. 69r

2060 colophon] *cancel.* are

2082 hole/] HA. *bot. marg.* malum

and also in englishe a Mormall which is as muche
 as to saie a dead sore, And is so callid as it se-
 mithe bicause (truthe is) it is alwaies full of
 dead fleshe which mormall maie be causid in
 two manners / Of a wound or bresure
 noughtelie heald and so drawing it to a
 festure and frome a fasturing to a mor-
 mall./ or els it comithe of an evill humor
 of flewm or malancolie descending downe
 frome the bodie to the legg throughe freting
 of which matter a sore is causid in the
 legg which grewithe to a mormall. and a
 mormall causyd in the firsst manner is helid
 in this wise / take a pottel of stronge
 tamphouse and put it vpon the fier and
 put thereto a pownd of bale madder and
 maike it sethe vpon a soft fier to half the
 lycour be wasted, Then strein it throughe
 clothe and put it on the fier again, and
 put thereto *half a pound* of alome roche small
 broben and let it stand vpon the fier to
 all be meltid then let it kele and put
 it in a glas to kepe, This water is cal-
 lid water of corall and in latten aqua
 corralli bicause as well of the noblenes
 of yt as also for it hathe a colour like read
 Corall. It ys good to Clens all maner of
 Cankers and festoures and fistules and mormalles
 Therfore washe the mormall euerie daie twies
 with the foresaid water, And when it is clene
 weshid drie it with a lynnен clothe And
 sprede of this oyntment vpon a lynen clothe
 if the sore be not depe And if it be depe
 sprede /it\ vpon lyнет
 Take sulphur *half an vnce*, powder of vert-
 greace *j quarter* of an vnce make them so small
 as thow can in a brasen morter puttinge

f. 69v

2116 depe^{2]}] Irep. And if it be depe **2117** vpon] *cancel.* it **2118** Take] *cancel.* lyнет

2106 cal-] HB. ext. marg. Aqua corall **2110** of] HA. bot. marg. Cank



thereto meat oyle to thow haue putt in j pinte
 and of quick silver *half an vnce* and of swines grec
half a pound menge all well together / and of read
 honie half a quarter of a pinte meng all
 well together in the said morter. Then put
 thereto j quarter of a pownde of emilla can-
 pania tenderlie soden and stampid by it self
 before and men yt well with the foresaid things
 then put thereto j quarter of a pound of rosyn
 and of waxe j *pound* which waxe shalbe molten
 with the foresaid oile and of powder of oliba-
 num j *vnce* and *a half* meng all thes well together
 in a morter to it be sottell and after put it
 in a boxe and kepe it to thy vse This oynt-
 ment is precious for the Canker and to clelse
 all manner of foule wounds and sores that are
 causid of ouermuche moystnes. For it shall drie
 them vp./ And if the mormall be causid of
 the second manner, First thow shalt make a
 Syrup to clens the bodie in this manner.
 Take the rootes of fenell and of parsilie of ra-
 dishe of gladen of astrologia longa and ro-
 tunda of eche *half a handfull* madens heire
 harts young scabious fumiter germander
 medratill of eche. j. *quarter.* of a handfull egre-
 moyn colaver forte / pigle vngle daisie
 Strauburie wises pimpernell, betonie
 tyme heyhane of eche iij *quarters* of a hand-
 full, of Wannes ij handfull, of the rootes
 of madder iij handfull. First weshe the
 rootes clene and the herbes and stampe
 them small and put them to a gallon of good
 wyne or read viniger in an erthen pott
 and let them rest so together the space of
 ij daies and ij nightes Then boile it vpon
 a soft fier to the third parte of the lycour be
 wastid then strein it throughe a clothe *and*
 take hede how much lycour ther is and put
 thereto the third parte of clarified honie and

f. 70r

2140 manner] HA. bot. marg. Take



2160 put it on the fier againe and make it
 boile with a soft fier half j quarter of an
 houre then let it kele and put it into a
 glas, of which thow shalt giue the patient to
 drinke euerie daie iiij sponefull with vj
 sponefull of water fasting in the morning
 This syrup shall clens the sore and suffer
 no corruption abyde therin and yt shall
 cast the matter furthe of the bodie
 that causithe the mormall Also it is
 2170 good for appostemes bredd in the bodie
 And for flewme and Mallancollie and for
 stopping of the lyver and the milt and for
 the stone and for the cowghe and for akinge
 of the raines. And this oyntment shalt thou
 laie therto. Take vnquenshid lyme and weshe
 it with water well and let rest the space
 of an houre then powre out the water and
 washe it again with new water and do as
 thow did with thother and so weshe it vij
 times, Then put yt in the sone to drie, And
 when it is drie take of this powder *half an.*
 vnce / and of litarge of gould iij quarters of an
 vnce of campher ij penie weight of oyle of
 Roses iij vnces of white vineger *half an* vnce grind
 all thes together and make therof an ointm-
 ment in the same manner as thow shoulde
 make vnguentum album of which oyntment thowe
 shalt sprede vpon lynet if the wounde be
 depe And if the wound be not depe sprede
 2190 it vpon a clothe this oyntment is good for
 all manner of breming sores and for all manner
 of moiste tender sores for to drie them vpp
 in short tyme.

THROUGHE Slyding or falling it with a
 stroke the foote is somewhiles brought furth

f. 70v

2179 vij] *cancel.* daies

2170 bodie] HA. *bot. marg.* and 2180 times] HA. *ext. marg.*
 Emplastrum | refrigeridatium | et deficiatium

of ioint and in this manner thou ought to
bring it again. First thou shalt make the
patient to sit vpon his ars and cause a man
to hould the same legg wherof the foote is out
2200 of ioint and thou shalt take the foote
and draw it in again And if it haue bene
longe furthe of ioynt. then take cheken wede
and hock leves and a litle of shepes talowe
and boyl all thes together in water. And
when they are well boylid weshe therwith
the same foote well and after plaister the
same foote with the same herbes all hote and
let yt lie therat the space of ij houres
Then take the plaister awaie and draw
2210 it into ioint. And take this for a generall
rule / that if any lyme haue bene longer furth
of ioint then ij daies. then must thou maike
a fomentacon with the said herbes in the
same manner as is saide here before. And
if it happen that any of the toes be oute of
ioint then set them in ther placas as they
ought to be and after spelt them as they
ought to be viij or ix daies then vndo the
spelts and annoiint the toes with a litle mer-
2220 vall ij daies together.

CANKERS and fistules somtime growen in
the said places and somwhile they frete
the fleshe onelie and somwhile they fret and
corrupt the bone and bicause thes places
are fleshlie and not full of venies or ar-
teries or synowes Therfore we may fret
awaie the cankers with corrosyves and
burninges and cutting. And note that
sometime , the lypes of the Canker on
thes placas spredithe abrode and somwhiles
are strait together And if the lippes be
spredd abroade then cut awaye all
2230

f. 71r

2200 shalts] *cancel.* draw

2232 all] HA. *bot. marg.* round

Rounde about with a sharpe rasure and after
burne it with a hote yron and after plaister it
aboue with the yolk of an egg vnto the fyer
be out therof and hele it after as is said
of other woundes, And if the lippes of
the canker be straite together
then maike a plaister of waxe and sprede
it abroade on the Skyn about the lippes
of the Canker but lay no wax vpon the
lipps then lay abrode vpon the lippes
vnguentum ruptorium and let it remain ther-
on frome morne to even then take yt a-
waie and ley theron the yolk of an egg vnto
the burning be gone then hele it after
as is said of other woundes, And if
any bone be corrupt with the canker
then take yt out if it be corrupt
2240 over all, And if it be corrupt but *parte*
then haue awaie all the corruption ther-
of with paring of some instrument
maid therfore. And if the canker
be black in colour and also a foule stinke
then strew theron pulvis affodili euery
daie to the blacknes and the stinke
be gone. And when the grounde is
clene and hathe no ill savor Then
heale it vp as is saide of other
2250 sores before./

TO MAIKE Antioche royall. Take spyknell
centorie, burnet, origane, herbe robert, scabious
ribwoort, brome, wena, vervain, egremonie
matfelon, bugle, wylde sage, mugwoort, pu-
lione mountain, brownwoort, betonie, malows
playntain, pulial royall, pegle, fumiterre of
munde, dayse, calaminte, prymrose, melle-
foyle, herbe John, strawberre wise, saxifrage

f. 71v

f. 72r

2238 straite] *rep.* be strait

2260 before/] HA. *bot. marg.* To **2261** spyknell] HB. *ext. marg.*
Antioch Roiall

walwort, dandelyon, gradei, maior gracia
 2270 dei minor, sanicle, /smallage\, herb yve, red fenell violet, bryrie croppes, valeriane, wylde tansey, tryfoyll, quint foyle, red nettle comfrey wilde tasel, neparte, sawge, wormewood harehounde, dytaine, oculus parpi a penny weight of them bothe, emilla campana, roste /rose\ marie, lavander, rew, celidonie, ysope, goldes tamsey, lange de boeff croppes of eche one of thes *half a* handfull, and of avaunse the weight of half the foresaid herbes and of the bale
 2280 madder as muche as of avaunce and all the foresaide herbes weight. First wesh clene all thy herbes then braie them in a morter after put on the fier in a great pane well skowrid and put thereto ij gallons of white wyne with a pottell of clean well water and let all boyle together with a softe fier then let it kele and strain yt and put it on the fier a-
 2290 gaine and put therto a gallon of clarified honie and let them boyle together casting Therto the white of xij egges and when it is boylid well let it runne through a cloathe and when it is cold put it into a vessell of pewder or els a glas or els it wyll penetrate and rune throughe. This Drynk is callyd Antioche because yt was first found in the citie of An-
 tioche. yt is good and precious for all manner of woundes that any man
 2300 hathe and that without any Salve to hele him. Therfore thow shalt take iij leves of red cole and ley one vpon an other aboue vpon the wound and remove it as often in the daie as thow would an other salve with new leves and giue þe patient of this drink to drinke twise euerie daie in this manner. Take iiij^{or} spone-

f. 72v

2290 casting] HA. *bot. marg.* therto

full of water make it skalding hote
 then put it in a cupp and put thereto ij
 2310 sponefull of Antioche and stere all to-
 gether and let him drink./

TO MAKE a precious medcyne to
 hele all manner of woundes without
 plaister or any other salve but a wort
 leef. In May for all the year for
 then is best gathering of herbes, take
 Wann, bale madder mowseare tansey
 the croppes of the red nettell the
 cropps of read hempe, vngle pegle sani-
 2320 cle ribwoort, brown woort cowslopp
 Canfrey, dasey, bytayn, Rudwoort pla-
 yntain, fumiterre, wild sawge egrymoin
 pimpernell puliole mountain puliall roiall
 scabious, ground yvie, rew, gradei, mor-
 sus diaboli, violet, matfelon, cowselopp
 prymrose terfoyle, eufrace, medewort
 spycknell flowres of solsequelle, flowres
 of woodbynde, astrologia rotunda care-
 awaie, allya, chekenmete, rose marie
 2330 herbewater, herbe Iohn, endyve, herts
 tounge, sorell, hertwoort, herb Robert
 Lavache, camomyle, time, parselie, borage
 wormewoode. Take thes herbes and
 stamp them with clene butter and propor-
 tion them in this manner, take as
 muche avaunce as of all the other herbs
 and take of the rootes of madder
 half so muche as the weight of avaunce
 and madder by thre partes / And of
 2340 the other herbes moste shalbe the mouse
 eare bugle pegle and sanicle and of all
 the other herbes shalbe like muche
 First thow shalt weshe clene thy herbes
 then stamp them, then knede them with
 clene clarified butter and let it rest
 so all together in a clene vessell well
 coverid that no filthe come therat
 nor no venomous beast by the space

f. 73r



Off five daies, and looke þat thowe
have half so muche butter clarified in
weight as are the herbes. Then put it on
a soft fier and make yt to boyle half an
howre, Then strain yt through a clene
clothe of canvas into a clene skourid
pane. Then put it on the fier againe
and make yt boyle well and haue away
all the scome therof. then take it from
the fier, And when it is could put it
into a clene boxe, and kepe yt to thy
vse, but a vessell of earthe is best to
kepe yt in and gyve of this as muche as
a wall nutt twise in the daie by it self
or els take the foresaid medcyne and
melt yt with iij sponefull of water and
give the patient to drinke fastinge in
the morninge and last at even when he
goithe to bedd./

2350

2360

f. 73v

FINIS HUIUS
LIBRI



- 2370 THE WOORDES OF THE AUCTOR f. 74r
 DISPISE NOT THIS LITTLE BOOKE ALL
 BE IT I HAUE NOT SET IT FURTHE IN GO-
 ODLIE SPECHE, FOR I LET THE WITT I HA-
 VE SPOKEN OF NOTHINGE HERM BUT
 SUCHE THINGS WICHE SHALL TURNE
 THE TO GREAT PRASICTHE AND PROFITT
 WHERFORE BE A BESIC REDER THEROF AND
 PRINT IT IN THY MINDE./
- 2380 Take doves foote an herb. Arkangell. Ivi with
 the buryes. young reed brier topps *and* leavs.
 white roses their leaves and buddes reed
 sawge Celandyne and woodbind and cut *and*
 cropp. all thes in white wyne and cla-
 rified honye then break into yt alome
 glasse and a lytill powder of Aloyes
 hepatica / And distill all thes sotlye to-
 gether in a lymbeck. kepe this watter.
 close for yt will kyll. the kanker yf it
 be dalye wesshed. therwith.
- 2390 Take the sirupp of madenhear and of
 ysopp. And take a lykores still stroped
 and dip into the said sirupp and chew
 it and dipp againe vse this before meat
 and last at night and yt will breek
 the coold and stopping in the brest
- 2400 TO KILL A RINGE WORME SCABBE f. 74v
 crewlls or any suche other prowde felon
 that yekethe and waterithe Take brim-
 stone vive, clowes and maces braie þem
 small then blend yt with black sope
 and swines greace and annoiint the place
 therwith and yt shall drie and heale yt
 verie well and perfectlie./ *probatum est.*/
- FOR THE Pestilence take eggs and
 weshe them clene and drie them againe

2382 and^{3]}] HB. *ext. marg.* Canker 2392 chew] HB. *ext. marg.* Coold
 or stopping | in the brest or | pursyvenes

then breake them in two in the middes and
do with the meat therof what thow will
then take the shells whilles they be grene
and pyke furthe the ryne clene which
is within them and then drie the stoones
on a hote tile stone that they may be
Brayed to powder, and except ye do
yt when they are grene the Ryne
will not parte streine the shells take of
the powder of the shells ij vnces boll
armoniak preparat *half an vnce*, sulphur j
vnce and a half of good lycores. v. drames
and make all in powder and when ye
will give to any þat is infectid, Take
2410 half a sponefull of good triakle and
meng of this powder therwith vnto
þe spone be full of them bothe then give
it þe sick with warme ale or with white
wine next with rose water even so
Some as he fallithe syck for the soner
the better. This medcyne was highe-
lie prasid by the phisician that prac-
tisid the same seing he could never see
any so good, And for ordering of the
pestilein bothe Vide *supra* so: xv and
2420 who so euer hathe the pestilenc let hym
be kept warme and close or in his
bed, For wynde raine or colde eyr
is redie dethe to him that hathe the
pestilenc meshid or Ague. And if
the sicke happen to vomite the sayde
drinke, then weshe his mouthe with
the said wine And let him drynk
again and so half a dozen times vnto
2430 he do hould it./

f. 75r

A pretious water if thowe
wilt vse it./

2412 do] rep. do

2424 so] HA. bot. marg. some



TAKE a handfull of weybrode one
 handfull of housleke. of Rose merie
 Isope and sawge. j. handfull, put those
 herbes in a quarte of runninge water
 and a quarte of white wine with vj
 blanchid almonnes well beten sethe all
 together to tyme half thy lycour be soden
 awaie then clens thy lycour fro thy herbe
 throughe a clothe but wring not the
 Clothe. And when the great hete is oute
 put thereto one dramme of camphere, which
 thow shalt have at the poticaries. Put this
 water into a glasse and kepe it for yt is
 a verie good water to washe therwith any
 sore and namelie a sore legg and will
 heale yt without any other salve, if the
 sore be not verie olde, Thow shalte
 woorke with it in this manner. put this
 water in a saucer and with a Fether
 washe this sore, and when it is well
 washid depe a litle lynt in water, and
 put yt on the sore and then Cover it with
 a hoke leaf or a dokan leafe or a keall
 leafe and then lap it about with a Cloathe
 and thus do twise on the daie./ *probatum est.*/

2450

f. 75v

FOR THE Pestilence: take half a handfull
 rew a handfull marygold a handfull
 feverfew a handfull sorell a handfull
 burnet, half a handfull dragons, the
 top in summer the roote in wynter wesh
 them in runinge water, put them in
 an earthen pot with a pottell of freshe
 runing water let them sethe soberlie
 to the half be consumid then take it fro
 the fier and let stand to yt be almost
 coulde then, strein it into a feir gles
 and kepe yt verie close. vse therof
 morne and even and when nede is

2460

2470

2480

2451 the] HA. *bot. marg.* Clothe

after. And if it be to bitter Delaye
 yt with suger Candie, And if it be taken
 before the purples breake furth, ther is
 no dowt by the grace of god but yt shall
 mend any maner woman or childe / *probatum*
 est. vide infra folio vj^{to} ad hoc signum.

f. 76r

A pretious water for sore eies or for
 him that hathe lost his sight aloughue it be
 by the space of. x. yeres, if ther be
 any possibilitie therin So that the med-
 cyne be vsed. xl. daies together. Take
 smallage, reu fynkells, vervine egre-
 monie, scabies Wannie houndestoung
 Ewfrace pympernell, sawge, still all thes
 together with a little vryne of a man
 Childe, v grames of Frankensence and
 Everie night put one drop in the sore
 even. / *probatum* est / .

TO CLEARE Eies which ar not sore. Take

rew, vervine, rede roses celidonie
 still them and this water is goodd./

FOR THE fever quotidian, tertian or
 quartane Take mouseare camamile
 bursa pastoris rede nettell woorme-
 wood chervill of euerie like muche stampe þem
 and drinke þe Iuice therof in ale xij daies
 / *probatum* est /

FOR any evill in the stomake. Take the iuce
 of Smallage and drinke yt. / *probatum* est. /

f. 76v

FOR A Vehement Fever or ague take feir
 whey clarified and barley well stepid and
 huskid / buglos / Sicurie / Endive and lico-
 res *an ounce* all well brusid and soden in
 an earthen pan, and let thy whey be

2488 be] HC. ext. marg. Sore Eyes vid: postea | fol: 95: 96 ant: 41: 42:
 | postea 85. 2493 houndestoung] HC. ext. marg. betonie
 2499 Take] HC. ext. marg. to clear Eyes not sore 2507 /²] HA. bot.
 marg. For

clarified with the white of an egg.
 And after yt is streynid gyve the
 patient therof to drinke even and mo-
 row and an houre before dynner. *probatum est /*

FOR THE Ciatica or other colde malady

2520 take leves of bay tre and new hors dong
 boyle them in stale pys and maike a
 plaister therof and within iij tymes the
 patient shall mend therof if yt be
 any thing curable.

FOR A MAN THAT IS thursten first pur-
 ge him with easie lapis and let him kepe
 strait diet to the matter be vp into
 his bodie then bolster yt verie suerlie
 to kepe it vp with a litle bolster so brode

2530 as thy hand or broder as nede re-
 quirithe. Then take the iuice of polipodin
 which is fern growing vpon an oke tree
 Iuce of dasies comfrey / avance, betony
 in winter rootes and all in sommer
 either at thy pleasure of euerie a
 handfull streynid and well stampid with
 a quarte of good stale ale let him drink
 therof ix daies at morne cold and last at
 even blood warme and kepe sklender diet

2540 and by the grace of god he shalbe hole *probatum est /* Or els take rede wyne a pynt
 half a pynte of sand hony a handfull of woor-
 mewood a handfull of rew well brusid a
 penyworth comyne well brusid put thereto
 and thick them in a pann with as muche
 bean flowre well bultid and so make a
 plaister therof in a lynnен pockit. And
 ley it to so hote as the patient may suffer
 even and morn And within iiij^{or} daies þe
 2550 hole of the wound shall seme larger
 and the matter which did hing furthe shall
 be sowple and easie to be put vp. When

f. 77r

2535 a] HA. *ext. marg.* hand

it is vp trus yt suerlie with a cod. And
glie this drynke folowing. Take a pint
of stall ale / a quantitiue of okefern callid
polipodium the rots and as muche roots
of callid druff it bearithe a read
flowre and is grene in winter and somer
as muche mowsyer rote and all./ as
muche avaunce rote and all well
2560 weshid stampid and streynid with þe said
ale let the patient drink therof first
at morne cold and last at even warme
and keping good and sklender diet with
in twelve wekes he shalbe hole without
fale by the grace of god./

TO STOPPE the blodie flix. Take a hand-
full of beans / proche them on a tyle stone
pyke of the hulles braie them in a morter
2570 to fyne powder, Sethe that pouder in
a pynte of rede wyne and synamond
to they be as thic as leche then so sone
as yt is could sklyce it and ley the
sklyces on a sawcer before the fier and
when they are warme let the patient
eat them first and last./

TO STOP all manner flix blode or not
Takke a quartron of almonds blanchid *an ounce*
of fyne chalk. j. quartron of stones of the
2580 read hawes which grew on white thorn
ijij spone full of grots of oten meale. j
ounce of pepper, *half an vnce* of grains braie
all thes together boyl all this a litle in
a pot with a quarte of wine callid red
raspise. Gyve the patient the third
parte therof to drinke so warme
as he maie and let him go to his na-
kid bedd. and Cover him warme
and tarie with him, and if he list to
drinke gyve him of the same wyn

f. 77v

2557 of] lac. 2566 god/] HA. bot. marg. To



and so let him drink therof even and
morn to he be hole, / optima meditina /.

A goode suppositorie Take a spon-
full of honye and put it on the fier
In a laten laddell or a litle pan and
boyle yt to yt wax thik Then take a
litle freshe grece and annoint a tren-
cher therwith and throw a litill salt ther-
on then take furthe thy honie while it
is warme and vpon that trencher
maike therof four rolls as long but not
so big as thy litle finger. And let the
patient or for him thrust one of the
rolles over the head in his fundament
depe and leve it ther vnto the patient
go to stole, And so the second and the
thirde, and so the fourthe and euerie
one with a convenient leysure,
betwene, will cause him to haue a
sege, or take a litle of the yolk of
an egg, blend it well with salt make
therof a button in a litle cloute some-
what bigger then a great hasill nut
bynd it hard with a dowble threde
and thrust yt into the patient funda-
ment, and some after he shall have
a good sege, and on the morn do
suche like and he shall haue an other
and this shall do any seke man that is
bound in his bodie great ease let
the threde bring furthe of the funda-
ment þat thou maie pull out þe pellet
againe after ij or iij houres if it sped
not but I never knew but it sped
well./

TO maike a man slepe, Take sede
of lettice and sethe it in running water

f. 78r

2600

2610

2620

f. 78v

2608 leysure] *cancel.* and,

2594 fier] HA. *bot. marg.* in **2625** well/] HA. *bot. marg.* To



and let him drinke therof last a night.

FOR burninge or skalding Take the
rootes of lylles and bruse them well
in a morter and meddle with it boares
greace or freshe larde, hennes donge
and the ynner barke of burtre, Frie
it in a pan, strein yt through a
Clothe and anoint the sore with a
fedder, or take shepe tryddles and
blend them well with creame of
mylke, then strein yt and therwith
with a fether annoynct the burnid or
scaldid place ij or iij in a daie./

FOR olde Sores to clebs them to take
awaie þe stinche and to heale them, Take
hony white viniger and white wyne, of
euerie one a pinte, boyle them well and
stirr them well, then put therto
ij vnces of vertgreace, braide to fyne
powder, Then boyle yt to half the ly-
coure be waistid, then take it down
and if yt be hard then laie yt to the
sore on a lynn clothe, and if yt be
soft then laie yt on with laint, And if
yt woorke over sore delaie yt with oyle
of Roses

FOR freshe woundes and clean sores to
heale them hastelie, Take frankensence
as mucbe of fyne Rosyn by it self grinde yt
on a stone and even in the grinding put ther-
to a lytle oyle of roses and so vnto yt be a
good softe ointment, and lay it on the
wounde or sore with lynt./

FOR heate in a sore, Take malows house-
leke sorell marigouldes the iuice of them
all, as mucbe viniger as of all the Iuce
wete a clothe therin and ley it to the sore

f. 79r

2645 them] *cancel.* wyn



and euer shift yt as yt driethe *probatum est* /
 FOR canker, fistula, old sore or new, or
 for woundes a provid medcyne, Take
 ij gallons of Runinge water, half a
 peck of ashes of grene eshewood make
 therof a gallon of lee / put therto a
 gallon of Tannar owse, a pounde of ro-
 che alome and a pound of good madder
 sethe all thes to almoste a gallon in a good
 bigg pott that will hould twise so muche
 lycour for rising over and stir yt well
 for running over and when yt is boylid
 iij or iiij^{or} houres, strein yt through a new
 Clothe of canvas or harden and when
 ye will vse yt wete a lynnен Clothe
 therin clene washid withoute sope or
 els lynt and laie to the sore./

2670

FOR THE STONE or strangulion well
 previd Take parselie, saxifrage *peritorie*
 of the wall pelymointaine otherwise
 callyd wylde tyme and vnsett tyme
 of euerie a handfull weshe them and
 stringe them in a clothe, put them in an
 earthen pott with a quarte of malvesey
 boile it to the half be consumid and
 when the Payne comithe drinke of
 this a good draught blode warme
 Or take parselie sede broome sede
 grommell sede, Annes sede, plantain
 sede smallege sede of eche j quarter
 of an vnce nutmiggs half an vnce
 fyne suger iiij vnces bete all toge-
 ther in a morter verie small then
 skarce yt and drinke this powder
 even and morrow iij daies in a weke
 warme with wine or any other drink
 the quantitie of powder aboute a
 great hassill nut full, And if the

2680

f. 79v

2690

2684 otherwise] HA. *bot. marg.* callid



- pain be verie sore take the ointme-
nt callid Deathea and oile of ro-
ses half an vnce of eche and ann-
oint *your* syde where the pain is
against the fier so hote as thou can
suffer yt and that will cause þe
stone to void shortlie Then take
2710 a handfull of *paritorie* and an-
other of madenheir, a quarte of
white wyne, boyle them together
strein them and take a good draught
of the wyne hote and put of the
sayde powder therin And it shall
Incontinentlie help man or wooman Iff
ye cannot haue mayden heare then take
paritorie alone And this is moste soueraign
medcyne / *probatum est.*/ f. 80r
- 2720 FOR the yealowe Iawnes, take rede dock
roots weshe them clene and lightlie scrape
of the vpper rynde and take the softe
which folowithe and when thou commist to
the harde core of the roote cast that
awaie And put a handfull of the
soft of the roote in a gallon pott of
new ale when the barme is new put
to so that all maie woorke together and
put the rootes in a kell of thredre toge-
ther or els in a cypres Clothe bicause
2730 the ale maie the better take the vertue
of yt, but let the cipres or kell be clene
washid without sope: (It is better to bind
yt fast with a thredre and then hing it
in the pott of the ale, And when it is
ij or iij daies olde let the patient
drinke therof, This medcyne hathe he-
lid when many other with counsell of doc-
touris of phisick hathe falid, And if ye

2725 put] *cancel.* not

2715 shall] HA. *bot. marg.* incon

- 2740 take the ynner barke of barberie tre
with all yt shalbe the beter./
- A Spetiall medcyne or ointment for
the great pocks, Take j *pound* of bores
greace ij vnces of fyne frankensence
beten to fyne powder ij vnces of ceruse
otherwise callid white leade bett all
together in a morter a good space
Then put therto ij vnces of argentum
vinum well and suerlie slaine, then bete
all together by the space of ij houres
Then take therof ij vnces and put ther-
to a quarter of an vnce of sanguis
draconis and as muche of mastick well
powderid and beate it vntill yt be
a faire reade ointment, Then take þe
seke persone and before a great fier
annoint him euerie ioint so that the
oyntment do drinke in, then maike
a plaister of lynt and laie theron the
same rede oyntment, And putte the
sore and se thow do sliae the sore first
with grene coperas burnid, then laie þe
sick in his bed with clothes ynoughe on
him that he maie sweat the space of
iiij^{or} howres after his dressing and
so annoint him vj daies but let him
kepe his bed ix daies and at xi daies
end let him rise and walke aboute
in his chamber to tyme his sores be
clene hole / then let him have a good
purgation and that done go abrode ij
daies wher he will so that he kepe good
rule and good diet, But within ij
daies that he is laid his mouthe
wilbe sore within and rune of water /For that\
- Take a handfull of ysopp a handfull
of rew another of Sawge iij spone-
full of honie a goblet full of white
wine a pottell of faire water
boile all together to the half be

f. 80v



waistid and then with all warme weshe
his mouthe and by the grace of god he shall
be hole. *probatum est.*/

f. 81r

A mans pintill sometyme wilbe sore within
so muche that if thou storst the end therof
thow shalt se rotten white ware come
furthe the cause therof is a mans oun
nature not well expulsid, but parte
dothe tarie at the knot of the yarde
and Rankelithe and if yt be so longe
it will perce a hole throughe and will
appear aboue vnder the foreskyn Take
coperons burnid as in the next medcyne
before. put therof a litle in new ale or
new drink and stirr yt to yt be molten
then take a squirt maid of a small gose
or hen pen thrust this pen into the pintill
end and squirt in the drink. j. or. ij. in
the daie and within ij or thre daies
yt shalbe hole. And if the head of the
pintill be flushid which happenithe some
tyme throughe ylnes of his owne na-
ture sometyme throughe ylnes of
the womans nature weshe yt with
the saide drinke and yt shalbe
hole And if the hipps of a woomans
Member happen to be flushid take a
Lynnen clothe and wete them with
the said drinke / *probatum est.*/

2790

2800

f. 81v

2810

For priking of a nedle pyne or thorne
if the hole be closid vp. Take fair bultid
flowre of wheat. temper it with wyne
boyle them well to gether to yt be plaister
lyke then ley it to the sore so hote as
ye maye suffer yt. And it shall
open the hole draw out the fylthe and
cease the aking and heale yt.

For the dropsey take ij gallons of Fyne

2808 and] *rep.* and



ale and a porcion of green broome, boile
 2820 them to a gallon, and let hym drinke no
 other drinke to he be hole. Also For
 the dropsey vse to eat and drinke
 new milk./

FOR THE Megryme or forehede wark. Take
 the white of dove doung musterd sede
 and pepper. bray them all together
 and in braying temper yt with good
 stronge viniger vntill it be plaister like
 sprede yt on a clothe leye it to the
 forehead and temples but let ij fold
 of lyne clothe be between thy forehead
 and it For yt will burne and skalder.
 2830 Do this ij or iij tymes together on plaster
 after an other. yt is somewhat painfull
 but yt will make the hole by the grace
 of god. probatum est.

f. 82r

For swelling brussing or ache Take
 leaves of the read Rose and viniger and
 cromes of the sowrest bread that thow
 can get, braye yt together and maik
 yt plaister like lay yt to the sore and
 yt shall sone be hole. probatum est.

For the ache or bolning of iointes. Take
 read nettle croppes, burtre croppes and
 croppes of celidonie, even porcions bray
 them together and putte may butter
 braie yt to it be plaister like, ley to
 the sore probatum est./

For teters Take ij handfull of vnsle-
 kyd lyme put it in a quart of fair
 running water ij daies then take. j. vnce
 of sal armoniack at the poticarie bray
 it in a morter strain *half a* pynt of the
 said water into yt and labor yt with

2819 ale] HB. *ext. marg.* þe grene springs of | burtrie the grene bark |
 strapped of *and* elecampana | Reed mync



the pestell to yt be fair blew then
 take yt vp into a vessell and vse it
 as ye nede yt and annoint the teter
 therwith. *probatum est.*/

f. 82v

To maike a seerclothe for wrinche or ache
 2860 take a quarter of a pownd of new wax
 v. sponnefull of oyle olive thre rases of
 gynger well parid and gratid melt
 the waxe vpon a chafing dishe putto
 the oyle and let them boyle then put in
 thy gynger and an old lyne clothe about
 vj days the yarde so bigg as thou wilt haue
 the seerclothe and depe it well in the
 lycour warme yt hote and lay it to the
 patient and roule clothes about it to
 2870 kepe yt warme. within xxiiij howres
 yt shall mend him./

For ould sore or new take englishe waxe
 Frankencense rosen or euery one like
 muche, break them small melt theim
 together and then strein them into a clene
 vessell Then take orpyne mullayne
 rosecampie valerian mowseare milliot
 rybgras and brawood cut them and
 bruse them a litle then Frye them
 in freshe may butter moderatlie and
 after strein them and then blend
 them with the foresaid gommes then
 Frie yt well all together and then
 Put in as muche turpentyne as thou
 did of waxe and stere well altogether
 and put it in boxes to kepe and looke
 thou take like muche of euerie herbe and
 like muche of thy herbes and gomes
 so nere as thou cann iudge yt by thyn

f. 83r

2881 blend] *rep.* then blend

2856 it] HA. *bot. marg.* as **2874** muche] HB. *ext. marg.* mullein is an
 herb | growing lyke a | torch in a long *and* | fast lef and yellow flowred |
 vnguentum | viride



2890 eye. And when thow will onimpye
 yt spred yt on a lynn clothe and ley
 yt to the sore. this trete hathe
 healid an ould sore legg when many
 other surgians and medcyns hathe
 falid./

For a man that hathe lost his hering
 Take the gall of a young pigg whiles
 yt is warme and put it into his eare
 an other *provid* better take the ynner
 barke of a walnet tre stamp it strein
 yt and put the iuce therof in his ear
 whiles it is freshe and new and
 let him lie on his contrarie syde yt
 maie better rune into his ear./

For the Megryme take an herbe
 callid chervell rye bread bay salt
 and viniger stamp them and ley them
 to the noddle of the head behinde.

For a sore mowthe. Take woodbynde
 marigoulds sage rosemarie a quantitie of
 alome and a quantitie of honie seithe them
 moderatlie in ould ale or water Then
 strein yt through a clothe and therwith
 annott thy mowthe with a fether or
 washe it softelie with a lynn cloathe
 and if thow rub it vntill it blede it
 is never the woorse but better../

For the pestilenc a *preservatyve*. taise
 a handfull of rew, a handfull of sage
 of vertew, a handfull of breer leves
 that bearithe black brears a handfull
 of Elder tree leves, stamp them together
 and strein them through a clothe with
 a quarte of white wyne, And putt
 thereto a good quantitie of powder of

2903 yt] rep. it

2909 woodbynde] HA. bot. marg. Mary

f. 83v

2910

gynger drink a good spoonfull *euery*
 daie and the first daie ye shalbe savid
 for *xxiiij^{or}*. hours and if ye take yt
ix daies ye shalbe save for a hole yere
 2930 And if ye be infectid before ye drink
 yt then take a spoonfull of water of
 Scabies as muche of water of betonye
 and a good quantitie of treacle of geen
 and drink yt. For that shall dryve
 it frome the hart And if the byle do
 appere take elder tre leves bryere
 Lever and mustard sede and stampe
 them alltogether lay them to the sore
 and that will bothe draw and heale by the
 2940 grace of god.

f. 84r

An other aloes cicotryne, myr, bole armo-
 Niak, safrone and calamus aromaticus,
 of eche a half pennywoorthe maike
 them together in powder and menge
 them with *vij* sponefull of triacle and
vj sponefull of clarified honye, kepe
 yt in a close boxe and eat therof
 morne and even as muche as a bean
euery tyme when the plague rayneth./

2950 FOR THE STONE taise cow milk and goat milk
 therof maik a possett with white wyne
 and to a good drawght of that put the
 iuce of *xxx^{ti}* leves of tyme go by the
 ground and drink therof even and
 morne. For a flint stone laid in that
 drink all night wilbe consumid to
 powder by the morne. And if thow
 haue no goat milk yet prove yt
 with cow milk./

2960 TO HIM THAT is infected with the pestilenc
 after you haue gyven him the drinke
 mentionid so: *vij* imediate preceden then
 by a convenient space after which may
 be as I suppose thre or *iiij^{or}* howres
 gyve him this powder folowing which

f. 84v

shall cause him to sweate Recipe

[LATIN]

And if he

f. 85r

were hard of sweat I wold sethe
barley in water and all hote laye
it in a lynnен pockit at his fete
so hote as is convenient to maike
him sweat. And in no wise let hym
put his head in the bed to sweat for
his owne breathe is very poyson And
if I did perceyve yt to nede I wold
also ley a pocket of hote barle againste
his hert but so that yt should not
touche him not his fete.

Another for the same take a croppe of

sage woormewood ana herbe of grace ana
a hard onyon rosted half a penniworthe
of triacle i *pound* of sack, and beat the herbes
and onyons all together and strein the
triacle and all the said herbes into þe
sack and drink yt blood warme
and so let the patient take a sweat.
probatum est./

f. 85v

Against an humour discending to the
eies. Take a good quantitie of flaxe
als lyme. sethe yt in a quantitie of
malvesey vpon a chafing dishe to it
be almoste waistid. then plaister
the flaxe to thy browes and temples
vpon thy forehead so warme as thow
can suffer yt in a lynnен cloathe
and let the clothe be betwene thy
browes and the flaxe. *probatum est./*

For the palace of the mowthe fallen

Take an vnce of clowes and pepper
small beten and strew them on the

2982 penniworthe] HA. *bot. marg.* of

fore parte of thy head so that the powder
as muche as may be go throughe
thy here to thy scalpp and so
let it lie probatum est.

For the stone taise iuice of an herbe
whiche growithe in corne feildes and
divers other places / and in may and
in Iune it hathe verie little flowres
of purple colour and hathe tersells
hinging the sharp ends downward like
thre or iiiij^{or} pynnes together knoppid at
the vpper end and some of them prickid
vpward, take of the iuce therof in somer
and of the powder therof in winter
and drink with ale probatum est. It
growithe about a foot highe the leafe
partlie like a tansey leaf./

For the fever tertian or quartan take
half a pinte of seck two sponefull of
musterd one sponefull of pepper not
ouer small beten and the white of a
new laid egg well swonged to oyle
and put all those together and drink
yt and lye and sweat by the space
of fyve houres iiij or iiiij^{or} tymes euery
tyme imediatlie before your fitt begyne
Also when thy fit commithe drinke the
iuice of Rosemarie and yt will
maik the hole incontinent Also drink
the iuice of Centorie stampid and
streynid withe wyne before thy fitt
and yt will cause it to be no fitt./

A Vomitt

The flowres of burtre stampid and
mixid with honie makinthe a good and

f. 86r

3010

f. 86v

3020

3030

3002 powder] cancel. be **3004** thy²] cancel. fleshe

3006 herbe] HA. bot. marg. which **3033** fitt/] HA. bot. marg.
Vnguentum

an easie vomitt. the receipt is a vnce
 Take Iuce of burtre barke stampid
 and streynd with water to the quan-
 tie of an egg shelfull or more
 3040 drunken dothe the same./

For the scabe in the syde Taike
 viniger, reddes ynyons / rose leves
 or leves of a rose cake, boyle them
 well together lay them hote to thy bare
 syde after manner of a plaster do so
 dyverse tymes. vide infera seo:

TO STOPPE a womans flewre Taike the
 roots and leavs of dasyes ortherwise

3050 Callid lannworts Stampe them and strein theim
 with ould ayl, of that maik a posset and let
 her drynk that drink bloode warme to
 she be hole taik ix. at euerye tyme to maik
 your posset. Or taik shepe trindles boyle
 them in wyne viniger or good aisle and ley
 a plaister to the navell and Reignes./

f. 87r

FOR YEKING OR SCABBES of the bodye taike
 grene ashe chatts and drie them in an oven
 when the bread is new taken furthe and then

3060 put them on a hote herthe stone so that at
 lenghthe the fyre may taik hould on them
 and burne them to ashes then taik ij *pennyworthe*
 of oyle de baye and a penyworthe of
 quick silver, blend all together with a convenient
 quantitye of the ashes in manner of an ointment.
 and scurre it well with a stick and thenn
 annoyn therwith the palms of the patient
 hands and then chaife his hands against
 the fyre. Sturr it vnto thow can see none
 of the quick sylver Slea the quick silver
 first with fasting spittills And it is no
 matter althoughe thow taik none of the
 ashes vnt peraventure thowe muste annoyn the
 whole bodie./

TO CAUSE A SORE TO ROTTE Taik milk haver



meale stamped and shepe sewet. Boyle all
together vnto it be plaister like And lay it
To a clothe so hote as ye can suffer yt but
taik not to muche of the haver meal For
then will it be over thick before yt be
well boylid.

3080

f. 87v

TO MAIKE A SEKE BODIE TO SLEPE Taik the white
of an egg swing it well in a dishe thre
nutmugge grated and one sponefull of
Rose water and one sponefull of woo-
mans milke maik therof a plaister and
lay the same to *your* forehead so that the
same may Reache frome the one eare
to the other and befor ye lay it to warm
yt vpon a chafing dishe, And speciallye
lay it well to the temples Qiere pro
hog signo: fo:

FOR PORK ERRES Taik an hand napkin fill
yt with the dew of an ysop border weshe
therwith thy face let the weat clothe lye
on thy faice by the space of half an howre
Vse this and be whole. *probatum.*/ It
must be an ysop border in the Coulde
Froste.

3100

TO SLEPE Taik humlocks Stampe them
And lay them on your forheade frome
eare to eare. *PROBATUM EST.*/

3110

A CONSUMPTION FOR WANTE OF SLEPE
Thow shalt knowe it in this manner. when
the patient should slepe watche him and
thow shalt perceyve that his lighte doe lye
ydle and do not Care to do ther office
that is to say to draw in the breathe. And
therfore the patient when his lights have
lyen ydle so long that nature can suffer
no longer then for want of breathe drawing

f. 88r

3093 napkin] *emend.* mipking **3108** to²] *alter.* do

3077 if²] HA. *bot. marg.* to



he startithe furthe of his slepe like one
affrayed and pantith for want of winde
lyke a man whose mynde were almost
gone. *which* in Continewance of few wekes
is redie deathe for want of slepe. if the
patient can get no remedye And I
haue knownen one dye. when I was younge
and knew no help for it Thow shalt remedie
it in this manner Cut a good long shytt in
the left syde of the patient cote and dublet
even to his shirte againste his hert and left
papp and lower even to his waist and also
betwene his shoulder and a litle lower
And maik a godd wyde hole that the aire
maye *comme* well in bothe placis And in
the day tyme also taik a pece of white
hose *lynning* well weatid in water And
lay it to his hert betwene his /shirt\
and his skyne but not so weat that yt
Roue. but first the water being competently
crushid furthe And when it is drie
weat it again and kepe his neck baire
And with as few clothes as he can suffer
for could and when you haue ordred him
this wise all daye. Then in his warm
bed (where is his moste greve) let
him haue the same weat clothe vnder
his left arme againste his herte and
maik him lye as could as he can frome
the myddle vpward vize in somer the shete
onelie or eaven nakid and alwaies kepe
his neck bair And this short doctrine for
this disseas is to doe all *your* diligence
to maike and kepe could the harte and
the lights For this disseas commithe by
ever muche heate and some ever muche
dalyeng with thy wise. qui prius scripsit

f. 88v

3117 can] *emend.* gan 3129 his²] *cancel.* shoulder

3133 baire] HA. *bot. marg.* and

et testio iij perhuit. / And vse nesing as in
3150 þe chapter folowinge

ANOTHER PRACTISE which I haue vsid myself when I was lij years ould I began to waxe feble and sluggishe like as I should haue bene oppressid streight way with age In so muche that my leggs were so faint and feble and all my bodie so sluggishe namelie in somer *and* warme wether And also I had a distillacion furthe of my head into my stomake and towards my longs or lights and my stomake not good and my meat so vnquist with me in so muche when I had eaten and drunken my meal at night my face would haue Glowid with the vnquietnes of the meate and my voice whors or harsh like as I had bene half dronken and humours oft falling into my eies which maid theim oft sore So that I did looke to lyve and continew but few years Therfore I devised this remedie I did taik a bur tre or elder tre stick (for of all other things or woode which I provid that is the best) as bigg as my thombe almoste thre inches longe, the core being thursten furthe and did hould the same in my mowth betwene my teithe euerie night that the water which vsid to descend into my stomake might rane furthe at my mouthe this stick had a mik in either syde. and would lay my head well asyde that the water might rane furthe more better Further euerie morning so sonne as

f. 89r

3156 so^{2]}] *cancel.* shugg **3169** did] *cancel.* lyve

3164 haue] HA. *bot. marg.* Glowid



I had washid my hands. I had a
 fyer bent or rishe and did knit a
 knot in the myd therof and did
 put it double into my nose moving
 the knot a litle and a litle vnto I
 had nesid thre tymes and then
 as ofte on thother syde of the nose
 and with the said burtre stick letting
 The water furthe of my mouthe and with
 the said six nesis euerie morninge I
 did get my bodie lustie again And I
 giue almighty god thanks at the
 writing of this being lxxij yers ould
 I was lustie of my age as any

3190
 3200
 3210

was in the citie where I dwellid
 and far more lustie then I was at lij
 years when I begane with the sayde
 practise And this haue I written
 in the praise of almighty god which
 gave me grace so to devise for my
 healthe and prolonging my life
 And also that other having occasion
 may do the like, and it is excellent
 good for any evill at the harte or in
 the stomach or in the lights

FOR THE MEGRIME an excellent practise
 Taik a quantitie of black sope and as
 muche of vnslecked lyme blended, to-
 gether to the quantitie of a walnutt
 Then taike a pece of glover lether
 as broad as the palme of thyne hand
 and maike a hole in the myd therof
 as bigg as a good pease, spred del-
 phin plaister vpon the lether and laye
 yt to the temple of the head and leye
 the hole right on the which thou seist on
 the face in the ma/r\gen and herd vpon

f. 89v

3193 letting] HA. bot. marg. the



That hole laye the said lyme
 and sope and thrust it well down
 that yt may lye hard to the skyne *and*
 aboue on that ley an other pece of
 lether spred with the delphin playster
 almoste as brode as the first pece *and*
 the first pece of lether shevithe to fence
 all the faice frome burning but onelye that
 litle hole and do like wise

on the other syde of the head and let
 yt stand so *iiij^{or}* or. v. hours. And change
 the patient no to stryve with it although
 yt be painfull, for if he should stryve
 with it. and *perchaunce*: put the lyme
 and sope besyde the lower lether
 then yt would burne the patient face
 and maik a fowl ear, And after. v.

3240 hours when the pain is gone taise
 the plaister awaie Then taik a
 clout of lynen as broad as your hand
 and dipp it in the white of an egge
 well beaten and thre or *iiij^{or}* dropps
 of freshe butter molten and putt
 into the white of the egg and depe
 also in the same a good ball of lyen
 or fyne herdes and put it on the
 place *which* the lyme hathe burnid
 and the said weat clothe aboue on
 yt, And so let it lye there so longe
 as the sope and lyme did

3250 or longer Then taik a pretie pece of
 glover lether as broad as a groat *and*
 spred on yt delphin plaistre and lay
 to the burnid place vnto it be hole *and*
 to be more perfite where to burne yt
 at the said litle hole Taik thy finger
 and feele the face about where thow

f. 91r

f. 91v

3223 the] rep. lay the 3230 that] cancel. burning 3251 longe] rep.
 the so longe

3251 longe] HA. bot. marg. as

3260 seyst the prick and let him
 chew and where thou *perceyvest* thend
 of his Chaw bone store best and a
 dimple in manner of a hole theyn
 burne yt, but breake yt not at the
 chaunge of the moone not at the
 full not vntill the signe be frome
 the head. And this practise is not
 onlye good excellentlie for the megrim
 but also for all other ache in the
 3270 head And also will do great ease
 to him that hathe the falling siknes.

TO MAIKE DELPHIN PLAISTER Taik of
 Rosen a pound of wax a *quarter* of shepe
 talow a *quarter* melt it well toge-
 ther and stor it well vnto it
 then taik it frome the fyre
 and when it was somewhat kelid
 put a quantitie of turpentyne *and*
 sturr it verie well and after cast
 3280 yt into a bowle of fair runing water *and*
 maik it in Rolls and wrethes and kepe
 it for thy vse This plaister is toughe and
 will stick herd So that it nedith not of
 binding on. IT WILL DRAWE AND HEALE./

f. 92r

For the gowte Taik the roote of herbe
perposer id est water cresses. stamp yt and
 strein yt and it wilbe like gelie and
 annoyn the ache therwith And it is
 a mervaile if euer thou haue yt again

3290 FOR THE CANKER in the mowthe taik sage
 and as muche of pimpernell and *half*
 as muche of parcelie Shred them
 with a knife and stampe them small
 put therto a litle burnid alone then
 taik it vp and drie it then

3260 the] *cancel.* preist 3294 then] *rep.* then

3275 if²] *lac.* 3279 cast] HA. *bot. marg.* yt

beat it into powder. this powder
hathe bene previd and never failithe.

FOR THE could palsey. Taik heyrif *and*
lavander like muche, boyle them with
freshe butter, vnto half be waistid
Then strein yt, and therwith annoyst
the patient wher he nedithe against
the fyre ones or twise on the daye
probatum /

For the Goute Taik a handfull of doves
dounge a handfull of Crommes of browne
bread a pynte of viniger oil or more
of goodlie black sope put all over
the fyre but let yt seithe but softlye
Then strein yt through a clothe Then
spredē on a clothe and lay it on the
sore *probatum est*

f. 92v

FOR THE GOWTE Taik lyn sede boyle
it in runing water vnto it be tender
Then taise iuce of henbane and herb
benet of eche ana. Taik ij *pounds* of shepe
Tallow. medle all the said matters well
together vnto they /be\ plaister like and vpon
a clothe lay it to. This medcyne hathe
bene provid many tymes and hathe donne
away the pain and the swelling in a
daie and lesser.

FOR THE GOUTE Taik floore of oots and
a little handfull of litarge small
ground and boylid in fair runinge
water vnto it be plaister like and
hote as ye may suffer lay it to þe
sore. This medcyne hathe put away
the pain and the swellinge in half
a daie.

VNGUENTUM VEIN MECUM Taike borage

f. 93r

3330 daie] HA. bot. marg. vnguentum **3331** borage] HB. ext. marg.
vnguentum vein mecum

femitorie selven, scabions the leves, eli-
campana red dock the clote bothe leves
and roote of euerie one ana bruse them
well together and let them

lye xi daies Then put therto theyr
weight of swyne greace boyle yt
and streyn yt and kepe it in boxes

This oyntment is good for the iche *and*
3340 the scabb, for the morfew, for
scaldinge *etc.*

FOR SWELLINGE OF LEGGS by dropsie or other-
wise Taik mallows and seith them

in Runing water vnto they be tender.

Then taik them furthe and lay them on
a bourde and let the water rune away
so clean as ye can Then taik a *quarte*
of milk and seithe the mallowes again
in the milk And as it dothe seithe

3350 strew in oten meale a little and a

little vnto yt be plaster like Then
lay a plaster therof to the leggs
of the patient. *probatum est*

FOR ALL MANNER OF SWELLINGS in þe knees

Taik rew and lovage stampe
theim well and meddle theim with hony
and frye them together and laye a

Plaister therof /to\ the bolne knee as hote
as ye can suffer. or a hote rew toorde / or
rubbing them with oyle or turpentyn

f. 93v

3360 FOR BOLNINGE OF THE FEETE Stamp burtre
otherwise callid elder tre bark and
lay to the fete

For a broken legg Taik and ioine the
boons together even and iustlie Then taik
olen Rosanum and temper with yt. bole
armoneak then plaister yt on lynen

3335 them] *cancel.* tope

3357 a] HA. *bot. marg.* plaister



clothe and lay yt to the legg./

FOR ACHE WHERE EUER IT BE. Taik reade

3370 wyne lies and new ground musterd
of the best ye may get and the best
leven bread ye may get maik therof
a plaister and lay it where the
grevaunce is and yt shalbe easid
anone on WARRANTISE./

FOR THE SCIATICA. Taik gall of a
bull a *quantite* of good woort and boile
them together till they *Comme* to a pynte
Then put therin a pynte of stronge

3380 vinigar and a vnnce of Frankensence in
powder *half a* pound of honie boyle them
all together again to yt be thick Then
lay it vpon a pece of lether or red
Laishe, and sew a clene lynnен clothe
therto and lay yt to the hooke bone as
warme as ye can suffer and let it lye
their ij or iij daies and ye shalbe
whole but then kepe well thy plaister
And if any other man nede yt then
warme yt and lay yt to the sore
And thus may ye lay it to the sore
And thus may ye lay one plaister
to many men PROBATUM EST

f. 94r

FOR STROKES blew and not broken Taike þe
iuIce of wormewood clarified honye
and new wax and bores greace and
Comyne of euery one like muche in weight
Frye them all together maike a
plaister and lay to the sore And it will
aswaige the bolning put awaye the aking
and also the blacknes.

A Restorityve taik ij *pounds* of cappid daites

3370 musterd] *cancel.* sede

3375 anone] HA. *ext. marg.* warrantise 3383 red] HA. *bot. marg.*
laishe

weshe them in good ale taik out the
 stones and the pithe within and then
 cut them small and stampe them till
 they be as tougue as wax. thus taik
 a quarte of honie clene clarified *and*
 cast the daits therin stor it well to-
 gether vnto the daits be dissolvid
 3410 in the honie Then taik *half an* vnce of
 long pepper and of maces and cloves
 and nutmuggs of eche *half an* vnce well
 Beaten to powder Then put the
 honie and dates vpon an easye fyer of
 coles and let yt seath eassilie and euer
 sturr easylie And so be casting in thes
 powders a litle and a litle vnto all be
 in but alwayes stor fast and so let it
 sethe till yt be thick Then taik yt from
 3420 the fyer and strew in it half an vnce
 of powder of ginger and stor it well
 together Then put it in coffins as ye
 charede quinchies and eat therof
 euerie day first and last And be the
 neuer so low brought with sicknes and
 yt will restore him again in short
 tyme And this is surelie provid./

f. 94v

FLOS VNGUENTORUM Take *half a* pound of perrosen
 virgin wax frankencens of eche a *quarter*
 3430 mastick *half an* vn/g\uce sheps talow or goats
 talow a *quarter*, of camphere ij *ounces*. melt
 that is to be molten and powder that
 is to be powderid boyle it on the fyer
 and strayn it through a clothe into
 a pottell of white wyne and boyle
 the wyne and all together and let it
 kele a litil then put in a *quarter* of
 turpentyne And stor well alltogether
 till it be could This nitreat or oint-

3413 the] rep. put the

3412 well] HA. bot. marg. beten



- 3440 ment is callid flos vnguentorum
 And it is good for ould wounds and
 For new, for among all other intreats it
 is moste cleensing and sowding and engen-
 dringe good fleshe And it healithe more in
 vij dayes then any other intreat will heal
 in a monthe It sufferithe no corruption
 in the wound nor evil fleshe to be
 engendrid It is good also for the heade-
 ache and for wynde in the brayn And
 for an Impostume in the head and for
 bolning of the ears or chekes and for
 Sawcefleme for synews that ar cerven
 or starke of travell It drawithe Rustie
 yron, therin or what thing that is
 in a wound, It is good for byting or
 pricking of venomous beasts It rotythe
 and healithe all manner of boches without
 sore It is good for feasters and cankers
 and noli me tangere It drawithe
 out all manner of ache of the lyver *and*
 of the splen and of the kidney it brekith
 impostume It is good for ache and for all
 manner bolning of pryvie members of
 man or woman It is good for bollinge
 dropsie of all manner members of man
 Also it cessithe the flux of mestrews
 and emerods and healithe yt, It is prin-
 cipall to mann in all things that akith
 or gnawithe in ioint fleshe or synoue
 and speciallie to make a sere clothe
 to heale all manner diseases and sores
 aforesaid and many other moe, For
 It healithe and searchith most both outward
 and inward of all other oyntments
 This was written and Casten into a re-
 cluse at the Rode hill in almaigne who
 wrought many marvells therwith and
 never vsed other and found euer trew
- f. 95r
- 3450
- 3460
- 3470
- f. 95v

3441 and] HA. *bot. marg.* Sore 3472 For] HA. *bot. marg. yt*

and good,

3480 TO staie vometing vse to drinke the iuce
of Rew warme with white wyne and
suger even and morne or eat thre
leves of rew at morn with suger and
thre of Sage at even

FOR vexinge or hickop drinke the iuce
of rew with ale and suger,

For him that hathe no talent to meat
Taike Centorie Seath it in aisle and
drink it warme ijij daies together
and it will purge the stomak and
the brest./

3490

FOR THE EIES Taik smallage fenell rew
vervain egremoyn betonie scabions ava-
nace hound stomige ewfraice pimpnell
and sage, Still all together with the
vryne of a man childe and fyve
grayns of frankencence put one
dropp of water in his eye when he
goithe to bed and he shalbe hole

3500 And haue his sighte And if he
haue lost his sight. x. years before this
water will recover it again in xltie
days, Temper the iuce of egremoyn
with the white of an egg and with a ball
of flax or fyne herds let it lye on
the eye when thou goist to bed And if
therbe any eveill blood or matter in
thyne eyne it wilbe hole without dout
Also taik the gall of an hare and
clarified honie and with a fether laye
it on the webb in thyne eye and it will
break it within thre nights and Save
thy sight (ON WARRANTISE) And if the
webb be ould taik the gall of an eyle
and drie it in the sonne and maike

f. 96r

3499 hole] HA. *bot. marg.* and



- 3520 powder therof and put in *your eye*
Taik betonie the leaf or root and
drink iuce therof And it will put
awaie the watering of thyne eye,
Taik an ounce of lapis calaminaris
and an vnce of Totie Allexandrin
brey theim. ix. tymes and euerie tyme
quench them in white wyne or rose
water then gland theim small with
capons greace and annoynt thye eie
or put of the powder in rose water
and drop into thyn eie with a fether
And it shall Clarifie thy sight *mervelous*
well./
- 3530 FOR PAPPES that be Rankelid and aken
Tayke ground salve and Casie washe
them and drink the iuce with stale aile
first and last Then Taike senvye sede
and stamp it well in a morter put
thereto the third parte of Crommes of
wheat bread then cast therin drye
figgs honie and viniger as the *quantitie*
of the sore requirithe And the more
that thow castes in the drie figgs *and*
honie the shapper is the plaister *and*
the senvey, but the more bread *and*
vinager thow casts in the febler is
the plaister I Counsell that thowe
set mucie by this plaister for it hathe
bene ofte proved but lay it not to all
Sores.
- 3540 FOR a Wound healid without but not within
or for priking of a thorne or nayle
or any other yrone althoug it be rusty
Taik stonecrop mowsyer hilwoort *and*
betonie and drink the iuce therof
with ale and it will dryve it oute
This is provid often tyme for truthe./
- 3550 FOR an ould sore and speciallie for
mormall Taik the powder of brent

f. 96v



oyster shells and a goode quantitie of
 angell twaches and stamp them with a
 good quantity of frankensence and
 Medle the foresaid powder withall to
 it be plaister like sprede it on a lynnен
 clothe and lay it to the sore. probatum /
 For deafnes taik an onyon and maik
 a core therin and put it in a quntite of
 oyle debaye and a quantite of franksence
 and a quantity of aqua vite and set the
 onyon in the ymbers and when it is
 rosted wringe it throughe a cloute
 that is fyne and put a drop in the
 ear and let that syde lye vpward
 and so est some in the other eare if
 nede be.

f. 97r

3560
 3570

FOR THE STONE, Taike Allexander sede
 gromell sede coliander sed percelie sede
 saxifrage fyne tyme ana. put therin
 \\ a race of ginger maide into //
 fyne powder and mangle them well
 together and drink therof withe
 malmesey or staile aile or bloodwarm
 and if ye vse to drink therof euery
 3580 quarter of the monne it will do the
 better, This hathe done many man
 good without failie,

FOR THE MEGRIM Taik a good quantitie of
 vervyn sethe it in thre quarts of water
 vnto it be almoste thick then stamp
 it and maik it in plaister and lay
 it warme to the temples but lay it wel
 backward to the noddle probatum est
 chervile stampid with crammes of Rye bread
 and vinager in lik manner laid to, dothe the
 same./

3590

FOR GOINGE OUTE OF THE FUNDAMENT Taik
 frankensence Sethe it in water and

f. 97v

3558 and] HA. *bot. marg.* medle **3591** same/] HA. *bot. marg.* For

weshe thy fundament therwith and help
it vp with thy finger. AN OTHER strew
powder of herts horne./

FOR CANKER IN THE MOWTHE Taike

woodbynde, and planteyn of ether
a handfull bray them small then
taik a pinte of eysill an other of
water a quantitie of honie an other of
allome boyle all together then streyn
it into a glass and with this water washe
thy mowthe with a lynnен clothe on thy
finger or els bound to a stick end and
Rub herd and it shall fle the canker
and the stinking breathe and save
thy tie the frome rotting, ON WARRANTISE.

TO BREAKE a woomans flowres Taik

and sethe fether foye in good ayle
frome a pottell to a pynte withe
a good stycke or two of lycores
and drinke fastinge ix dayes
thre spoonefulls at once. and
madder wyll do the same
without Fayle.

FOR THE AGUE OR PESTILENCE Tayke thre

f. 98r

spoonfull of dragon water one spoonfull
of vinager the quantitie of a nutt of
Triakle and warme them and let euerie
one not infectid drinke thre spoonfull
next ther harts therof thre mornings
and nether eat nor drink thre howrs
And by gods Grace they shall scape

For the Ague tertian or quartan. Fyrst
on the good daie drink fasting white
wyne In the which hathe bene stepid all
the night before wormewood and
for fault of wyne taik ould aile And

3627 all] rep. all

3616 Fayle] HA. bot. marg. For

3630 on the eveill daie maik potage with endive
 burage buglos and Agremonie of eche
 like muche, of the leavs and Roots of
 Succorie the pithe taken out a hand-
 full, and ij or iij Rots of read fennell
 the pith taken out bynde the herbs
 together and let them sethe well then
 taik them vp and strew them into the
 potage and eat therof on the evil daie
 two howrs before thy fitt And if thow
 3640 Cannot get all the said herbs yet *prove*
 with suche as thow can get do so in all
 medcynes and salves. An other Taik
 a pynte of malmesey boyl half a way
 Then taik pepper and graines and
 A penny woorthe of Aqua vite and the
 iuce of the inner parte of Cellertre
 bark and of the wallnut the bark in like
 manner and put all into malvesie and
 drink it a little before thy sitt do *comme*.
 3650 walk half an howre after Then lye the
 downe and hap the well that thowe
 maist sweat /

f. 98v

For the Strangurye

CAMOMILE COKILL PARITORIE
 LETICE MALVES STOLOPENDRIA

Seithe theim, and as hoote
 as thow can suffer ley theim
 to the bottome of thi bellye
 thi codds yarde and so vpp to
 the Reyns And when yt is
 coold, heat it and lay it to
 again or baithe the with
 it in a great hogesheed. /

3660 TO STOPP A LAX Take powder of
 Synamound and of a pomgarnet skyng

3646 of^{2]}] *rep. of*

3644 and^{2]}] HA. *bot. marg.* A

or of the kyrnells of it and boile in
new milk, and eat it milk and all,
And withe bread if thou list.

TO STOP BLEDING AT THE NOSE let the
patient take twoo hevie weights in
ether hand one / And with theim let him
walk vp and down the howse and he
shall cease bleding streight way.

FOR THE TOTHE ACHE Stamp half a
heed of garlik, and bind it to the
bare wrest of the contrarie Arm
on the In sole of the wrist (but my booke
saith not on the contrarie arm but on
the arme of the same side that the
tooth mark is on) And let it lye there
xij howrs And be Assured it is vere
goode /.

f. 99r

FOR THE STOONE OR STRANGURIE
a singuler medycine And namelye
when he can make no water Take
the Iuce of Alexander an egg shell full
and boole it in a pinte of malmesey
And give it the patient to drynk while
it is warme And he shall make water
and voide the stone incontinentlye
without faile you may burne yt as you
do malmesey if you list.

FOR ONE THAT IS FRONTIKE Take the
herbe called Chervill and seithe it
well in malmesey. And ley it warm
to boode temples of his heede And bind
it ouer do so often tymes And to the nodule
behind the heede.

FOR TOTHE ACHE Take the Inder Rynde
of burtrie barke otherwise called elder-

3678 on²] rep. on

3678 on²] HA. bot. marg. the



tre with Absinthiun. *id est.* wormewoode and
 pownd theim to gether in a morter
 and then if the toothe be not holed rubb
 the gumes And if the tothe be holed put
 in a pellet mayd of the same and change
 it often and it shall ease the as it
 is thought And by many it haith bene
 practized and sownd good /

A GOOD AND PERFIT PURGACIONE Take
 3710 a *pennywaight.* of the powder of Ceney Alexander
 corriander seedes xv *pennywaights.* Aniseeds liquorous ginger
 Sinamound mace Ana vi *pennywaights* of everie one

f. 99v

2 groots weight all in powder, white suger
 2 vnces *and a half,* put all thes into a pinte
 and a half of oold aisle of wine mesour
 Then woorke all to gether the space of an
 howr frome one pot to another And
 let it stand almost an howr after this
 maner doo it thre tymes, And then
 streane it And drink it milk warme
 And if you will haue the drink pure
 let it rune throughe your strener easelye
 bi it self / And if you woold haue it
 woork ernestlye and surelye let it seith
 vpon the fier 2. walnuts and then stream it

ANOTHER MOORE EASIE Take. Suaci. Ros.

2 *pennywaights.* diacatholicon a *pennywaight.*

diasenionum a *pennywaight* et confectio

hamek a *pennywaight.* Quiken it with

3730 diagredion This will cause abowt vj
 stooles And if thou bidde the poticaire
 to quiken it well with diagredion it
 will cause viij or ix. And the dooble
 receat will cause dooble so many stooles

3725 walnuts] *emend.* walnus

3710 Alexander] HB. *bot. marg.* Coriander **3730** diagredion] HB.
ext. marg. diagredion the best | is shinyng and blakk | *and if you likk it*
with | your tong yt will a foome tarie on it | ther is also white | but if it
bitter | it is nought.



The potcarie will bue the first receyt
for vjd And the dooble for xijd you
shall take the first receyt with thre
sponefull of ale warme And the dowble
with vj. sponefull / Best receaving is in
the morning fasting And to eat nothing
vnto it haue wrought And then to get
a morsell of good meat, For when a man
is fasting there is nothing for it to work
on but the choleryke humour And kepe thi
chamber and the hows al that days And take
regard to the Almynak for the day of rece

3740
ANOTHER Take a sponefull of licores
well beten And a sponefull of aniseedes
And a sponefull of powder of Ceney, boil
all in a pint of good ale vnto a quarter be
waisted Then streane it and drink it
fasting And it causethe a good lax And
put some suger to it if ye will make
the drink moore pleasant And this
drink thow may kepe in a glas And
take ij or iij. sponefull everie day after
dyner, or what tyme of the day you
will and it will kepe you soluble, but
if you will haue a purgacione, you must
drink a good draught.

3750
3760
FOR THE WORME a perfit remedie take
a yong sooking whelp cut of the head
and leggs. open his belie, doe so warm
and spedelye, as thow can bind it to the
place of the woorme with the bowells And
so let it lye bi the space of
then take it a way And ley to it another
whelp. And so another vnto tyme thow
find noo wormes in the whelp bealye
for the woormes will coome forth into
the warme fleshe of the whelp. And
when thow hast laid twoo or thre tymes

f. 100r

3746 rece] HB. bot. marg. Another 3766 of] lac.

and doest se no woormes coome forthe
 Then heale it withe a plaister made
 of wheat flour honie, and yolk of an
 egg / And this plaster will keep it open
 a good space and then will it heale / the
 woormes ar as bigg as good pynus and
 vere sharp Cut away a litill of the flanks
 3780 of the whelp. that the warme bowells of
 the whelp may better coome to the soore

TO KILL WARK to ripe a sore to breeke
 it and draw it for the stoone in the bak
 or any other Ache or bruse or stiche
 Take cromes of a Rie crust or of stale
 rie breede and butter Runnyng water
 and viniger, and seede of comyne if thow
 may get it boile all together vnto it
 be plaister like And ley it to thi bakk
 3790 liske and codds warme And if thow
 will haue it to doo awaie the bolning
 and wark without breaking then take
 in vineger Also thow may put in a
 litill Aqua composita for the plaister
 to the bakk

TO MAKE AN EASIE VOMITT take the
 flowres of burtrie otherwise called elder
 tree stamp theim well And blend them
 with honye And eate therof

3800 TO RESTREIN A VOMITT Take vere sower
 leven mixt it with Iuce of mynt and
 vineger make therof a cake a litill longer
 then broode And all hoote ley it to the
 stomake almoost frome the navill vp-
 warde And I woold weete it ouer the iner
 side (being first clovey) with the said
 Iuce and vineger And if you mix some
 rosewatter therwith it will do better

f. 100v

3781 soore] HB. *bot. marg.* To **3787** and^{1]}] HB. *ext. marg.* This is
 good also | for a soore pap | if thou anoint | the soore also with | oile of
 camamill



3810 And ye may put a lynen cloothe betwene
the stomak and the plaister And renew
it iij or 4. tymes in the day. And make
your licour and the Inside of your cake
hoote at everie renewing / or take hoggis
dunge namelye that sedith on Acornes or
serue ruts stamp it small and seith
it in vineger vnto it be plaister lyke
And then all hoote ley it to the stomak
And renew it as before And feede the
patient with deintie meets and light of
digestion, and comfortatyves as *succarum ros.*
3820 And let him often chew Synamond and
eat vere litill meat at ones.

f. 101r

FOR THIK WINDE called Asma the lights
of a fox dried on a hoote stoone and made
into powder and blended with wine or
sirop of ysopp is mervalous goode to be
drunk or eaten first and last./ Also take
Savyne j *pennywaight.* butter iiij vnces / hony iij vnces.
and this is good for the same if *you* eate
it fasting.

3830 FOR THE STICHE in the side or any other
place Take a Rie tooste and ley theron
triacle And as warme as may be
suffred lay it to the bare place of the
stiche and bind it fast therto./

FOR THE GOWT or any other wark
take blak Snaills Slitt them and put
theim into a lynnен bagg. And sprinkell
amongs theim a lytill bay Salt Then
3840 hing the bagg over a cleane vessell to
receave the oile that droppith frome
the Snaills and anoint the gowt or
any other wark therwith

FOR THE HEAD ACHE take great wores
stripp forthe of theim all the superfluitye

3817 stomak] HB. *bot. marg.* And



within them then Stamp their skyns
and ley theim plaister like to the heed /

FOR A SOORE PAP Roost Sorell in
ymbres lapped in a doken leaffe or twoo
And put that sorell as hoote as it may
be sufferid to the sorest plaice and it
will rype it and break it Then plaister
vpon it ould dast or barme and it will
drye and heale it

FOR THE HEADE ACHE vide cap ij preceden

FOR THE STONE VNCONFIRMIID whiles it is yet
but gravell Taike iuce of garlik and
of Sage and vse to drink it with goode
ould aisle.

3860 For the tothe wark taike Rosemarie
and with your knyfe chop it to powder
blend therwith as muche pepper maik ther-
of a button of lynn Clothe heat the
button hold vpon a stone then weat it
in honie and as hote as thow can suffer
lay it to the sore toothe but bewise lest
therwith thow scalder not thy gooms

An other Taik aqua composita and burnt
allome boyle bothe together in a sawcer
over a chafing dishe. Taik also lynt
and boyle therin and put that lynte
so hote as thow can into the tothe and
so twise or thrise

FOR THE AGUE OR AXES Taik lyverworthe
ground yvie leaves prymrose roots
Rosemarie tyme and sage of endry
A quantitie a Crust of leven breade
vnbroken a penie woorthe or more of
suger candie boyle theise together
in strong ould ayle Stamp the
herbs and Roots Before they be boylid

f. 101v

3870

f. 102r

3880

3850 may] HB. *bot. marg.* be **3876** endry] HB. *bot. marg. a*

Then strein all together and drink
it oft luke warme lay leaves onlie
boylid and drunken as is afore said
is good for the same and therfore
it may be addid to the sore and herts
verie well as it semeth

For a sore mowthe Taik Sage chop
it small put it in honie and roche
allome boyle it on the fyer and so
maik therof hard Rooles like lectu-
arie put as muche therof as a
bean in the patient mowthe to it
melt and after he hathe houlden
it in his mowthe a good spaice
let him spitt it furthe and he
swallow some down it will not
hurt.

FOR a sore pap that is bolnen hard and
akithe taik allome and water boyle
them on the fyer to the alome be
moltid then put therin a lynnен
clothe and lay it hote to the papp
and do so often./

FOR A SORE PAPP Taike verges and
alome and freshe butter a litle, and
a litle honye put all theise in a pan
and with wheat flowre maik as it were
a hastie putten and lay it /to\ the pap
probatum est

3910
For a sore legge Taik tyme and Rosemary
lavander erbe graice sage and percellie
Chopp them verie fynely Then tayke
allome a good quanтие goats grece
or boars greace a litle white copons
a litle quick sylver if it be a very
ould sore yt will heale yt and if
the woorm be ther it will heale
yt by the grace of god./ probatum est/

f. 102v



- 3920 For the eye having a webb or *perle*
 or other sore Taik a hard egg and
 cutt it in the midds whiles it is hote
 Taik out the yolk and in the holowe
 of the white put fyne suger and
 presse the egg and suger hard together
 and ther will oyle come out therof
 blend therwith the gall of an hare *and*
 with a fether put the oile and the
 gall in the sore eye.
- 3930 FOR A SCALDE HEADE Taik black snaylles
 put them in a clean ethern pott put
 to them a handfull of salt and in two
 Or thre dayes it will turne to oyle then
 streyn it through a lynn Clothe and annoint
 the head therwithe ones or twise a daie
 PROBATUM EST for it will dry it to a skoorf
 [LATIN]
- FOR THE WILDE FYER in the face or any other
 plaice of the bodie, It will first be
 read spotts and it will brust out in tyme
 to white wheales litle blaynes and will
 ytche extremelie so that the patient can
 not suffer his hands frome rubbing and
 it will burne verie muche and it tyme
 it will sprede verie broad and if *comme*
 round about the bodie the patient shall
 be in danger of his lyfe The remedy
 therfore is this first taik a collop of
 hung beif that is all fatt and frye it
 to sayme and put it in a broken cruise
 or pott and taik a handfull of the
 herb callid wyld fyer grasse as muche
 as thou haist nede of and the herbe
 is to be founde in the scubble feild also
 taik a quantitie of brymstone and beat

f. 103r

3921 Taik] *cancel.* yt

3920 For] HC. *ext. marg.* Sore Eyes **3932** two] HB. *bot. marg.* or



it to powder and vj cheyves of vnset
 leiks or more if thou haue neide
 First washe the hearbs and taik a
 frying pann and put it in the sayme
 of the beif Then taik the herbe callid
 wild fyer grasse and Cut of the lower
 Roots of the same and Chopp the herbe
 verye smalle and frye it verie muche
 in the same of the hung beif and set it
 by till it be almoast Could then tayke þe
 Chyves of vnset leiks and lay theim on
 a fayer tyle stone againte
 the fyer to they be dried to powder and
 tayk the pouder of brymstone and put
 it into the same of the beif when
 it is almost coulde for els the brym-
 stone will run in lumps lyke little
 gravell stones, The powder of vnset
 Leiks thou maist mull betwixt thy
 fingers into yt And whan thou haist
 Done thus put it into an ould cupp for
 thy vse; and whan thou haist nede of
 yt taik a litle of it in a Sawcer and
 warme it on the Coales and taik a
 fether and annotte the patient therwith
 and bynd a Clothe about the sore but
 never shift the Clothe to it be hole
 for it may not haue white clothes
 for it will maik the sore verie
 Rawe but thou maiste bynde a white
 aboue the ould if yt be on the bodye
 Thow maist not shift the patient shirt
 till it be whole for it will be longer
 in him al nige and will do it muche harm
 This oyntment is pretiouse and by the
 help of god hathe healid verie many
 which haue bene gryetlye venemid

f. 103v

3966 on] cancel. the fyer **3969** and] emend. of **3989** him] emend. he

3960 callid] HB. bot. marg. wylde **3990** the] HB. bot. marg. helpe

f. 104r



bothe in the face bodye and also on the head. probatum:

AGAINSTE THE HARTE BURNE Drink a spongefull of vinager for that is a very good Remedie and well proved

FOR A COLLICK WINDE about the Stomake
Taik iiiij or v pecs of ginger thyne Cut
and Swallow them so whole as ye can

For the woorm Taik the herb callid
Swine gers It growithe in euerye
paisture ground by tustes and hathe big
iaggid leaves and towards the latter
end of sommer it puttith vp a stalk
of half a yead long and hathe in
the topp therof many litle yellow flours
And it is callid swines gers because
if yt be small choppid and gyven
in ther meat to swyne they are mesell
it will hole them Take a quantitie of this
herbe chop it small then seithe it well
in milk and oten meale and as warme as
the patient Can suffer Lay it onn the
plaite of the woorme and let it lye ther
ix dayes and by that tyme will the
woorme be dead Then heal it vp with
may butter and Iuce of woodbynde
well mixid together.

4010
4020
4030

FOR THE ICHE Taik dockan Roots but
let the Chores be taken furthe and
fry them or seithe them in freshe butter
or swynes greace And therwith annoint
thy bodie and if thow put therto powder
of brymestone and a litle quicksilver
it is better,

FOR THE SHOWLDER OUTE OF IOINTE Taike a
ladder of vj or viij Rouges long knock
furthe the lower moste ruug but one
put in the holes therof a wymble
Then pull of the patient Clothes frome

f. 104v



his arme or els ripp them of to his
bare arm then Cause the patient to
put his sore arme over the vppermost
roug of the ladder but lapp that roug
first iiij or v tymes about with a towell
for saving his arme frome hardnes of
the Ruug being hard vnder his arme
hole and if the ladder be over highe
let the patient stand vpon a stoole
or sit vpon a bed Then taik a towell
and knit the one end about the arme
hard aboue the elbow surelie that
the knot slipp not Then put the
other end of the towell about the
wunble and spit vpon the wunble *and*
towell that they may better cleave
together without turning aboue and
One stand behind the patient a litle
higher then the patient and let an other
turne the winble about leasurelie with
the towell and let him aboue somewhat
gwynde the bone forward and let him
at the winble turne still vnto it
be Come into the ioint which you shall
lightlie perceyve, Then annoit it
with freshe butter or somethink to kepe
it sowple.

4060 For the ytche and scubb Taik swines
greas pepper small beaten and quick-
silver blend them well together vntill
you Can se none of the quick silver
and that will heale a skald horse
therfore I trow it healithe./

FOR THE STONE or that Strangurie when
you cannot maik water Taik the maw
of a Caponn cut it and scrape furthe
the filthe therof then taik the ynner
Rynde or skyne therof drie it *and* maike

f. 105r

4048 and] HB. *bot. marg.* Let



- 4070 it to powder Then after the wise hath
 maskid all her drink heat a good
 porcion of water and Cast it on the
 graines and let the patient put of his
 Clothes and get him into the mask fatt
 so hote as he Can suffer and let him
 drink the said powder with good olde
 Ayle and so let him hathe him self
 well in the said hote graines Or
 ye maie cause him to baithe him self
 in a tunne or hoggsead in fair warm
 water wherin saxifrage, grandei or
 other herbs. good for the stonne is
 sodden This is a verie good expe-
 rimente for the stone
- f. 105v
- 4080
- A drinke for staing of the
 Strangurie
- Taik a handfull of knott grasse and a
 handfull of vervyne and a handfull of
 bursay pastoris and purselyne way-
 brye and banwart ana and a good
 stick of Lycores and put all theise
 into foure quarts of water and boyle
 it vnto half then strein the water
 frome the herbs. and then Taike *a dozen pennywaights*
 of Cocomber sede and as muche of
 millon sede goord sedes and sitrion
 sedes ana and stampe them together *and*
 then strein them into the said water
 and drink therof even and morne
half a pynte
- 4090
- 4100 FOR HIM THAT CANNOT PISSE maike a
 posset of white wyne Taike of the
 Crudd Then taise the strongest onyons you
 can gett and slyse them and boyle them in
 the posset drinke tyll they be verie softe
 and gyve it the patient to drink as hote
 as he can suffer it drinke it and this ys
- f. 106r

4076 olde] HB. bot. marg. aile 4102 the] HB. bot. marg. Crudd

verie good and experimentid./

FLOS VNGUENTORIUM

4110 Take *half a pound* of Rosen. *half a pound* of parrosen
virgin wax v *pennywaight* and frankensence of ether
a *quarter* of a pound. ij drammes of Comfere
an vnce of mastick of harts tallow a *quarter*
of a pound maike powder of them that
will powder and Cast it throughe a
serce Then melt thy other things and
powder together when it is molten taik
yt frome the fyer and then put thereto a
quarter of turpentyne a litle and a litle
4120 or els it will fle over the pan and
stur it well together Then cast it into
a pottle or *quarte* of white wyne and
boyle it well and aboute one daie after
streyn it throughe a Canvas Clothe And
put it into boxes to kepe This salve is
good for all sores for it will bothe clens
and heal And it is good for sinews stray-
nid or spronge and also for any warke
yt will break and heale an impostume or
canker It is said to be good for impostume
of the splen or lyver Also it Restraynthe
superfluitatem menstrin if it be implastrid
On the woomonnes navell. vide supra.

4130 Diagredion Vsule Turbith Rubarb
eufor vij mastice agaric ana ij *pennywaights* Aloes
Cicotum ij *pennywaights* Those beaten to powder
temper with some kind of wyne maike
pills therof as grete as benes taine
one when thou goist to bed lap it in a
possit crudd and swallow it hole It
4140 will cause the to haue before the
morning thre or iiiij good stooles./

A BLACK PLAISTER good for new Sores

f. 106v

4120 and] cancel. it

4132 implastrid] HB. bot. marg. on

or ould or for a bruse and oft provid
 Taik a pound of white lead small beten
 and boultid as ye would do flowre then
 Taik a pynte of woole oyle iput in
 your lead and sethe them on the fyer
 vntill it be black and when it is boylid
 4150 enoughe it will rope or drop a drope
 therof on a stone and if yt be harde
 when it is could it is sodden ynoughe
 or els not probatum. I think this is neyr
 bond which is aboue written

FOR AN OULDE SORE Taike an handfull of cole-
 woortle leaves bray them small temper it
 with honie that it be plaister like laye
 it to the sore and lapp it well vse this
 twise a daye and it will taik away the
 4160 dead fleshe though he it were iij ynches
 Thick and heale withoute any other plaister
 if it be Curable though he it be xxx year
 oulde probatum.

f. 107r

FOR AN HEIRE SCARTHE, taise a pair of good
 sisers and Cut awaie all the reade
 fleshe on bothe sides the skarthe which
 semithe to let the scarthe to close and
 looke thow cut it hard by the white skin
 Then stiche it like as thow should stiche a
 4170 wound with ij or iij stiches as for the
 bleding Care not for it will
 stop of it self but the patient head must
 be holden fast whiles it is in cuttinge
 and his bodie bound to a table with a towell
 or otherwise as in a chaire as you can
 best devise Then freshlie althoughe it yet
 blede taik a fyne lynen or laund clothe
 and weat it in the water which thow
 shalft fynde aboue in leaf and
 lay it on the skarthe and alwaies be

4171 it] rep. for it

4179 in] lac.

dropping of the said water on it and
 the blood will staunche nevertheles
 kepe thy weat clothe on it vnto it be
 hole and as it dryeth drop on again and
 for the space of xxijij^{or} howres or more
 Let one or other watche with the patient
 that the stiches be not broken with strogolyn
 and let him eat bread with milk and
 potage or other suche like meat whiche
 of litle chewing or none vntill he be well
 4190 mendid and let the patient when he is in
 cutting be laid somewhat sitting bicause the blood
 may run furthe of his mowthe so muche as
 may be And I would not cut him at the
 Chaunge of the moone nor at the full
 nether vntill the signe were past the head
 And about ix dayes and cut awaie the
 one stiche and the other aboute xijij dayes

4200 FOR THE HERINGE Taik an onyon and Cut a
 pece therof out of the topp and put into the
 hole a quantitie of oyle de bay a quantitie of
 frankensens and a quantitie of aqui vite then
 put the onyon in the ymbers and when it
 is well rostid wring it throughe a lynnен
 clothe and drop of that water in the eare
 and let that ear lye vpward and so if nedē
 be do with the other eare PROBATUM EST /

4210 For a feaster. *id est.* a fistula Taik wheat and
 burn yt and maike powder of it and put
 that powder in the hole as depe as ye
 can and lay aboue an oxe tarde and it
 healithe woonderfullie./

For an impostume Taik waybryde herb
 Iohn and mousyear Seithe those toge-
 ther and meddle them with holie water
 and drink it first and last thre daies
 and yt shall passe away throughe the
 fundamant./

f. 107v

4189 whiche] HB. *bot. marg.* meet



- f. 108r
- FOR STOPPINGE A LAXE Taik a quart of read
 4220 wyne and put therin iiij yolks of egges
 and a pennywoorthe of long pepper and
 graynes boyle them on a fyre drink ther-
 of as hote as ye can or taik the ynner
 bark of an oke tre and a peniwoorthe
 of long pepper and a pinte of milk
 or more according to the bark for a
 handfull of bark is enoughe for a hand-
 full of milk and let them well toge-
 ther and drink it warme fyrst and
 last PROBATUM
- 4230
- For the fever vrtica greca plaunteyn
 dandelyon mints and woormwoode
 boyle them in a galon of water and
 gyve him therof that is of /that\ water to drink
 the first day ix sponefulls when the fever
 Comithe the second daye eight spoonfulls
 and so till yt Come to one and this is
 provid trew. Or taik thre spoonfulls of
 eysell and a little saphron well beaten
 4240 a quarter of a sponefull of fyne triakle
 drink all those together when the fitt
 comithe Or taik the Roots of Crowfoot
 that grow in the morishe Ground but ye
 must taik the roots that haue no litle
 rotes furthe of them to the number of xx
 or moe and a litle of the earthe that
 is about the roots and washe them
 not put therto a litle quantitie of salt
 According to the quantitie of earthe and Roots
 4250 and stampe all together And with a lynnен
 Clothe bynde it to your two thoumbes on
 the in syde betwene the two ioints and
 Let it lye ther ix daies vnremovid.
 PROBATUM SEPISSIME./
- f. 108v
- FOR THE DROPSIE could or hote taik a hand-
 full of young springe of eldertre alias

4248 salt] HB. *bot. marg.* accord

4260 burtre the grene rynde being scrapid
awaie boyle it in a gallon of wyne or
staile aile till half be sodden awaie and
gyve him therof to drink even and morne
Or taik the iuce of Elecampana and
temper which wyne and giue him to drinke
thre dayes and all the eyvill shall pas
through the fundament

4270 For the Strangurie Taik affodill alias
daffodill sethe in water by it self and
oyle oliff and boyle it in wyne Then of it
maik a plaister and lay it betwene
the navell and the members and it will
Lowse the strangurie in short tyme by
the grace of god.

For the pestilence Taik yarrow tansey *and*
fetherfoye of eche a handfull bruse
them well in a dishe then let the sick
man maik water into the herbs a pretie
quantitie Then strain it and giue the
sick man to drinke of the some
PROBATUM PRO CERTO./

4280 FOR THE PESTILENCE Taike Rew. j. *ounce*. marigolde. f. 109r
j. *ounce*. sorelll. 8 *ounces* dragons the crop or the root
a quantitie weshe them in Clene water Taik
a pottell of Runing water and seithe therin
your herbs vnto half be waistid and let
it haue a softe fyer Then strein it through
a Clean clothe and if it be bitter put a
quantitie of suger And if he drink therof
x. tymes before the purples do Come furth
by the grace of god he shalbe hole, this
medcyne savid lxxij parsons in one
pestilence tyme

4290 An other Taik an onyon Cut out the Core
and put therin triacle and stop the hole a-
gaine with the topp of the onyon which you
did pair of Then roste it well in the
ymbres then stamp it and strein it with



ale and drink a good draught iij or iiij
tymes and it frome the harte and frome
the stomake.

TO DRAWE A TOTHE without yron Rubb well the
4300 toothe and the gumm with the aple of an oke
or with gume edere. *id est.* gume of yvie. And
thow maie pull it furthe with thy finger *and*
thy thumbe./

A Good dyet for an Ague

First Abstayne frome wyne spyces strong
aile and bear and drink of the smaleſt
ale ye canⁿ get and if yt be not ſmall
ynouge delay it with barlon water or with
pure water well ſodden boyle your
meat with cold herbes as lettice, Spinage,
burrage, endyve, Siccorie and violet leaves
great Rasinge, prawnes and purſelein And
with the ſame herbes make your posſet
aile boiled in water of that water make
your Almond mylk Also with the ſaid
herbes make your posſet aile go not owt
into the Aire, nether take coold in any
wife And ſpeciallie not in your heat or
burning In *your* hert *you* may drink ſmale
aile at *your* pleauour / *yow* muſt abide *your*
ſweat and as neere as *you* can with
temperate cloothes, And if *you* be bownd
and not ſolible you muſt vſe ſuppoſiters
made of honye and ſalt on a glifter

A GODE TEMPERATE DRINK to vſe in
an Ague Take ij ſponfull of honie a ſponfull
of vineger a quatrone of Suger And a
compitent Stick of Sinamound Seethe
all in a pottell of Runyng watter to
it coome to 3 pints And drink therof

4330 FOR THE STOONE Take elecampane
boothe of the Roote and leaf Saxifrage

f. 109v

and Radishe Still water of those herbes
And vse to drink of it first and last
at the spring and fall of the leaf And
after if thou will

FOR THE SAWCE FLEWME take a pe-
niwoorthe of oil de bay and a peniwoorth
of quick silver Sturr theim together vnto
nought of thi quick silver be sene then put
therto a lytill Iuce of vnset leekes And
stur all together withe a slyce take this
ointment And anoint therwith the face
and drie it again the fier And anoint
it againe and drie it And let it stand
ouer ij daies and a half And at the third
day end weshe it away with sower
weshe of a chamber bowle, And doo in
lyke maner anoint drie and washe
againe And it wilbe hoole althoughe
it be vere fowle And after that it wil
attempt to breake forthe again But looke
where it yokethe and prikelethe drie
and anoint with the same medicine at
night and weshe it away ouer the morne
I advise the after thow is hoole vse
to take purgacions for it is an evel
humour if it be hoolden in

TO CAUSE A WOMAN bring furthe
hir child let hir drink the milk of
another woman and it shall greatlye
help hir towards the birthe of hir
child / Also stamp Rew and Scamonye
to gether make a Roole therof as long
as thi finger with cotton or woole blended
withe it And put it into hir privitye
or els withoutt cotton put it into a
litill bagg of fyne lawnde cloothe as

4349 maner] cancel. ma

4333 and] HB. ext. marg. probatum 4339 vnto] HB. bot. marg.
nought 4345 stand] HB. bot. marg. probatum

f. 110r

4340

4350

4360

long as thy finger And anoint it with
 4370 owt with the gall of an oxe or cow
 for that will make the way slipperie
 And it is good for furthering quick child
 or deade Also the Iuce of dittain or the
 powder of the Rote therof drunken with
 drink, bringithe furthe the byrth So dothe
 the iuice of mallows drunken for the second
 birthe And pepper in her drink is
 thought to be goode and also nesing powder
 is good or any other mean that will maik
 4380 her to nese. And I would oft annointe
 the said role with the gall and oft put it
 in that I might maik the way as slippery
 as might be and I would maik it so long
 as the midwife thought it mighte be
 sufferid and bigger then thy finger. Also
 if she drink the Iuce of leikes with luke-
 warme water it is verie good and in
 that drink put a little honie to maik it
 more pleasant, Scammony thow shalt
 4390 haue of the poticarie and if thow cannot
 haue it yet taik rew woormwood
 mugwood dittayn or some of them or a
 date stone shaven or beaten to powder

f. 110v

A GOODE SALVE FOR OULDE SORE
 OR NEWE AND EASIE TO BE GOTTEM

4400 Taik white /of\ eggs and Iuce of burtre als
 elder tre leavs beat them well together
 mixe therwith wheat flour and honye
 vnto it be plaister like and if thow cannot
 get burtre leavs It will do well with
 the other things or with the grene bark
 of burtre /

FOR THE GOWTE TO PUT AWAYE
 THE ACHE THEROF

Taik the bark of an oke slape or put awaie the

f. 111r

4371 slipperie] HB. *bot. marg.* And **4402** burtre] HB. *bot. marg.* For

vpper Rynde therof burn it with the bark
and quenche it in vinagre stamp it to
powder blend it with the yolk of an egge
Lay it to the gowte thre or iiij^{or} tymes./

4410 For him or her that pisseth against their
will Taik the bladder of a gote shepe or
oxe drye it till you may maik powder
therof and drink that powder when ye
go to bed with water aile or wyne; also
It is good to drink the water or ale
wherin akorns are well sodden./

4420 To help a woman to her flours drinke the
wyne that origanum hathe bene well sodden
in, also madder ground with oyle and into
a verie thyne lynnен Clothe maid in a role
as bigg as thy finger and put into the womans
pryvitie diuers nights And the root of a
leyk in lyke manner

[LATIN]

TO MAIKE A THICKE HEDDGE Taik beries of
hawthorne callid howes a bushell ij iij or iiiij
bushells according to the quantitie of the ground
which thow will hedge maik a pitt and bury
them in the ground and Cover them with

4430 Earthe half a yard thick or more that the
frost in winter cannot eat them and in much
twelve monthe after taik them vp then
maik a gryp of a spane depe and a
spane bread, Scater thy hawes in that
grip even as thow wilt haue the hedge
to go and cover them with fyne earthe
kepe wedes and catt all frome theim
the first, and second yeare and thow shalt
therof in few years haue a goodlie
4440 hedge do the like with eshe chatts
and it shalbe so

f. 111v

4440 chatts] rep. do the lyke with eshe chatts

4429 with] HB. bot. marg. earth

thick with trees that no man shalbe hable
 to get into thy ground for trees do the
 lyke with akorns and with barberies but
 it is sayde that barberies will growthe
 firste year without burying first in
 the ground, but thow had nede to sow
 those vpon a bed in thy garden and
 then remove them the first or second
 4450 year there thow wilt haue them but
 Thy eshes thow must kepe them frome
 Cattell, to tyme be that cattell be not
 hable to reche them frome choppinge

To maik read turisall Taike the leaves of
 read flowre growing in Corne Callid poppy
 and lynnен Clothe clene washid, do in a
 pott acorns of those leavs and then a corns of
 thy lynnен clothe and so one acorns after an
 other vnto the pot be full Then stopp thy
 4460 Pot surelie and cover it in moiste ground
 or els in a stable in horse doung by the spaice
 of thre monithes the longer the better Then
 taik it vp and thowe shalt fynde the clothe
 colorid read turnsall, In lyke manner
 maik blew turnsall. of blew flowrs growing
 in Corn callid bottell and yelow turnsall of
 bromeflours and when thow wilt occupie
 a grene turnsall taik one clothe of blew
 turnsall and ij of yelow and those mixid
 4470 will make a good grene and with theise
 maye you Colour all meats without danger
 For theise flowrs are nothing noysomme./

To maik read Turnsall Taike rype bryer
 berries stampe them and streyn out the iuce
 weat therin lynnен Clothes and dry them
 in the sonne./ Elder tre berries also bur-
 tre berries will do the same but thow
 must seithe the iuce of ether of them
 frome a pottell to a quarte and then

f. 112r

4456 in] *cancel.* thy



4480 weat therin thy lynnen Cloute./

TO MAKE /GRAYE\ SOPE, Taike ij bushell of bean
ashes or of wood ashes and sifte them on
a fair floore with one bushell of quick
lyme mixe them together Then do them
in a mashe fatt and fill vp the fatt
with hote water but se ther be a wispe
About the tapstaff in the bottome and let it
stand xxijij^{or} houres Then let it ran^e softly
Do this lye over the fyer and do ther
ijij or iiij old rotten shoes for that will
maik it graie and let it sethe together
iiij hours then put therto a pottell or iij
quarts of meat oyle and a pottell or more
of bay salt and let it seithe well together
and stor it with a slice. Then to knowe
when it is well taik vp a little with a
slyce of the vppermost and when it is
somewhat Could roll it in thy hande
and if it will not Role put in some-
what more salt and seithe it better and
when it will roll taik yt vp./

f. 112v

4490 ijij or iiij old rotten shoes for that will
maik it graie and let it sethe together
iiij hours then put therto a pottell or iij
quarts of meat oyle and a pottell or more
of bay salt and let it seithe well together
and stor it with a slice. Then to knowe
when it is well taik vp a little with a
slyce of the vppermost and when it is
somewhat Could roll it in thy hande
and if it will not Role put in some-
what more salt and seithe it better and
when it will roll taik yt vp./

To maik black sope./

Taik one part of wood ashes ij parts of
quick lyme. *id est.* vnslekid lyme and thre
parts of Common ashes depart them
into v vessels with holes in the bottom with
a wifle about euery top staff And put
hote water into the first vessell and when
it hathe stand a good space as it were
xij let it run softlye And that lye
cast on thy second vessell in lyke manner
and so on all thy vessels And it trowe
it best to heat the lye betwene euerye
vessell Then taik vj gallons of that lye
And one Gallon of oyle olyve And boyle

f. 113r

4498 hande] *cancel.* A

4486 wispe] HB. *bot. marg.* about 4514 lye] HB. *bot. marg.* and

them vj hours Then taik a litle with thy
slyce and put it on a tyle stone and let
it stand to it be Could yf it be black
ynoughe it is well If yt be not black
4520 ynoughe boyle it better Then put it in
barrells when it is as black as sope
which thow hast sene at merchants./

To kill Ratons

Taik freshe greace haver meale chese
and vnslekid lyme of euerie like muche
beat all together in a morter then maik
therof little balls and lay them where
the rats do hawnt, and they will eat
of them and dye Do water nere the
4530 Balls and a bottell of hay And thowe
shalt fynde parte of them dead in the
same haye./

To gild glas silver or
coper

Draw strong water of a *pound*. of vitrioll and
a *pound* of sal peter and dissolve in the said *water*
a noble weight of goold foil and as muche
of mercurie vive / thei growndei first together
and reched And when thow putes it into
the water thus reched thow shalt see the
mercurie dissolved into the water and the
goold lying in the bottom of the water in
a calp Than take 3. *pennywaights*. of sal armoniak and 3.
pennywaights. of sal peter and draw a water as thow.
didist before cast then therin that calp And
when it is dissolved / ioin thow thes *waters*
to gether And when thow wilt gilt any
mettell heet it a litill in the fier and
ley thervpone thie water so ioned with
4550 a fether and let it drye.

f. 113v

For the Sawce flewin

4533 glas] cancel. yar

Take dragance when he is moost brimmest
roote and all and drie it in the soone and
grind it into powder then take a quart
of reed rose water and put this powder.
therin and seeth it to a pint then kepe it
in a glas And with a fether anoint the sikk
at even and morne

oleum Rosarum

- 4560 Take 3 *pounds* of oilie olive and 3 *pounds and a half* of roses
and put therin to gether in a glas and then
hang the glass in a cawdron of water over
the fier And after strein it and so haist
thow perfyt oilie of Roses./

Oleum ovorum

Take the white of eggs and put them
in a pan over the fier and stir theim
with a stikk till thei wax reed then
take theim and wring oile owt of theim

- 4570 For the Sciatica

Take cold vrine a quantite and as muche
dreggs of ale and seeth theim in a cleane
vessell and Skome theim well and putt to
theim a quantite of wheat brane and as
mykell comen Salt cromes of sowre breed
ana. and boile them till thei be thick And
then plaster theim.

For the Colik or Stone

Take Carewey fenell spiknard Anice
4580 Synamon galang of ilk a *pennywaight. and a half.* gromell
an *pennywaight.* licores. an. *pennywaight.* Sene as muche as of
all the rest And make all in powder
and it is a Singuler powder for the
colik and stoone./.

f. 114r

Take. j pound. of tartar maid of lies of wyne put

4585 put] rep. put

4585 put] HB. ext. marg. *Oleum tartar*

theim in an erthen pott well auelled
and fier him stronglie vntill he coome
into salt Than let him be set in a moist
place till he relent into oile./.

4590 vse to eete vnsett leekes optima medicina
against it drink the Iuce of houseleek /
[LATIN]

Take a vine leeke and stamp it and
temper it with stail aisle and let the
patient drink a sponefull therof att
once. Also take rew and temper it with
salt and temper it with stale aisle or
water and gyve the patient to drink.

4600 Take Ache seed lyn seed and Coommyn
of ilk one alyke muche and temper theim
wel to gether, and gyve the sike with
hoote water to drink.

Take lyn cloots cleen wesshen and burn
it and make therof powder And take oil
of eggs. and anoint the soore and put þe
powder in the hooles when ye ar anointed

4610 Take a handfull of reed mint and a handfull
of commyn and stamp theim to gether a
litill and therwith cromes of soome breed
and temper that vp with fyne vinegre or
aleger so that it be thik and make a
plaister therof and then do it in a poket
of lin cloothe and chawf it at the fier to
it be hoote and then bind it to the stomak
as hoote as thow may suffer.

Take Ache and egrimons and stamp theim
wel together and doo therto boore grece

f. 114v

4590 medicina] HB. *ext. marg.* For the Stone **4591** houseleek] HB.
ext. marg. pissing bloode **4593** and²] HB. *ext. marg.* Colikk
4599 Coommyn] HB. *ext. marg.* For evell in the Stomak. **4603** burn]
HB. *ext. marg.* for a skaled pintill **4607** Take] HB. *ext. marg.* To
make a good Stomak **4616** Take] HB. *ext. marg.* for an evell bakk

and Asill and frie theim well and
therof a plaister and lay it as hoote as
the patient mai suffer to his soore
syde.

4620

Take leekes with the fasshes and all and
washe theim and Stamp theim and frie
theim in boores greece and make a plaister
and lai abowt the yerd./

Still water of the flowers of beans and
with this water anoint thi face hands
and neck

[LATIN]

4630

f. 115v

In the month of may when oxen go to
gras or be at pasture yea shall take
of their doung not to freshe, nor to drie
then distill it fair and softlie (to theend
it smell not of the smooke) into soome
vessell of glasse or earthe leded within
of the whiche doung will coome a
watter withoutt savour or evell smell,
which wilbe vere good to take of all
maner of spotts or blemishe in the

4640

face if you washe it with it morning
and evening you shall keepe that
water in a violl well stopped

Then take 3 or 4 Radishes suche as
men eate in salades cut them smal
and put theim into a violl And
fill vp the viol with wine greeke
or malmese or other good white wine
letting it stand so in the sone and
aire a day and a night / Then take

4650

one parte of the wine twoo parts of
the said water of ox dung, half

4620 patient] *cancel.* my

4622 Take] HB. *ext. marg.* for a yerd þat is swoolen. 4626 Still] HB.
ext. marg. ad facie dealband 4638 which] HB. *ext. marg.* Stoone
4651 half] HB. *bot. marg.* a



a parte of the water of Strawbries. 2 or 3 dropps of the Iuce of lemonndes or Cytrons: And let there be of all thes waters so proportioned together. half a glasfull or soome-
 what moore into the which you shall put a peece of Sugerr, or a lytill honye rosett, for thone and thother seme
 4660 aswell to the savour, as to the perffit of the substance after this you shall put to it /a litill of the powder of an haire strangled and baked to powder *and* as muche as will lye ouer a groote And then gyve the patient drink of it and shortlie after thou shalt se a wunderfull efect. for many to whom I haue gyve of it haue not taried half an howre but thei
 4670 haue pissed in the whiche pissee thei haue found so many litill stones that all together came to the big-nes of a walnut /

Take 3 drams of tutia maid in powder vere small and as muche Aloe epaticum in powder twoo drams of fyne Sugerr. vj vnces of rose watter vj vnces of good white /wine\ mixe all this together and put it in soome cleane vessell of glas and being well cloosed and stopt set in the sunne a moneth together continuallie mixing and stirring together all the said things (at the least once a day to the intent thei may. incorporate well together This doone take of the same water and put certein dropps of it vpon your ees morning and evening and in continuing so a certain space

f. 116r

f. 116v

4676 of] HB. ext. marg. for the ees



4690 it will cause the sight to come again
as clere and as pure as it was before
And this was maid and ordained bi a
consultacione and counsell assembled
of the wisest and best phisicions of
all Italye.

Take 3 vnces of turpentyne first
wasshed in common water And then
in Roos or plaintaine watter, the
yolk of an egg an vnce and a half
of oile Rosett, of Sublimate half a
dragme, mixe all thes well together
and make therof a plaister, and
laie it vpon the woonde / And
bicause it drawethe soomewhat
make this defensyve Take twoo
parts of oile Rosett half a part
of vineger a litill boyle armonik
at your discrecione, mingle all to
gether and rubb within iiij or v figners
or moore rownd abowt the wounde
And hoold not the infected member
to frome the fier to the Intent
that whilste the deed fleshe is con-
suming and eting awaye, lay to yt a
litill band with butter and leave
it vpon the wounde a whoole day
and *you* shall see a *mervelous* thing

4710
4720 Take the seede or buryes of Ivie that
groweth on trees or walls, and not of
that whiche is founde low bi the ground
and *you* must gather the said buries veri
ripe and towardes the northe if
it be possible, if not take theim as *you*
may get theim, althoughe thei be
not vere ripe drye theim in the

f. 117r

4701 dragme] HB. ext. marg. old wound
defensatyve | to] HB. bot. marg. gether
pestilence

4708 at] HB. ext. marg.
4724 be] HB. ext. marg.

- shadow and kepe theim in a box
 of woode as a precious thing, and
 if any be infected with the pestilence
 take of the said beries and beate
 4730 theim to powder in a cleane morter
 and give the patient of the said
 powder in a glasse full of white
 wine, as muche as a man may lay
 vpon a groote or moore: then cover
 him in his bedd and make him swete
 ivell / This doone chaunge his shert
 and sheets and other coverings of
 his bed if it may be, if not yet
 his shirt and sheets. some having
 4740 taken of this powder over night
 founde theim selfs so well in the
 morning that thei roose vp and
 clethed theim selfs and walked
 abwt their chamber take this
 morning and evening./
- Take manie seedes to gether and
 set theim in goots doung And let
 theim grow and Ripe And you shall
 see a meravelous thing./
- 4750 Take Rew and stamp it, and lay
 it vpon the swollen codds and
 immediatlye it will asswage ther
 swelling which thing is sufficientlie
 proved
- Take wheat bran and seath it with
 the Iuce of Rew and lay it vpon
 hir breests that be hardened after
 hir liyng downe And thei wil wax
 soft and supple /

f. 117v

4742 and] *cancel.* che

4746 Take] HB. *ext. marg.* To make leeks | grew bigg **4750** Take]
 HB. *ext. marg.* Coddes swollen **4755** Take] HB. *ext. marg.* for the
 harding | of women breasts

- 4760 take litill noosgays of colwoorth and
 put theim in sething watter and
 let them be in it after it haithe
 begone to boile while a man wil goo
 v. or. vj pases, then take theim owt of
 the water and stamp theim, and take
 the Iuce of theim, and streane it through
 a lynning cloothe, and kepe it in an
 earthen vessell the space of a night
 in the eare abroode then put to yt
 soome cornes of salt and a lytill
 commyn cut small and mynced./
 now he that will purge him self
 and take this medycine, must goo
 to bedd superlesse, and washe well
 his leggs hands and armes with hoote
 watter, and drink the Ivce so made
 in the morning and walk vpon it
 3 or 4. howres, and when he haith
 lust to vomitt, let him vomit and
 he shall cast vp so muche cholerr
 and flewme that it shalbe a mer-
 velous thing to se And it will also
 purge the heede./
- 4770 Take a pott full of the leaves of
 yve couered and close pasted with
 drie donghe and set it in a hoote
 oven vntill the leaves will powder
 drink a lytill fyt in warme ale
 even and morne after / *probatum*.
- 4780 Take a pound of new yalew wax or as
 muche as you will and let it melt on the
 fier in a cleane pan And then poore yt
 into another pan or dishe wherin must be
 malmesey muscadell or other whyte
 wyne that is vere good. after take it
- f. 118r
- f. 118v

4760 take] HB. *ext. marg.* To purge | colour and | flewme /
4762 haithe] HB. *bot. marg.* begone **4784** of²] HB. *ext. marg.* for the
 stone | and colyk

owt of the wine, and melt it again / then
 powder it again vpon the said wine
 doing so vij tymes then take the said
 wax and melt it on the fier mixing
 4800 with it a handfull of breek finelye
 beaten, incorporate all well together
 and put it into a croked nekk viol of
 glasse claid abowt vp to the middes of
 the nekk and let it first distill with
 a litill fyre bi the space of 8 howres
 and after make *your* fier greter and at
 the end vere great: and the sides and
 iounts of the recepient, must be well
 cloosed. And after all is coold put the
 4810 water into a violl well stopped with
 wax and cired cloothe so that in noo
 case it may take vent nether must it
 be set wheare the heat of the sune ar
 fier may coome to it The said licour
 is mervalous good for all kinde of wounds
 and you must weat and moist the
 wound with it and bind vpon it
 a peece of lynnен cloathe steped in
 the said watter. And this wax parted
 4820 on a gent who said a soore hurt in
 the wrest of his foote being a dan-
 gerous place and heled him in 2.
 days so that the place where the
 soore was coold skantlye be seene
 and it is good for shronken synews./

Taike the Iuce /of valerian\ of read dokens and
 as muche iuce of barbery bark
 and a grene goos turde and
 meng them together with something
 that will take away the smell.

4830

4797 powder] *emend.* power

4799 wax] HB. *ext. marg.* new sores **4828** and^{1]}] HB. *ext. marg.*
 Iawnes yelew

and caste thereof and swallow yt.

Take barley and seith yt in fair
water and so seith yt in thre sundrie
waters and then lay yt in a lytill
pokket as hoote as ye can to *your* bakk.
but first take a lytill venece turpen-
tyne pourge in roose water and menged
with sugar and swallow yt

f. 119r

4840 Take to one pound of wax 3 *ounces*. of clere
turpentine in somer and 4. *ounces*. in winter
melt them to gether vpon a soft fier
and then taking yt fro the fier, when
it is a lytill coold put into it an *ounce*
of Salat oyle and an *ounce* of vermilyon
wel ground on a marvell stoone mixing
and stirring them well all together
but soome in steed of vermilyon put
in reed leed but then in the steed
of the *ounces* of vermilyon their must be
4850 3 *ounces* of reed lede And in like maner
may you make grene wax if in stede
of vermylion you take an *ounce* of grene
coperouse fynelye grownd
for the toothe ache Take a litill blak woole
and weete it in the iuice of plantane and
put it into that eare of which side the toothe
that troublethe *you* is and lye downe with
that side vpward And it will not
pain *you* but with noise as though yt
4860 thondered And in the space of an howre
take forthe the woole and *you* shall perceave
that the humor is drawnen that way:
and therfore with soome cloothe clence the
eare of suche bloode matter as shal appere

4831 yt] HB. *bot. marg.* Also take as muche tracle as a chesnutt and half avnue of Saffron incorporate theim well together and put theim into a white onyon having the goer first pyked forth at the topp which *you* must rooste against the fier and then strein yt through a cloothe and Take it thre morninge fasting / **4833** sundrie] HB. *ext. marg.* for the stoone | and heat in | the bakk **4845** mixing] HB. *ext. marg.* Wax

and further if you take a lytill mastyke and
 with a warme knife Smeare it vpon a peece
 of velvet of iij *pounds* breadeth and lay it so warm
 vnto that side of your paine is of and namelie
 vnto that place of the face which thei vse to
 break for the migrim and as nyghe as you can
 vpon the vain which fedethe the pained toothe
 and yt will scauer the humour.

4870 for the same purge the heede with cochee
 and vj gargarices and if it coome of any
 coold cause chew in thi mowth dyvers
 tymes the roote of horehownd And if yt
 come bi woormes make a
 candel of wax with henbaine seedes and
 light it and let the perfume of the candell
 4880 enter into thi toothe and gape over a
 dishe of coold watter and than may you
 take the woormes owte of the water
 and kill theim

when *your* greweng of coold cometh go to
 bed And let one lay to *your* naked sooles
 of the feete humblelie rootes wesshed and
 pared Snayles gray pyked forthe of
 the shells. and a lytill bay salt all
 powdred to gether and laid on a
 4890 blew clowt. yt wilbe so coold the
 patient cannot wel suffer yt but lay
 above it warme cloothes and get heet
 into his feete so soone as you can And
 do this twise or thrise at the mooste
 I haue knownen manye cured with the
 fyrst laing to./

for the crampe when it begininthe
 say thes woordes Bero Berto Bertoro.
 tryes and by godes help the pain shal eas.
 4900 or anoint the members greved with fox greace

f. 119v

4877 come] *cancel.* of a hoote cause

4885 bed] HB. *ext. marg.* Fever **4898** say] HB. *ext. marg.* Cramp

Take a blew woollen /clothe\ as muche as will lapp.
 abowt thi knee or leg And then take the
 whyte of thre hen eggs being well bet
 in a dishe and spreede it on a cloothe
 then take the yolkes and heate theim in
 a dishe and put thereto bolak soope as
 muche or moore and beete them wel
 together and make therof a salve and
 spreed it thick vpon the cloothe on
 4910 the white of the eggs and lapp it abowt
 the kne or legg and rowle it above
 and let it lye thre days and it will
 fetche awai the Swelling and ache

f. 120r

[LATIN]

*Take. conserv. rosarp. antiq. ij ounces, id est. twoo owncs
 conserv. Cumph. id est. comfra. vj ounces, vi ounces and six
 drams. semen galitri vi ounces, glare j ounce. id est. one
 drame semen Acetoselle vi ounces sorrell an ounce and a half.
 id est.*

4920 half a dram / diarodon Abbats. Imp /or\ . *id est. bure
 scruples . in serap mirtillop. id est. of mirtills*

*9. scruples. id est. quantum sufficit misse fiat elec-
 tuare deanratum s. a. id est. scound artem
 take in the morning fasting as muche of
 the powder as a walnut and put yt
 in posset drink of white wyne with a
 lytill sugar in yt And the next morning
 take lyke quantite of the electuarie*

f. 120v

*vntill you haue drunk all the powder
 and eten or swalowed the electuarie
 and forbeere meat after everi receat
 twoo howrs*

Take 9. busshells good malt and take a pekk
 or more of yt which pek you must causei to
 be grownd great vj ounces but spelked And
 kepe it to thi vse / now you must haue
 a leed or great caldron 2. maskfats a

4904 cloothe] HB. ext. marg. knees or leggs | swollen 4915 owncs]
 HB. ext. marg. for the stoone | and strangurye



large tronghe or. 2. a colere or 2. and
 a fair gylefatt Then take and fill *your*
 furnes with 30 *gallon* water /and strew
 a handfull of your malt on it and\ cover it and
 seeth yt And also haue vj or 7. *gallons*. more
 redye hoote And now when your water
 in the furnes haith sooden enoughe take it
 forthe and put it into thone of *your* fatts
 together with the said vj or 7. *gallons* aforesaid
 for the malt will drink vp almost /as muche\ of
your licour Then put vpon the said water
 3. *pounds*. of *your* said grownd malt letting it
 stand soo an howre or moore without
 styring And immediatlye vpone the emptijng
 of your furnes haue redye 30 *gallons* moore which
 you must seethe as the fyrst Then pull vp
your tapp. and let the fat rune into a
 tronghe Then take *your* last 30 *gallons*. and cast
 it on the said grains and so let yt stand
 Then take *your* fyrst licour and seyth yt in *your*
 furnes a quarter of an howre putting a good
 handfull of hopps to yt Then take the same
 licour and powre it into *your* second fat
 and cast other 3 *pounds*. of *your* said malt on it
 and when it haith stand a while let yt
 rune and keele and carie it away for good
 woorte Then let *your* second lycour rune
 and sethe it in the furnes again And after
 cast yt on thother grains in thother fatt
 and after yt haith stoode a while let yt rune
 And sethe yt a quarter of an howre with a
 handfull of hopps And in the meane tyme
 emptie thoone of *your* fatts And then powre
 into yt that lycour And cast of yt the last
 3. *pounds*. malt and let yt stand and then rune
 and carie yt also awaie for good woort And
 when booothe *your* woorts ar coold enough: *you*
 may put theim together / And to make *your*

f. 121r

4943 redye] HB. ext. marg. To make | Aile 4973 And] HB. ext. marg.
 Aile

small aile or beere take xvi *gallons*. water and warm
it in *your* furnes and then powre yt vpon
your woort granes and let it rune And.
then seeth it in *your* furnes and powre it
4980 vpon *your* best granes and let yt remaine
an howre and then let yt rune keele
and put it to barnne /

And now to make *your* good woorte
perfite aile take 2 or 3. *gallons*. water and
seethe vere well always
stirring And when yt haythe so sodden
2 howrs /and vnto all the white aboue haith
soden yn\ take it of and let yt keele *and*
then powre the rest when it is coold into the
4990 gylefat with soome barme and a *quarte* or 2.
of your good woorte and when yt worketh
put in moore woorte vj *pounds* bi a pottell
and galon for the moore stronglier yt
woorketh. the more boolder *you* may be
to put it in And so vntyll *you* haue
all letting yt remaine in the gylefat
day And then *you* must clence
yt vp throughe a small sief or riddell
into *your* vessels putting wine barme
5000 vpon it

And if *your* aile or beare be sower *you*
may hing a new laid egg. in yt reching
so nere the bothome of your vessell as *you*
well may so that *you* towche not the
bottome And yt shall persiue *your* beare
or ale yea a moneth that yt shalbe
no sowler then when *you* put *your*

f. 121v

4984 and] *cancel.* the said peck of spelked malt or moore And put a
pinte of raw grout vnto it which is thus made take a *quarte* or pinte of
water and a litill spelkt malt and seeth yt well let it stand after yt is
soden in soome erthen pot 3 or iv. days and let it **4988** and²] *cancel.*
take a *quarte* of yt and kepe in a erthen port vnto the next tye (as *you*
do leven) **4998** yt] *cancel.* p

4996 gylefat] *lac.*



egg into yt

Seeth it and then put it into a wood barrell
for the same purpose And when it is coold
enough which you may know by weting your
sterrer and put or clap a litill malt by it
and then put into the water and if
your malt go cleane of your sterrer it is coold
inouge. let not then put all your spelked malt
into it and also your raw growt with the pot
and all that it was in and then stirr it and
cover it and let it stand all the night And
then take forthe soome /of\ yt into your said pott
against the next tyme And if yt be over tart
water and malt to yt And then in the morning
you must seeth yt on the fyre.

5013 put] *cancel.* a litill





3.3. The compilation of the glossary of H135

The present section provides a glossary of the words in H135, which will certainly help the reader understand its contents. Therefore, nouns, verbs, adjectives and adverbs are included, while pronouns, prepositions, determiners and conjunctions have been discarded as they do not represent a difficulty for the reader, who is expected to be acquainted with the foundations of early Modern English morphology.

In order to compile such a glossary, the words were exported to an Excel spreadsheet (Figure 3.6). In this spreadsheet, each word was assigned an ID number so that it could be allocated in the text, and some columns were added to be filled with their correspondent information: Lemma (the entry of the glossary under which the word will appear), Word Class (i.e. noun, verb, adjective or adverb), Folio, Face and Meaning.

ID	Word	Lemma	Word Class	Folio	Face	Meaning
1	THE	the, d	Dete	34	r	The
2	heade	head, n	Noun	34	r	Head
3	happenithe	happen, v	Verb	34	r	To happen
4	to	to, p	Prep	34	r	To
5	be	be, v	Verb	34	r	To be
6	wounded	wound, v	Verb	34	r	To inflict a wound or wounds
7	in	in, p	Prep	34	r	In
8	divers	diverse, a	Adj	34	r	Diverse
9	manners	manner, n	Noun	34	r	The way in which something is done or takes place; method of action; mode of procedure
10	Somtyme	sometimes, b	Adve	34	r	Sometimes
11	w̄th	wirth, p	Prep	34	r	With
12	breakeinge	breaking, n	Noun	34	r	The action of breaking
13	of	of, p	Prep	34	r	Of
14	the	the, d	Dete	34	r	The
15	panne	pan, n	Noun	34	r	A vessel, of metal or earthenware, for domestic uses, usually broad and shallow; the skull, especially its upper part
16	and	and, c	Conj	34	r	And
17	somtyme	sometimes, b	Adve	34	r	Sometimes
18	w̄thoute	without, p	Prep	34	r	On the outside or outer surface
19	breakinge	break, v	Verb	34	r	To break
20	thereof	thereof, b	Adve	34	r	Thereof
21	And	and, c	Conj	34	r	And

Fig. 3.6. The compilation of the glossary

As observed in Figure 3.6, the ID number is necessary for words that may belong to different word classes, depending on their position in the sentence: *breakinge*, either a noun or a verb; or *be*, either a verb or a preposition (by). This information is particularly relevant when functional words were being lemmatised, as their ID number would allow us to find their position in the text and, therefore, their

word class would be determined. In addition, some of the lines in the Excel spreadsheet had to be modified. On the one hand, there were words that, despite separate in the text, represent a single lemma (i.e. *to gether*, *chicken mete*, *pia matter*, etc.). On the other, there were words in the text that, despite joined, represent two different lemmas (i.e. *shalbe*). These problems were solved by the addition or the deletion of the corresponding rows in the Excel spreadsheet.

Once the Excel spreadsheet was duly filled, the tool *Text Search Engine* (Miranda-García and Garrido-Garrido 2013) was used to automatically generate the glossary. The lemmas for each of the entries are taken from the *Oxford English Dictionary* (Simpson and Weiner 2004),⁸⁴ which appears in bold script in the glossary.⁸⁵ After it, the corresponding word class is italicized (*n.* for noun, *v.* for verb, *a.* for adjective and *b.* for adverb), followed by the meaning(s). Next, the different spelling variants are provided together with their frequency of occurrence.⁸⁶ Finally, whenever the initial letter(s) of a given spelling variant do(es) not coincide with those in the lemma, that variant is given an individual entry referring to its corresponding lemma, as in Table 3.1.

incurable , <i>a.</i> That cannot be cured; incapable of being healed by medicine or medical skill <i>vncurable</i> (4x)	<i>vncurable</i> → incurable
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Table 3.1. Glossary entries

⁸⁴ Whenever a word is not recorded in the *OED*, the *Middle English Dictionary* (Lewis et al. 1952–2001) was consulted.

⁸⁵ It must be noted that the Latin words in the texts have not been included in the present glossary unless recorded in the *OED* or the *MED*.

⁸⁶ Once the Excel spreadsheet was duly filled, the tool *Text Search Engine* (Miranda-García and Garrido-Garrido 2013) was used to automatically generate the glossary.



3.3.1. The glossary of H135

A

abide, *v.* To abide

abide (1x), abyde (4x)

able, *a.* Having the qualifications for, and means of, doing anything

hable (2x)

above, *b.* Above

aboue (46x), abouen (1x)

abovesay, *v.* To mention higher up on a document or page

abouesaide (2x), abouesaide (1x),

abouesayde (2x)

abroad, *b.* Broadly

abroad (1x), abroadde (5x), abrode (4x), abroode (1x)

abstain, *v.* To keep or withhold oneself, to refrain

Abstayne (1x)

abundance, *n.* Overflowing state or condition, overflow; superfluity; enough and more than enough

abundance (1x), habundance (1x)

access, *n.* A coming on of illness or disease, especially of sudden illness

axes (2x)

according to, *b.* In a manner agreeing with, consistent with, or answering to

according to (3x)

ache, *v.* To suffer pain or distress

ake (1x), aken (1x), akith (1x),

akithe (2x)

ache, *n.* A pain

ache (20x), ake (2x), eeke (1x),

iche (2x)

aching, *n.* A painful throbbing; a feeling of continued pain

aking (12x), Akinge (4x)

acorn, *n.* The fruit or seed of the oak-tree; an oval nut growing in a shallow woody cup or cupule

Acornes (1x), acorns (2x),

akorns (2x)

add, *v.* To add

addid (1x)

adown, *b.* To a lower place or situation

adowne (1x)

advise, *v.* To advise

advise (1x)

affodill, *n.* Name of a liliaceous genus of plants, Asphodel, or King's Spear (*Asphodelus*, incl. *Anthericum*), natives of the south of Europe, and grown as garden flowers and medicinal herbs

affodile (1x), affodili (1x),



- affodilie (1×), affodill (5×)
- afore**, *b.* Before
 afore (1×)
- aforesaid**, *a.* Mentioned, or treated of before or already
 aforesaid (2×), aforesaide (2×)
- afraid**, *a.* In a state of fear or apprehension, moved or actuated by fear
 affrayed (1×)
- after**, *b.* After
 after (125×)
- afterwards**, *b.* Afterwards
 afterward (4×), afterwarde (2×),
 afterwards (2×), afterwerd (1×)
- again**, *b.* Again
 again (30×), againe (26×), agayne (1×)
- age**, *n.* Age
 age (3×)
- agrimony**, *n.* A genus of plants (family *Rosaceae*), of which one species (*A. Eupatoria*), to which the English name is usually attached, is common in Britain
 Agremonie (1×), egremonie (2×), egremoyn (4×), egrimons (1×), egrymoin (1×)
- ague**, *n.* The name ague was apparently at first given to the burning or feverish stage, but afterwards more usually to the cold or shivering stage, as being the most striking external character of the disease
- Ague (8×)
- air**, *n.* Air; The transparent, invisible, inodorous, and tasteless gaseous substance which envelopes the earth
 aire (3×), eyr (1×)
- ale**, *n.* Ale, beer
 aile (19×), ale (24×), ayl (1×), ayle (3×)
- alegar**, *n.* Sour ale; vinegar formed by the acetous fermentation of ale
 aleger (1×)
- alembic**, *n.* An apparatus formerly used in distilling
 lymbeck (1×)
- alexanders**, *n.* An umbelliferous plant (*Smyrnium Olusatrum*), called also Horse-parsley, formerly cultivated and eaten like celery
 Alexander (2×), Allexander (1×),
 Allexandrin (1×), Saunders (1×)
- alias**, *b.* Otherwise; anohter name
 alias (2×)
- alike**, *a.* Like one another, similar
 alyke (1×)
- almaigne** → **germany**
- almanac**, *n.* Alamanac
 Almynak (1×)
- almighty**, *a.* All-powerful, omnipotent
 almightie (2×)
- almond**, *n.* Almond
 Almond (1×), almonds (1×),
 almonnes (1×)



almost, b. Very nearly, wellnigh, all but;	every ingredient
All-powerful, omnipotent	ana (10x)
almoast (1x), almoost (1x), almost (8x), almoste (5x)	
aloe, n. The fragrant resin or wood of the agalloch	anet, n. The herb Dill (<i>Anethum graveolens</i>)
Aloe (1x), aloes (9x), Aloyes (1x)	anet (1x)
alone, a. Alone	angletwitch, n. A worm used as bait in fishing; an earth-worm
alone (1x)	angell twaches (1x)
also, b. Also	anguish, n. Excruciating or oppressive bodily pain or suffering
als (2x), also (60x)	Angwishe (1x)
altogether, b. Entirely, wholly, totally, quite	anise, n. An umbelliferous plant (<i>Pimpinella Anisum</i>), a native of the Levant, cultivated for its aromatic and carminative seeds
alltogether (3x), altogether (5x)	Anice (1x), Annes (1x), annyouse (1x)
alum, n. A whitish transparent mineral salt, crystallizing in octahedrons, very astringent, used in dyeing, tawing skins, and medicine	aniseed, n. The seed of the anise, used as a carminative, and in the preparation of Oil of Anise
allome (5x), Alom (1x), Alome (10x), alome roche (1x), roche allome (1x), roche alome (1x)	aniseedes (1x), Aniseeds (1x)
always, b. At every time, on every occasion	annoy, v. To trouble, irk, bore, weary
allwaias (1x), alwaie (1x), alwaias (3x), alwais (1x), alway (1x), alwayes (1x), always (1x)	noye (1x)
ammoniac, n. Ammoniac	anoint, v. To smear or rub over with an oil or unguent
amoniac (1x), armoniake (1x), armonik (1x)	annoint (33x), annointe (3x), annointid (5x), annoting (2x), annoyn (12x), annoyn (3x), annoynid (2x), anoint (12x), anointed (1x), annoynt (2x), anoyned (1x)
ana, b. Used in recipes in the sense of throughout, of each, of every one alike, in specifying a quantity applicable to	Anon, b. Straightway, at once,

forthwith, instantly	apple, <i>n.</i> Apple
anon (1×), annone (1×), anon (3×), anone (3×)	aple (1×)
antiochene , <i>a.</i> Of or pertaining to Antioch in Syria	apprinze , <i>n.</i> Seizure
Antioche (3×)	apreise (1×)
aposteme , <i>v.</i> To be affected with an apostem	ard , <i>n.</i> A primitive light plough
appostemid (1×)	arde (1×)
aposteme , <i>n.</i> A gathering of purulent matter in any part of the body; a large deep-seated abscess	arm , <i>n.</i> The upper limb of the human body, from the shoulder to the hand
apopostemes (1×), aposteme (3×), apostemes (3×), apostume (3×), apostumes (1×), apposteme (7×), Apostemes (5×), appostome (2×), appostume (4×)	Arm (3×), Arme (30×), armes (1×)
apostolicon , <i>n.</i> A reputed cure for all kinds of wounds	arm-hole , <i>n.</i> An arm-pit
Apostolicon (2×), apostolicum (1×)	arme hoooles (1×)
apothecary , <i>n.</i> One who kept a store or shop of non-perishable commodities, spices, drugs, comfits, preserves, etc.	arrow , <i>n.</i> A slender pointed missile shot from a bow, usually feathered and barbed
poticaire (1×), poticarie (3×), poticaries (1×)	arow (1×), arowe (1×), arrow (7×), arrowe (3×)
appear , <i>v.</i> To appear	arse , <i>n.</i> The bottom; the lower or hinder end
appear (3×), appeare (1×), appearithe (1×), appere (2×), pperith (1×)	ars (4×)
appetite , <i>n.</i> Craving for food, hunger	artery , <i>n.</i> One of the membranous, elastic, pulsating tubes, forming part of the system of vessels by which the blood is conveyed from the heart to all parts of the body
appetyte (1×)	arteries (7×)
	ash , <i>n.</i> Ash
	ashe (1×), ashes (8×), eshe (2×), eshes (1×)
	ashweed , <i>n.</i> The Goutweed (<i>Ægopodium Podagraria</i>)
	eshewood (1×)



aside, b. To one side; out of the way

asyde (1×)

Asill → hazel

ask, v. To ask

ax (1×)

assemble, v. To bring together into one place or mass, to collect

assembled (1×)

assuage, v. To soften, mitigate, calm, appease

asswage (1×), aswaige (1×)

assure, v. To make secure against change or overthrow

Assured (1×)

asthma, n. Difficulty of breathing

Asma (1×)

attempt, v. To make an effort, to use one's endeavour to do or accomplish some action

attempt (1×)

author, n. Author

Auctor (1×)

avell, v. To pull or tear away, pull up
auelled (1×)

avens, n. Popular name of two species of the genus Geum (family *Rosaceæ*), the Wood Avens or Herb Bennet (*G. urbanum*), formerly used medicinally and to give a clove-like flavour to ale

avance (2×), avaunce (4×),
avaunse (1×)

away, b. From this (or that) place, to a

distance

awai (2×), awaie (44×), away
(27×), awaye (14×)

B

back, b. Back

back (1×)

back, n. The convex surface of the body of man and vertebrated animals which is adjacent to the spinal axis, and opposite to the belly and most of the special organs

back (1×), bak (1×), bakk (5×)

backward, b. Towards one's back, or the back of anything

backward (1×)

bacon, n. The back and sides of the pig, cured by salting, drying, etc.

Bacone (1×), Bakon (1×)

bad, a. Bad

bad (1×), woorse (1×)

bag, n. A bag, pouch, small sack

bagg (7×), bagge (2×)

bake, v. To cook by dry heat acting by conduction, and not by radiation, hence either in a closed place (oven, ashes, etc.), or on a heated surface (bakestone, griddle, live coals)

baked (1×)

balk, n. A bar



balk (1x)	used to leaven bread, and to cause fermentation in other liquors
ball, n. Ball	barme (4x), barnne (1x)
ball (2x), balls (2x)	
ballock, n. A testicle	barrel, n. A cylindrical wooden vessel, generally bulging in the middle and of greater length than breadth
ballock (4x), ballocks (4x)	barrell (1x), barrels (1x)
band, n. A strip of any material flat and thin, used to bind together	<i>bartre</i> → bourtree
band (1x)	
banwart → bone-wort	basic, a. Basic
barb, n. The beard of a man	besic (1x)
barbes (2x)	
barberry, n. A shrub (<i>Berberis vulgaris</i>) found native in Europe and North America, with spiny shoots, and pendulous racemes of small yellow flowers, succeeded by oblong, red, sharply acid berries	bath, v. To immerse, as in a bath; to immerse (the body, or any part of it) in water or other liquid
barberie (1x), barberries (2x),	baithe (2x), bathe (1x), bathid (1x)
barbery (1x)	
bare, a. Unclothed, naked, nude	bath, n. A quantity of water or other liquid prepared for bathing
bair (1x), baire (1x), bare (4x)	bathe (1x)
bark, n. The rind or outer sheath of the trunk and branches of trees, formed of tissue parallel with the wood	battle, n. A fight
bark (10x), barke (5x)	battaille (1x)
barley, n. A hardy awned cereal (<i>genus Hordeum</i>), cultivated in all parts of the world	bay, n. A berry, a small fruit
barle (1x), barley (3x), barlon (1x)	bay (1x)
barm, n. The froth that forms on the top of fermenting malt liquors, which is	bay-salt, n. Salt, obtained in large crystals by slow evaporation; originally, from sea-water by the sun's heat
	bay salt (4x)
	bay-tree, n. Bay-tree
	bay tree (1x)
	be, v. To be
	ar (10x), are (40x), be (528x), bee (1x), being (14x), bene (13x), beyng (1x), is (467x), was (18x),

were (20x), ys (3x)	began (1x), begane (1x), begininge (1x), begininthe (1x), beginnithe (2x), begone (1x), begyn (1x), begyne (1x), begyninge (2x), begynnithe (1x)
bean , <i>n.</i> A smooth, kidney-shaped, laterally flattened seed, borne in long pods by a leguminous plant	
bean (4x), beans (2x), benes (1x)	
bear , <i>v.</i> To support the weight of (anything) whilst moving it from one place to another	
bear (2x), bearithe (2x), bering (1x)	bealye (1x), belie (1x), bellie (1x), bellye (1x)
beast , <i>n.</i> An animal	belong , <i>v.</i> To belong
beast (2x), beaste (1x), beasts (1x)	belong (1x), belonging (1x)
beat , <i>v.</i> To break, crush, smash, or overthrow by hard knocks	bent , <i>n.</i> A name given to grass of a reedy or rush-like habit, or which has persistent stiff or rigid stems
beat (5x), beate (2x), beaten (8x), beete (1x), bet (1x), bete (2x), beten (6x),bett (1x)	bent (1x)
bed , <i>n.</i> Bed	berry , <i>n.</i> Any small globular, or ovate juicy fruit, not having a stone
bed (15x), bedd (6x)	buries (1x), buryes (2x), beries (5x)
beef , <i>n.</i> The flesh of an ox, bull, or cow, used as food	besic → basic
beif (4x)	best → good
beer , <i>n.</i> An alcoholic liquor obtained by the fermentation of malt	bet(t)er → good
beare (2x), beere (1x)	betony , <i>n.</i> A plant (<i>Stachys Betonica</i>) of the Labiate order, having spiked purple flowers and ovate crenate leaves
before , <i>b.</i> Before	betonie (7x), betony (1x), betonye (1x), bytain (1x)
befor (1x), before (45x)	beware , <i>v.</i> To be cautious or on one's guard, to be wary
beforesaid , <i>a.</i> Mentioned, or treated of before or already	beware (4x)
boforesaid (1x), beforesaid (3x)	bid , <i>v.</i> To bid
begin , <i>v.</i> To begin	



bidde (1x)	bledder (2x), bledders (2x), bleder (1x)
big, a. Big	
big (2x), bigg (7x), bigge (1x), bigger (2x)	
bigness, n. Bigness	
bignes (2x)	
bile, n. The fluid secreted by the liver, and poured into the duodenum, as an aid to the digestive process	
byle (1x)	
bind, v. To tie fast; To make fast with a band or bond	
bind (7x), binding (1x), bound (4x), bownd (1x), bynd (5x), bynde (7x)	
birth, n. Birth	
birthe (2x), byrth (1x)	
biting, n. The action of the verb ‘bite’	
byting (1x), bytinge (1x)	
bitter, a. Bitter	
bitter (2x)	
black, a. The colour black	
Black (19x), blacke (2x), blak (8x), blake (1x)	
blackish, a. Somewhat black; inclining to black	
blackishe (2x), blakishe (1x)	
blackness, n. Blackness	
blacknes (3x)	
bladder, n. A membranous bag in the animal body	
bladdder (1x), bladder (3x),	
	bleede (9x), bleding (3x), bledinge (1x), bleede (1x), bleedinge (1x)
	blemish, n. Physical defect or disfigurement; a stain
	blemishe (1x)
	blend, v. To mix, to mingle
	blend (11x), blended (3x)
	blew → blue
	blister, n. A thin vesicle on the skin, containing serum, caused by friction, a burn, or other injury
	blisters (1x)
	blood, n. Blood
	blode (5x), blood (7x), bloodde (1x), bloode (12x)

blood-warm, *a.* As warm as blood; of the normal temperature of blood in the body

bloodwarm (1x)

bloody, *n.* Covered, smeared, stained, with blood; bleeding

blodie (1x)

blue, *a.* Blue

blew (7x)

boar, *n.* The male of the swine, whether wild or tame

boares (1x), boars (1x), boore (1x), boores (1x), bores (2x)

board, *n.* Board; A piece of timber sawn thin, and having considerable extent of surface

boord (1x), boorde (2x), bord (1x), bourde (2x)

body, *n.* The human body

bodie (15x), body (4x), bodye (5x), boody (1x)

beforesaid → **beforesaid**

boil, *v.* To boil

boil (1x), boile (12x), boiled (1x), bollen (1x), bollinge (1x), boole (1x), boyl (3x), boyle (50x), boylee (1x), boylid (9x)

bold, *a.* Stout-hearted, courageous, daring, fearless

boolder (1x)

boldly, *b.* Courageously, daringly, fearlessly

boldly (1x), booldlye (1x)

bole ammoniac, *n.* A soft friable fatty earth, usually of a pale red colour

bole armoneak (1x), bole armoniak (4x), boll armoniak (1x)

bolne, *v.* To swell

bolne (1x), bolned (1x), bolnen (1x), bolning (5x), BOLNINGE (1x)

bolster, *n.* A long-stuffed pillow or cushion used to support the sleeper's head in a bed

bolster (2x)

bolt, *v.* To fasten together; to sift; to pass through a sieve or bolting-cloth

bolt (1x), boultid (2x), bultid (3x)

bond, *n.* Bond

bond (1x)

bone, *n.* The general name for each of the distinct parts which unitedly make up the skeleton or hard framework of the body of vertebrate animals

bone (46x), bones (5x), boons (1x)

bone-wort, *n.* A name given, on account of their supposed bone-healing properties, to several different plants, as the common Daisy, Golden-Rod, Centaury (*Erythraea*), Yellow Mountain Pansy, Consolida minor, and Osmund



Royal or Flowering Fern	bartre (1x), burtre (12x), burtrie (3x)
banwart (1x)	
book , <i>n.</i> Book	bow , <i>v.</i> To assume a bent or crooked shape, position, or attitude
booke (5x)	bow (1x), bowe (2x), bowed (1x), bowid (1x), bowing (1x)
borage , <i>n.</i> A genus of plants, giving its name to a family (<i>Boraginaceæ</i>)	bowel , <i>n.</i> An intestine
borace (1x), borage (3x), burage (1x), burrage (1x)	bowell (6x), bowells (7x), bowles (1x)
border , <i>n.</i> A side, edge, brink or margin; the boundary line which separates one country from another, the frontier line	bowl , <i>n.</i> A round vessel to hold liquids, rather wide than deep
border (2x)	bowle (2x)
botch , <i>n.</i> A hump; a swelling; a tumour	bound → bind
boche (6x), boches (1x), bothes (1x)	box , <i>n.</i> A case or receptacle usually having a lid
both , <i>a.</i> The one and the other; referring to two specially designated persons or things	box (1x), boxe (3x), boxes (4x)
boothe (3x), both (1x), bothe (16x)	braid , <i>v.</i> To intermix
bottle , <i>n.</i> Bottle	braide (1x)
bottell (2x)	brain , <i>n.</i> The human brain
bottom , <i>n.</i> The lowest part of anything, considered as a material thing	braines (1x), brayn (1x)
bothome (1x), botome (1x), bottom (2x), Bottome (5x)	bramble , <i>n.</i> A rough prickly shrub; the blackberry-bush (<i>Rubus fruticosus</i>)
bought , <i>n.</i> A hollow angle or bend in the body	brymbell (1x), brymbull (1x)
bought (1x), boughtte (1x)	bran , <i>n.</i> The husk of wheat, barley, oats, or other grain, separated from the flour after grinding
bound → bind	bran (1x), brane (1x)
bourtree , <i>n.</i> The Elder-tree (<i>Sambucus nigra</i>)	brass , <i>n.</i> The general name for all alloys of copper with tin or zinc
	bras (1x)
	brown , <i>v.</i> To harden; to render callous
	brenninge (1x)

brawn, *n.* Fleshy part, muscle

brawne (2x)

bray, *v.* To beat small; to bruise, pound, crush to powder; usually in a mortar

braie (5x), bray (5x), braye (1x),
Brayed (1x), braying (1x), brey
(1x)

brazen, *a.* Made of brass

brasen (1x)

bread, *n.* Bread

bread (12x), breade (1x)

break, *v.* To break

break (6x), breake (8x), breaking
(2x), breek (2x), breeke (1x),
breke (1x), brekings (1x),
brekith (1x), broken (32x)

breaking, *n.* The action of breaking

breaking (2x), breakinge (8x),
breking (3x)

brears → **brier**

breast, *n.* Breast

breast (2x), breests (1x), brest
(3x), breste (1x), breasts (1x)

breathe, *v.* To breathe

breadeth (1x), breathe (6x)

breed, *v.* To breed

bredd (2x), brede (1x), bredithe
(1x), breed (1x), breede (2x)

breer → **brier**

breme, *a.* Celebrated, brilliant, clear, loud, distinct

brimmest (1x)

breming → **brimming**

bren → **brine**

brenninge → **brown**

brent, *n.* The smallest species of wild goose (*Bernicla brenta*), a winter visitant of the British coasts

brent (1x)

bresure → **bruise**

brey → **bray**

bridle, *n.* The head-gear of the harness of a horse or other beast of burden, consisting of a head-stall, bit, and rein, by which the animal is controlled and guided

brydle (1x)

brier, *n.* A prickly, thorny bush or shrub in general

brears (1x), breer (1x), brier (1x),
bryer (1x), bryere (1x), bryrie
(1x)

brimmest → **brem**

brimming, *a.* That rises to the brim of its vessel, basin, or bed; that fills to overflowing

breming (1x)

brimstone, *n.* The common vernacular name for sulphur

brimstone (1x), brymestone
(1x), brymstone (3x)

brine, *v.* To treat with brine: to steep, soak, pickle, wet, suffuse with brine

bren (2x)



bring, *v.* To bring

bring (6x), bringe (1x),
bringinge (1x), bringithe (1x),
brought (6x)

brisers → **bruise**

brisid → **bruise**

bristle, *n.* One of the stiff hairs that grow on the back and sides of the hog and wild boar

brystle (1x)

broad, *a.* Broad

broad (5x), brode (4x), broder
(1x), broode (1x)

brob, *v.* To prick, pierce, or poke

broben (1x)

broom, *n.* A shrub, *Sarrothamnus* or *Cytisus Scoparius* (family *Leguminosae*), bearing large handsome yellow papilionaceous flowers

brome (4x), broome (2x)

brought → **bring**

brow, *n.* The arch of hair over the eye

browes (3x)

brown, *a.* Brown

brown (1x), browne (1x)

brownwort, *n.* A name of the Water-Betony (*Scrophularia aquatica*), and perhaps other species of *Scrophularia*

brownwoort (1x)

bruise, *v.* To crush or mangle with the heavy blow of something not edged or pointed; to injure by a blow which

discolours the skin but does not lacerate it

brisid (2x), bruised (1x), bruse (6x), brused (1x), brusid (5x), Brusing (1x), brussing (1x), brysid (1x)

bruise, *n.* A hurt or injury to the body by a blunt or heavy instrument, causing discoloration but not laceration of the skin; a contusion

bresure (1x), brisers (1x), bryse (1x)

brust(en)(ing)(inge) → **burst**

brydle → **bridle**

bryer(e) → **brier**

brymb(ell)(ull) → **bramble**

brym(e)stone → **brimstone**

bryrie → **brier**

bryse → **bruise**

brystle → **bristle**

bud, *n.* A little projection found at the axil of a leaf, composed of scales, which are small leaves, and forming the rudiment of a branch, cluster of leaves, or blossom

buddes (2x)

bugle, *n.* The English name of the plants belonging to the genus *Ajuga*

bugle (2x)

bugloss, *n.* A name applied to several boraginaceous plants, particularly the small corn (*Lycopsis* or *Anchusa arvensis*)

buglos (2x)	bushel, <i>n.</i> A measure of capacity used for corn, fruit, etc., containing four pecks or eight gallons
bull, <i>n.</i> A bull	bushell (3x), bushells (1x), bussheells (1x)
bull (1x)	
bur, <i>n.</i> Any rough or prickly seed-vessel or flower-head of a plant	butter, <i>n.</i> The fatty substance obtained from cream by churning
bure (1x)	buter (1x), butter (20x)
burage → borage	button, <i>n.</i> Applied to various productions of art resembling a button in shape or function; a knob, handle, catch
burgeon, <i>n.</i> A swelling bud, a young shoot of a plant	button (5x)
burianes (1x), burions (1x)	buy, <i>v.</i> To get possession of by giving an equivalent, usually in money
buries → berry	gue (1x)
burn, <i>v.</i> To burn	byle → bile
burn (4x), burne (14x), burnet (2x), burnid (6x), burning (3x), burninge (4x), burnithe (1x), burnithh (1x), burnt (1x)	bynd(e) → bind
burning, <i>n.</i> The action of burning	byrth → birth
burninge (3x), burninges (1x)	bytain → betony
burning, <i>a.</i> Characterised by great heat, raging, violent	byting(e) → biting
burning (6x)	
burrage → borage	
burst, <i>v.</i> To break the outer covering and discharge the matter	C
brust (1x), brusten (1x)	
bursting, <i>n.</i> The action of bursting	caballine, <i>a.</i> Of or belonging to horses; equine
brusting (4x), brustinge (1x), bursting (1x)	caballyme (1x)
burtr(i)e → bourtree	cake, <i>n.</i> A mass or concretion of any solidified or compressed substance in a flattened form
bury, <i>v.</i> To bury	cake (3x)
bury (1x), burying (1x)	
buryes → berry	

calamint, *n.* A genus of aromatic herbs, *Calamintha* (family *Labiatae*), including the Common Calamint (*C. officinalis*)

calaminte (1x)

calamus, *n.* A genus of palms comprising many species, the stems of which grow to an extraordinary length, and form canes or rattans

calamus (1x)

calcine, *v.* To reduce to quick-lime, or to an analogous substance, by roasting or burning

Calcioned (2x), calcionid (1x), caltionid (1x)

caldron → **cauldron**

calewey, *n.* A kind of pear

Calwe (1x)

call, *v.* To name, give a name

call (1x), called (5x), callid (21x), callyd (11x)

Calophony → **colophony**

calp, *n.* Local name of a species of dark-grey limestone occurring in Central Ireland

calp (2x)

Calwe → **calewey**

camomile, *n.* The name of a composite plant, *Anthemis nobilis*, an aromatic creeping herb, found on dry sandy commons in England

camamile (1x), Camomile (1x), camomyle (3x)

camphor, *n.* A whitish translucent crystalline volatile substance, belonging chemically to the vegetable oils, and having a bitter aromatic taste and a strong characteristic smell

campher (1x), camphere (2x), Canfrey (1x)

can, *v.* Can

can (34x), cann (4x), cannot (18x), could (1x), gan (1x)

candle, *n.* A source of artificial light, consisting of a usually cylindrical body of wax, tallow, spermaceti, or other solid fat

candel (1x), candell (1x)

candy, *n.* Crystallised sugar, made by repeated boiling and slow evaporation, more fully called sugar candy

Candie (2x)

Canfrey → **camphor**

canker, *n.* An eating, spreading sore or ulcer; a gangrene

CANCERS (1x), Canker (35x), Cankers (11x), kanker (3x)

canker, *v.* To infect or consume with canker

cankered (4x)

canvas, *n.* A strong or coarse unbleached cloth made of hemp or flax, used as the material for sails of ships

canvas (8x), canves (1x)

cap, *v.* To provide or cover with a cap



cappid (1x)	case (1x)
caper , <i>n.</i> A shrub (<i>Capparis spinosa</i>) in habit of growth like the common bramble, abundant on walls and rocky places in the South of Europe	cassia , <i>n.</i> An inferior kind of cinnamon Casie (1x)
caperons (1x)	cast , <i>v.</i> To throw or cause to fall; to dispose, arrange
capon , <i>n.</i> A castrated cock	cast (25x), caste (1x), casten (2x), castene (1x), castes (1x), casting (3x), castithe (1x), casts (1x)
Caponn (1x), Capons (2x), Coipons (1x), copons (1x)	cat , <i>n.</i> Cat
caraway , <i>n.</i> An umbelliferous plant (<i>Carum Carui</i>): its small fruits, commonly called caraway-seeds, are aromatic and carminative	cat (1x), catt (1x)
careawae (1x), Carewey (1x)	cattle , <i>n.</i> A collective name for live animals held as property
carbuncle , <i>n.</i> A name variously applied to precious stones of a red or fiery colour carbunkle (1x), carbuckles (2x)	Cattell (2x)
care , <i>v.</i> To feel concern, be concerned, feel interest	cauldron , <i>n.</i> A large kettle or boiler caldron (1x), cawdrone (1x)
Care (2x)	cause , <i>v.</i> To be the cause of; to effect, bring about, produce
care , <i>n.</i> Care	cause (10x), caused (4x), causei (1x), causes (1x), causethe (1x), causid (10x), causithe (1x), causyd (1x)
care (1x)	cause , <i>n.</i> A cause
carnose , <i>a.</i> Fleshy	cause (12x)
carnosa (1x)	cauterize , <i>v.</i> To burn or sear with a hot iron or a caustic
carry , <i>v.</i> To transport, convey while bearing up	cautering (1x)
carie (2x)	cawdrone → cauldron
carve , <i>v.</i> To cut	cease , <i>v.</i> To come to an end; to stop, discontinue
cerven (1x)	cease (2x), cessithe (1x)
case , <i>v.</i> To enclose in a case	celandine , <i>n.</i> The name of two distinct plants, bearing yellow flowers
case (1x)	
case , <i>n.</i> An event, occurrence, hap	

Celandyne (1x), celidonie (3x),	chaife (1x), chauf (1x), chawf (1x)
celidony (1x), Celidonye (1x),	
celodonye (1x), celodyne (2x)	
celery tree, n. The tree of the celery, an umbelliferous plant (<i>Apium graveolens</i>) cultivated for the use of its blanched stalks as a salad and vegetable	
Cellertre (1x)	
celidony(e)(ie) → celandine	
celodonye → celandine	
celodyne → celandine	
Ceney → senna	
centaury, n. A plant, of which the medicinal properties were said to have been discovered by Chiron the centaur; two species were distinguished, <i>Centaurion majus</i> , and <i>C. minus</i>	
centin (1x), centorie (4x)	
cerecloth, n. Cloth smeared or impregnated with wax or some glutinous matter	
cired cloothe (1x), seerclothe (2x), sere clothe (1x)	
certain, a. Determined, fixed, settled	
certain (1x), certein (4x), certeyn (3x), certeyne (1x)	
ceruse, n. A name for white lead, a mixture or compound of carbonate and hydrate of lead	
ceruse (2x)	
cerven → carve	
chafe, v. To warm, heat	
	chafe (1x), chauf (1x), chawf (1x)
	chafing, n. That chafes chafing (4x)
	chair, n. Chair chaire (1x)
	chalk, n. Chalk chalk (1x)
	chamber, n. A private room, chamber chamber (4x)
	chance, n. The falling out or happening of events; the way in which things fall out
	chance (1x)
	change, n. The act or fact of changing chaunge (3x)
	change, v. To change change (2x), changid (2x)
	chapter, n. Chapter chapiter (1x), chapitour (1x), chapter (2x)
	char, v. To reduce by burning to charcoal or carbon; to burn slightly or partially, scorch
	charede (1x)
	charge, v. To load; to cause to bear, hold, or receive
	charge (4x)
	chat, n. A name given to the catkin, inflorescence, or seed of various plants chatts (3x)
	Chaw → jaw

cheek , <i>n.</i> The cheek	less allied
chekes (1×), chere (1×)	cheken wede (2×)
cheek-bone , <i>n.</i> The bone above the cheek forming the lower boundary of the orbits of the eyes	chicory , <i>n.</i> The plant <i>Cichorium Intybus</i> (family <i>Composite</i>), with bright blue flowers, found wild in the south of England, and elsewhere in Europe and Asia, and cultivated in various parts for its root; the plant <i>Cichorium Intybus</i> (family <i>Composite</i>), with bright blue flowers
cheke bone (6×)	Siccorie (1×), Sicurie (1×), xicorie (1×)
cheese , <i>n.</i> Cheese	child , <i>n.</i> Child
chese (1×)	child (5×), childe (4×)
cheken mete → chicken meat	chimney , <i>n.</i> The passage or flue by which the smoke from a fire or furnace ascends and escapes
cheken wede → chickweed	Chymney (1×)
chervil , <i>n.</i> A garden pot-herb (<i>Anthriscus Cerefolium</i> , formerly <i>Chærophyllosum sativum</i> , family <i>Umbelliferae</i>) the young leaves of which are used to impart an aromatic flavour to soups, stews, salads, etc.	chin , <i>n.</i> The chin
chervell (1×), chervile (1×), chervill (2×)	chin (1×), chyen (1×), Chyn (1×), chyne (2×)
chestnut , <i>n.</i> The large edible seed or nut of the chestnut-tree	choler , <i>n.</i> Bile as one of the four humours of early physiology, supposed to cause irascibility of temper
chesnutt (1×)	cholerr (1×), Coler (4×), colere (1×), colers (1×), coller (1×)
chew , <i>v.</i> To chew	choleric , <i>a.</i> Having choler as the predominant humour; of bilious complexion
chew (4×), chewid (1×), chewing (1×)	choleryke (1×)
cheyves → sheaf	chop , <i>v.</i> To cut with a quick and heavy blow
chicken meat , <i>n.</i> An old name for various plants, including endive	
cheken mete (1×)	
chickweed , <i>n.</i> A name now usually applied to a small weedy plant, <i>Stellaria media</i> (family <i>Caryophyllaceæ</i>), but formerly to many other plants more or	

chop (3x), Chopp (2x), choppid (1x), choppinge (1x)	clamyd (1x)
<i>Chores</i> → core	<i>clap</i> , <i>v.</i> To apply, place, put, set, or stick clap (1x)
<i>chy(e)n(e)</i> → chin	<i>clarify</i> , <i>v.</i> To make clear and pure Clarifie (1x), clarified (11x)
<i>Chymney</i> → chimney	<i>clat</i> , <i>n.</i> Seeds or pales sifted out of meal, bran Clate (2x)
<i>Chyves</i> → sheaf	<i>clean</i> , <i>a.</i> Clean clean (5x), Cleane (9x), clene (16x)
<i>Ciatica</i> → sciatica	<i>clean</i> , <i>v.</i> To make clean clene (1x), Clens (1x)
<i>cicotryne</i> → socotrine	<i>clean</i> , <i>b.</i> Properly, completely cleane (2x), cleen (1x), clene (16x)
<i>cicuta</i> , <i>n.</i> A genus of poisonous umbelliferous plants, represented in Britain by the Water Hemlock, <i>C. virosa</i> . Formerly a name of the Common Hemlock	<i>cleanse</i> , <i>v.</i> To make clean, purify, free from dirt or filth clence (2x), clens (5x), clense (1x), clensid (1x), clensing (1x), clenisithe (1x)
Cicotum (1x)	<i>cleanser</i> , <i>n.</i> One who or that which cleanses clenser (1x)
<i>cinnamon</i> , <i>n.</i> Cinnamon	<i>clear</i> , <i>v.</i> To make clear CLEARE (1x)
Sinamound (2x), Synamon (2x), synamond (2x), Synamound (1x)	<i>clear</i> , <i>a.</i> Bright, brilliant; translucent, pellucid, free from sediment cleare (1x), clere (2x)
<i>cinquefoil</i> , <i>n.</i> The plant <i>Potentilla reptans</i> (family <i>Rosaceæ</i>), with compound leaves each of five leaflets	<i>cleave</i> , <i>v.</i> To stick fast or adhere cleave (1x)
quint foyle (1x)	<i>close</i> , <i>v.</i> To stop an opening; to shut; to
<i>ciphac</i> → <i>syphac</i>	
<i>cipres</i> → cypress	
<i>citron</i> , <i>n.</i> An ovate acid juicy tree-fruit with a pale-yellow rind	
Cytrons (1x), sitrion (1x)	
<i>city</i> , <i>n.</i> City	
citie (2x)	
<i>clad</i> , <i>v.</i> To cover as with clothing	
claid (1x)	
<i>clam</i> , <i>v.</i> To smear, daub, or spread unctuous matter on	

cover in

cloos (1x), cloosed (2x), close
(1x), closid (1x), closyd (1x)

close, a. Closed, shut

close (5x)

closely, b. So as to leave no passage out
or in

closelye (1x)

cloth, n. A cloth

cloathe (5x), cloothe (8x),
cloothes (2x), cloots (1x), clote
(1x), cloth (3x), clothe (74x),
clothes (7x), clout (1x), cloute
(5x), cloutes (1x), clowt (3x),
Clowte (4x), clowtes (1x)

clothe, v. To dress

clethed (1x)

clove, n. One of the small bulbs which
make up the compound bulb of garlic,
shallot, etc.

cloves (1x), clovey (1x), clowes
(2x)

cloven, a. Divided lengthwise

cloven (1x)

clover, n. The common name of the
species of Trefoil (*Trifolium*, family
Leguminosæ)

colaver (1x), glover (2x)

clyster, n. A medicine injected into the
rectum, to empty or cleanse the bowels,
to afford nutrition

glistier (1x)

cnarelle → **knar**

coal, n. A mineral, solid, hard, opaque,
black, or blackish, found in seams or
strata in the earth, and largely used as
fuel

coale (1x), Coales (1x)

coal, n. Coal

coles (1x)

coat, n. Coat

cote (1x)

cochee, n. A certaine composition of
Pills, which purge the head very strongly
cochee (1x)

cock, n. The male of the common
domestic fowl, *Gallus domesticus*

cok (1x)

cockle, n. The name of a plant applied
to Lychnis (or *Agrostemma*)
cokill (1x)

Cocomber sede → **cucumber seed**

cod, n. The husk or outer covering of
any fruit or seed; the scrotum

cod (1x), coddes (3x), codds (3x)

coffin, n. A chest, case, casket

coffins (1x)

Coipons → **capon**

cold, a. Cold

Cold (10x), colde (8x), coold
(14x), could (13x), coulde (9x)

cole, n. A general name for various
species of *Brassica*

cole (1x)



Col(l)er(e) → choler

colewort, *n.* A general name for any plant of the cabbage kind, *genus Brassica*

colewoorte (1x), colwoorth (1x)

coliander, *n.* Applied to the Maiden-hair Fern (*Adiantum Capillus-Veneris*)

coliander (1x)

colic, *n.* A name given to severe paroxysmal griping pains in the belly, due to various affections of the bowels or other parts

Colik (2x), Colikk (1x), collick (1x), colyk (1x)

collop, *n.* A slice of meat fried (*frixa*) or broiled (*carbonella*)

collop (1x)

colophony, *n.* The dark or amber-coloured resin obtained by distilling turpentine with water

Calophony (2x), colophinie (1x), colophoine (1x), colophom (2x), colophome (1x), colophon (1x), colophonie (2x), Colophony (1x)

colour, *v.* To give colour to something
colorid (2x)

colour, *n.* Colour

Colour (1x), color (1x), colour (8x)

come, *v.* To move towards, approach

came (2x), come (21x), cometh (1x), coming (1x), comith (1x), comithe (7x), comme (9x),

commethe (1x), comminge (1x), commist (1x), commithe (2x), coome (8x)

comfortative, *a.* Strengthening, reviving (medicine, food, etc.)

comfortatyses (1x)

comfrey, *n.* The english name of *Symphytum officinale* (family *Boraginaceæ*)

Comfere (1x), comferie (1x), comfra (1x), comfrey (2x), conferye (1x), Cumph (1x)

comin → **cumin**

co(o)m(m)yn(e) → **cumin**

common, *a.* Common

Common (2x)

competent, *a.* Suitable, fit, appropriate
compitent (1x)

competently, *b.* Suitably; sufficiently, adequately

competently (1x)

conduct, *n.* A channel, passage
condyte (1x)

congeal, *v.* To congeal
congelid (1x)

conserve, *n.* A medicinal or confectionary preparation of some part of a plant

conserv (2x)

consider, *v.* To view or contemplate attentively, to survey, examine, inspect, scrutinise



consider (1x)	convenient , <i>a.</i> Suitable to the conditions or circumstances convenient (4x)
consolidation , <i>n.</i> The action of making solid, or of forming into a solid or compact mass	cool , <i>v.</i> To make cool; to cause to lose heat or become less hot
consolidation (1x)	cole (2x), Coole (1x)
consound , <i>v.</i> To heal, join together (wounds, fractures)	cool , <i>a.</i> Cool
consounde (2x), consowdid (2x), cosowdid (1x)	colde (1x)
consultation , <i>n.</i> The action of consulting or taking counsel together consultacione (1x)	copons → capon
consume , <i>v.</i> To burn up, reduce to invisible products, or to ashes consumid (3x), consuming (1x)	copper , <i>n.</i> One of the well-known metals, distinguished by its peculiar red colour
consumption , <i>n.</i> Wasting of the body by disease; a wasting disease	coper (1x)
CONSUMPTION (1x)	copperas , <i>n.</i> A name given from early times to the protosulphates of copper, iron, and zinc
continual , <i>a.</i> Incessant, perpetual continuall (1x)	coperas (1x), coperons (2x)
continually , <i>b.</i> Continually continuallie (1x)	copperous , <i>a.</i> Coppery
continuance , <i>n.</i> Keeping up, going on with, maintaining, or prolonging	coperouse (1x), coperows (1x)
Continewance (1x), continewnce (1x)	coral , <i>n.</i> A hard-calcareous substance consisting of the continuous skeleton secreted by many tribes of marine coelenterate polyps for their support and habitation
continue , <i>v.</i> To carry on, keep up, maintain	corall (2x)
continew (5x), continewe (1x), continuing (1x)	core , <i>n.</i> The dry horny capsule imbedded in the centre of the pulp and containing the seeds or pips of the apple, pear, quince, etc.
contrary , <i>a.</i> Contrary contrarie (4x)	Chores (1x), core (4x)
	coriander , <i>n.</i> An annual plant, <i>Coriandrum sativum</i> , family <i>Umbelliferæ</i> ,

with compound leaves and globose fruit
corriander (1x)

corn, *n.* The small hard seed or fruit of
a plant

Corn (1x), corne (2x), cornes
(1x), corns (1x)

corner, *n.* The meeting-place of
converging sides or edges
corners (1x)

corrosive, *a.* Having the quality of
corroding
corrosyve (1x)

corrosive, *n.* A substance that corrodes
by chemical action; an acid or the like
corrosives (1x), corrosyves (1x),
corrivcive (1x)

corrupt, *v.* To spoil or destroy (flesh,
fruit, or other organic matter) by
physical dissolution or putrid
decomposition
corruptid (1x), corruptith (1x),
corruptithe (1x)

corrupt, *a.* Infected or defiled by that
which causes decay
corrupt (9x)

corruption, *n.* Infection, infected
condition
corruption (7x)

costard → **custard**

costive, *a.* Suffering from hardness and
retention of the fæces
costif (1x), costiff (1x)

cotton, *n.* The white fibrous substance,
soft and downy like wool, which clothes
the seeds of the cotton-plant
(*Gossypium*)

cotton (2x)

cotyledon, *n.* A genus of plants of the
family *Crasulaceæ*, having thick
succulent peltate leaves; the British
species is *C. Vmbilicus*, popularly called
navelwort or pennywort

cotilbon (1x)

cough, *n.* A cough

cowghe (1x)

could → **can**

counsel, *n.* Consultation, deliberation
counsell (5x)

counsel, *v.* To give or offer counsel or
advice; to advise
counsell (5x)

count, *v.* To number, enumerate
cointid (1x)

cover, *v.* To cover
couered (1x), cover (9x), coverid
(1x)

covering, *n.* That which covers or is
adapted to cover, whether for
protection, shelter, concealment, or
adornment; a cover
coverings (1x)

cow, *n.* The female of any bovine animal
(as the ox, bison, or buffalo)
cow (3x)



cowslip, *n.* The common name of *Primula veris*, a well-known wild plant in pastures and grassy banks, blossoming in spring, with drooping umbels of fragrant yellow flowers

cowselopp (1x), cowsloppe (1x)

crab, *n.* The common name for decapod crustaceous animals of the tribe Brachyura

crabbe (1x)

crammes → **crumb**

cramp, *n.* An involuntary, violent and painful contraction of the muscles, usually the result of a slight strain, a sudden chill, etc.

Cramp (1x), crampe (1x)

crawl, *n.* The action of crawling; a slow creeping motion

crewlls (1x)

cream, *n.* The consecrated oil used in anointing

creame (1x)

crewlls → **crawl**

crook, *v.* To bend into an angular or curved form; to distort from a straight line; to curve

croke (1x), crooked (5x), crokid (1x)

crom(m)es → **crumb**

crop, *n.* The crop

crop (1x), cropp (1x), croppe (1x), croppes (6x), cropps (3x)

cross, *n.* A representation or delineation of a cross on any surface

cros (1x)

cross, *b.* From side to side, whether at right angles or obliquely; across, athwart, transversely

cros (1x)

crosswise, *b.* In the form of a cross; so as to intersect

cros wise (2x), crose wise (1x),

crosse wise (1x), croswise (1x)

crowfoot, *n.* A name for various species of *Ranunculus* or Buttercup, properly those with divided leaves

Crowfoot (1x)

Crudd → **curd**

crumb, *n.* A small particle of bread

crammes (1x), cromes (4x),

Crommes (3x)

cruse, *n.* A small earthen vessel for liquids; a pot, jar, or bottle

cruise (1x)

crush, *v.* To dash together with the sound of violent percussion, to clash, crash

crushid (1x)

crust, *n.* The outer part of bread rendered hard and dry in baking

crust (2x)

cucumber seed, *n.* The seed of cucumber

Cocomber sede (1x)



cumin, *n.* An umbelliferous plant (*Cummin Cyminum*) resembling fennel
comen (1x), comin (1x),
commyn (4x), comyn (2x),
comyne (3x), Coommyn (1x)

Cumpb → **comfrey**

cup, *n.* A drinking-vessel, or something resembling it
cupp (2x), cuppe (1x)

curable, *a.* Capable of being cured
curable (9x)

curd, *n.* The coagulated substance formed from milk by the action of acids
Crudd (2x)

cure, *v.* To heal, restore to health (a sick person of a disease); to treat surgically or medically with the purpose of healing
cured (1x), curid (1x), kurithe (1x)

cure, *n.* A particular method or course of treatment directed towards the recovery of a patient
cure (7x), cures (3x)

cushion, *n.* A case of cloth, silk, etc. stuffed with some soft elastic material, used to give support or ease to the body in sitting, reclining, or kneeling
quishions (1x)

custard, *n.* A kind of open pie containing pieces of meat or fruit covered with a preparation of broth or milk, thickened with eggs, sweetened,

and seasoned with spices, etc.
costard (1x)

cut, *n.* A stroke or blow with a sharp-edged instrument, as a knife, sword, etc.
cut (1x)

cut, *v.* To cut
cut (53x), cutt (5x)

cutting, *n.* The action of ‘cutting’
cutting (9x), cuttinge (3x)

cypress, *n.* The Sweet *Cyperus* or Galingale
cipres (1x)

cytrons → **citron**

D

daffodil, *n.* The same as affodill; the genus *Asphodelus* (formerly including some allied plants)

daffodill (1x)

daily, *b.* Daily
dalye (1x)

daisy, *n.* The daisy, the common name of *Bellis perennis*, family *Compositæ*, a familiar and favourite flower of the British Isles and Europe generally, having small flat flower-heads with yellow disk and white ray (often tinged with pink), which close in the evening

daisie (1x), dasey (1x), dasies (1x), dasyes (1x), dayse (1x)



dandelion, *n.* A well-known Composite plant (*Taraxacum Dens-leonis* or *Leontodon Taraxacum*), abundant in meadows and waste ground throughout Europe, Central and Northern Asia, and North America, with widely toothed leaves, and a large bright yellow flower upon a naked hollow stalk, succeeded by a globular head of papp

dandelyon (2x)

danger, *n.* Danger

danger (2x)

dangerous, *a.* Dangerous

dangerous (1x)

dare, *v.* To dare

dar (1x)

dark, *a.* Dark

dark (1x)

dart, *n.* A pointed missile weapon thrown by the hand

darte (5x)

dast → **dust**

date, *n.* The fruit of the date-palm (*Phœnix dactylifera*), an oblong drupe, growing in large clusters, with a single hard seed or stone, and sweet pulp

daites (1x), daits (2x), date (2x),
dates (1x)

day, *n.* The day

daie (45x), daies (47x), day (25x),
daye (16x), Dayes (19x), days
(5x)

deadly, *b.* Causing death, or fatal injury; mortal, fatal

deadlie (3x), deadly (1x)

deafness, *n.* The state of condition of being deaf

deafnes (1x)

deal, *n.* Dealing; intercourse

dele (2x)

dealing, *n.* Acting towards others; way of acting, conduct, behaviour

dalyeng (1x)

dea(l)t(b)ea → **deute**

death, *n.* Death

deathe (4x), dethe (2x)

debate, *v.* To abate; to beat down, bring down, lower, reduce, lessen

debate (3x), debatid (1x)

dede → **die**

deed → **die**

deep, *b.* Deeply

depe (5x)

deep, *v.* To make deep, deepen

depe (4x)

deep, *a.* Having great or considerable extension downward

depe (10x), deper (1x)

deepness, *n.* The quality of being deep, or of considerable extension or distance downwards, or inwards

depenes (1x)

defensive, *a.* Having the quality of defending against attack or injury



defensyve (1x)	ready, provide, purvey
deform , <i>v.</i> To deform	devise (3x), devised (1x)
deformid (1x)	
deintie → deute	
delay , <i>v.</i> To weaken by admixture (as wine with water)	dew , <i>n.</i> The moisture deposited in minute drops upon any cool surface by the condensation of the vapour in the atmosphere
delaie (1x), delay (1x), Delaye (1x)	dew (1x)
delicate , <i>a.</i> Delightful, charming, pleasant, nice	diacatholicon , <i>n.</i> Old term for a laxative electuary
Delicate (1x), delycate (1x)	diacatholicon (1x)
depart , <i>v.</i> To divide into parts, dispart	diachylum , <i>n.</i> A kind of ointment composed of vegetable juices
depart (2x)	diaculum (2x), Diaquilon (1x)
descend , <i>v.</i> To move or pass from a higher to a lower position	die , <i>v.</i> To die
descend (1x), descending (1x), discending (1x)	dead (9x), deade (2x), dede (1x), deed (1x), dye (2x)
despise , <i>v.</i> To look down upon	diet , <i>n.</i> A diet
Dispise (1x)	diet (4x), dyet (1x)
destillation , <i>n.</i> The action of converting any substance or constituent of a substance into vapour by means of heat, and of again condensing this by refrigeration into the liquid form, by means of an alembic, retort and receiver, or a still and refrigeratory	diet , <i>v.</i> To fix, prescribe, or regulate the food of (a person, etc.) in nature or quantity, for a purpose
distillacion (1x)	diet (1x)
deute , <i>n.</i> A kind of salve	digestion , <i>n.</i> Digestion
dealtea (3x), Deathea (1x), deintie (1x), dewte (8x), dewti (1x)	digestion (1x)
devise , <i>v.</i> To prepare with skill, make	dight , <i>v.</i> To perform, do
	dight (19x)
	dike , <i>n.</i> Extended to any water-course or channel, including those of natural formation
	dyke (1x)
	diligence , <i>n.</i> Constant and earnest effort to accomplish what is undertaken

diligence (1x)	dissolved (2x), dissolvid (1x)
diligently, b. In a diligent manner	distil, v. To subject to the process of distillation; to vaporize a substance by means of heat, and then condense the vapour by exposing it to cold
diligentlie (1x)	distill (3x)
dimple, v. To mark with, or as with, dimples	distillacion → destillation
dimple (1x)	dittany, n. A labiate plant, <i>Origanum Dictamnus</i> , called also <i>Dictamnus Creticus</i> or dittany of Crete; formerly famous for its alleged medicinal virtues
dinner, n. Dinner	dittain (1x), dittayn (1x), dytайн (1x)
dyner (1x), dynner (1x)	diverse, a. Diverse
dip, v. To put down or let down temporarily or partially in or into a liquid	diuers (5x), divers (6x), dyvers (1x), dyverse (1x)
dip (2x), dipp (3x)	diversity, n. Diversity
descending → descend	diuersitie (1x), diuersity (1x)
discretion, n. The action of discerning or judging	do, v. To do
discrecione (1x)	did (12x), didist (1x), do (58x), doe (6x), doest (1x), doing (2x), done (7x), donne (2x), doo (4x), doone (2x), doth (1x), dothe (6x)
disease, n. Illness, sickness	dock, n. The common name of various species of the genus <i>Rumex</i> (family <i>Polygonaceæ</i>), coarse weedy herbs with thickened rootstock, sheathing stipules, and panicled racemes of inconspicuous greenish flowers
diseas (5x), disease (4x), diseases (2x), diseses (1x), disseas (2x), dyseas (1x)	dock (2x), dockan (1x), dokan (1x), doken (1x), dokens (1x)
dish, n. A dish (made of glass, metal, or wood)	
dishe (10x)	
disobedient, a. Refusing or failing to obey	
disobidient (1x)	
Dispise → despise	
dissever, v. To divide into parts	
disseverid (1x)	
dissolve, v. To melt or reduce into a liquid condition	
dissolued (1x), dissolve (1x),	

doctor, n. Doctor	dozen (2x)
doctors (1x), doctouris (1x)	
doctrine, n. Instruction, teaching	
doctrine (1x)	
dog, n. Dog	
dogg (1x)	
do(u)ng(b)(e) → dung	
double, v. To make double	
dowbelid (1x)	
double, a. Consisting of two members, things, or sets combined	
dooble (3x), double (1x), dowble (5x), duble (1x)	
doublet, n. A close-fitting body-garment, with or without sleeves, worn by men from the fourteenth to the eighteenth centuries	
dublet (1x)	
doubt, n. Doubt	
dout (1x), dowt (1x)	
doubtful, n. Involved in doubt or uncertainty	
dowtfull (1x)	
dove, n. A bird of the <i>Columbidæ</i> , or pigeon family	
dove (2x), doves (2x)	
down, b. Down	
down (9x), downe (20x)	
downward, b. Towards a lower place or position	
downward (3x)	
dozen, n. A group or set of twelve	
	drachm, n. A weight approximately equivalent to that of the Greek coin. Hence, in Apothecaries' weight = 60 grains, or 1/8 of an ounce
	drachms (3x), dragme (1x), dram (1x), drame (1x), drames (1x), dramme (1x), drammes (1x), drams (3x)
	dragons, n. A popular name of the dragonwort, <i>Dracunculus vulgaris</i> (formerly <i>Arum Dracunculus</i>)
	dragance (1x), dragon (1x), dragons (2x)
	draught, n. A quantity used as a specific measure of something drawn, extracted, or taken up
	draught (4x), draughts (1x)
	draw, v. To draw; to cause (anything) to move toward oneself by the application of force
	draw (34x), drawe (6x), drawen (5x), drawethe (1x), drawing (3x), drawinge (3x), drawithe (3x), drawght (1x)
	dread, v. To fear greatly, be in mortal fear of
	dreade (1x)
	dream, n. A dream
	dreames (1x)
	dreg, n. The sediment of liquors
	dreggs (1x)

dressing, *n.* The action of dressing

dressing (1×)

drie → **dry**

drier, *n.* A thing that removes moisture

dryer (1×)

drift, *n.* A large mass of flowering plants

druff (1×)

drink, *n.* A drink

drink (16×), drinke (5×), drynk (2×), drynke (1×)

drink, *v.* To drink

drink (53×), drinke (28×), dronk (1×), dronken (1×), drunk (1×), drunken (6×), Drynk (2×)

drive, *v.* To drive

driving (1×), dryve (3×)

drop, *v.* To fall in drops or globules; to exude or distil in drops

drop (3×), dropp (1×), dropping (2×), droppith (1×)

drop, *n.* A drop (of a liquid)

drop (3×), drope (1×), dropps (3×)

dropsy, *n.* A morbid condition characterised by the accumulation of watery fluid in the serous cavities or the connective tissue of the body

Dropsey (3×), dropsie (3×)

dry, *v.* To make dry

drie (20×), dried (5×), drieth (2×), driethe (1×), dry (4×), drye (6×), dried (1×), dryeth (1×)

dry, *a.* Dry

drie (7×), drye (1×)

dryer → **drier**

dung, *n.* Excrementitious and decayed

matter employed to fertilise the soil

dong (1×), donge (1×), donghe (3×), doung (5×), dounge (1×), dung (1×), dunge (1×)

dura mater, *n.* The dense, tough, outermost membranous envelope of the brain and spinal cord

Dura mater (2×), dura matter (3×)

dust, *n.* Earth or other solid matter in a minute and fine state of subdivision

dast (1×), dust (1×)

dwell, *v.* To abide or continue for a time, in a place, state, or condition

dwellid (1×)

dye → **die**

dyet → **diet**

dyke → **dike**

dyn(n)er → **dinner**

dyseas → **disease**

dytайн → **dittany**

dyvers → **diverse**

E

each, *a.* Each

eache (1×), eche (30×)



ear, n. The ear	effect (1x)
ear (5x), eare (11x), eares (2x), ears (1x), eer (1x), ERRES (1x)	
earnestly, b. In an earnest manner	
ernestlye (1x)	
earth, n. Earth	
earthe (8x)	
earthen, a. Made of baked clay	
earthen (4x), erthen (3x), ethern (1x)	
ease, v. To give ease (physically) to; to render more comfortable, relieve from pain, etc.	
eas (1x), ease (3x), easid (1x)	
easily, b. Easily	
easelye (1x), easilie (1x), eassilie (1x), easylie (1x)	
easy, a. Easy	
easie (7x), easye (1x)	
eat, v. To eat	
eat (13x), eate (3x), eaten (2x), eete (1x), eten (1x), eting (1x)	
eder, n. Ivy	
edere (1x)	
edge, n. Edge	
edge (1x)	
eeke → ache	
eel, n. The eel	
eyle (1x)	
effect, n. Something accomplished, caused, or produced; a result, consequence	
	egg, n. Egg
	egg (30x), egg. (1x), egge (21x), egges (5x), eggs (6x)
	eggplant, n. A popular name for the <i>Solanum esculentum</i> , originally given to the white-fruited variety, but afterwards extended to that which bears the purple fruit or Aubergine
	erenwood (1x)
	egremone → agrimony
	egremoyn → agrimony
	egrimon → agrimony
	egrymooin → agrimony
	eisell, n. Vinegar
	eysell (1x), eysill (1x)
	elabour → hellebore
	elbow, n. The outer part of the joint between the fore and the upper arm
	elbow (2x), elbowe (4x)
	elder, n. A low tree or shrub, <i>Sambucus</i> <i>nigra</i> (family <i>Caprifoliaceæ</i>)
	elder (9x), eldertre (2x)
	elebore → hellebore
	elecampane, n. A perennial composite plant, Horse-heal (<i>Inula Helenium</i>), with very large yellow radiate flowers and bitter aromatic leaves and root; formerly used as a tonic and stimulant
	Elecampaña (1x), elecampane (1x), elicampana (1x)
	electuary, n. A medicinal conserve or



paste, consisting of a powder or other ingredient mixed with honey, preserve, or syrup of some kind

electuare (2x), electuarie (1x),
lectuarie (1x)

else, *b.* In another case, under other circumstances; otherwise, on any other supposition; if not

els (23x)

ember, *n.* A small piece of live coal or wood in a half-extinguished fire

ympers (3x), ymbres (1x)

embrocation, *n.* A liquid used for bathing or moistening any diseased part

embrocations (1x), embrocation
(4x)

emerod, *n.* A disease characterised by tumours of the veins about the anus

emerods (1x)

emplaister, *n.* An external curative application, consisting of a solid or semi-solid substance spread upon a piece of muslin, skin, or some similar material

emplasters (1x)

em plaster, *v.* To cover with a plaster
implastrid (1x)

empty, *v.* To empty

emptie (1x), emptijng (1x)

end, *n.* End

end (17x), endes (1x), ends (1x)

endive, *n.* The name of two species of Chicory (*Cichorium*, family *Compositæ*)

Endive (2x), endyve (2x)

enemy, *n.* Enemy

enemyes (1x)

engender, *v.* To produce, give existence to (living beings)

engendrid (1x), engendringe
(1x), engendrith (1x),
engendrithe (2x), gender (1x),
genderid (1x), gendrid (1x)

english, *n.* English

englishe (3x)

enlarge, *v.* To increase the size of (a material object); to add to, augment

enlarge (3x), enlarged (1x)

enough, *a.* Sufficient in quantity or number

enough (2x), enoughe (4x),
inougue (2x), ynough (9x)

ensemble, *v.* To bring together, assemble

enseblid (2x)

enter, *v.* The action of entering; the power or right of entering

enter (3x), entrid (1x)

entreat, *n.* The action of the verb entreat

intreat (1x), intreats (1x), nitreat
(1x)

erenwood → **eggplant**

epati(cum)(k) → **hepatica**

erbe → **herb**

erysipelas, *n.* A local febrile disease



accompanied by diffused inflammation of the skin, producing a deep red colour; often called St. Anthony's fire, or the rose

herisipula (2x)

escape, v. To escape

scape (1x)

eshe → ash

eshewood → ashwood

especially, b. In an especial manner; principally, chiefly

especially (1x)

etcetera, b. And the rest, and so forth, and so on

etc (1x)

euphrasy, n. A plant, *Euphrasia officinalis* (family *Scrophulariaceæ*), formerly held in high repute for its medicinal virtues in the treatment of diseases of the eye

eufor (1x), eufrace (1x), Ewfrace (1x), ewfraice (1x)

even, n. The latter part or close of the day; evening

even (14x)

even, b. Even

eaven (2x), even (22x)

evening, n. Evening

eaveninge (1x), evening (3x)

ever, b. Always, at all times; in all cases
euer (8x), ever (2x)

evermore, b. For all future time

euermore (1x)

every, a. Every

eueri (1x), euerie (23x), euery (31x), everi (1x), Everie (2x)

evil, n. Causing discomfort, pain, or trouble

evell (1x), evill (2x)

evil, a. Evil

eveill (2x), evel (2x), evell (2x), evil (2x), evill (1x), eyvill (1x)

evil, b. In an evil manner; ill

eveill (2x), evill (2x)

excellent, a. Excellent

excellent (2x)

excellently, b. Excellently

excellentlie (1x)

experiment, v. To have experience of; to experience; to feel, suffer

experimentid (1x)

experiment, n. The action of trying anything, or putting it to proof

experimente (1x)

expulse, v. To drive or thrust out from a place; to eject

expulsid (1x)

extremely, b. Extremely

extremelie (1x)

eye, n. The eye

ees (2x), eie (2x), eies (5x), eighe (1x), ein (1x), eine (2x), eye (12x), eyen (3x), eyn (2x), eyne (2x)



eyle → eel

eyr → air

ey(s)(ell)(ill) → eisell

F

face, *n.* The face

face (12×), facie (1×), faice (2×)

fail, *v.* To be or become deficient

failithe (1×), falid (2×)

fail, *n.* Fail

faile (1×), failie (1×), fale (1×),
Fayle (1×)

faint, *a.* Wanting in strength or vigour

faint (1×)

fair, *a.* Fair

faier (2×), fair (13×), faire (6×),
fare (2×), fayer (1×), feir (3×)

fall, *n.* A dropping down from a high or relatively high position, by the force of gravity

fall (12×)

fall, *v.* To drop from a high or relatively high position

fall (6×), fallen (2×), fallenn (1×),
falling (3×), fallithe (5×)

far, *b.* Far

far (5×), fare (1×), ferther (1×)

fash, *n.* The tops of carrots, turnips or mangolds

fasshes (1×)

fast, *v.* To make fast to something; to attach with bonds or nails; to bind together

fast (4×), fasten (3×)

fast, *b.* Fast

fast (20×)

fasting, *n.* Abstaining from food

fasting (11×), fastinge (2×),
fasturing (1×)

fat, *n.* Fat

fat (2×), fatt (4×), fatts (2×)

fault, *n.* Deficiency, lack, scarcity, want of

fault (1×)

feather, *n.* One of the epidermal appendages of a bird

fedder (1×), fether (12×)

featherfew, *n.* Feverfew; the popular name of *Pyrethrum Parthenium*

fetherfoye (2×)

feeble, *a.* Lacking strength, weak, infirm

feble (3×), febler (1×)

feeble, *v.* To become or grow feeble

febelid (1×)

feebleness, *n.* The state or quality of being feeble

feblenes (2×)

feed, *v.* To feed

fedethe (1×), feede (1×)

feel, *v.* To feel

feele (1×), fele (3×), felithe (1×)



feeling , <i>n.</i> The faculty or power by which one feels	feaster (1x), feasters (1x), festoures (1x), festure (1x)
fealing (1x)	
feet(e) → foot	
feir → fair	
felon , <i>n.</i> A small abscess or boil, an inflamed sore	
felon (2x), felonies (1x), felons (3x)	
femitorie → fumitory	
fence , <i>v.</i> To screen, shield, protect	
fence (1x)	
fennel , <i>n.</i> A fragrant perennial umbellifer (<i>Foeniculum vulgare</i>) having yellow flowers, cultivated chiefly for its use in sauces eaten with salmon, etc.	
fenell (4x), fennell (1x), fynkells (1x)	
fenugreek , <i>n.</i> A leguminous plant (<i>Trigonella Foenum Græcum</i>) cultivated for its seeds, which are used by farriers	
Femgrece (1x), Fennegreke (2x), fenngreke (3x)	
fern , <i>v.</i> To feed upon fern	
fern (1x)	
ferther → far	
fetherfoye → featherfew	
fervent , <i>a.</i> Hot, burning, glowing, boiling	
fervent (1x)	
fester , <i>n.</i> A superficial suppuration resulting from irritation of the skin	
feaster (1x), feasters (1x), festoures (1x), festure (1x)	
fetch, <i>v.</i> To go in quest of, and convey or conduct back	
fetchē (1x)	
fete → foot	
fether → feather	
fever , <i>n.</i> Fever	
fever (8x)	
feverfew , <i>n.</i> The popular name of <i>Pyrethrum Parthenium</i>	
feverfew (1x)	
few , <i>a.</i> Few	
few (4x), fewe (1x)	
field , <i>n.</i> Field	
feild (1x), feildes (1x)	
fig , <i>n.</i> The fruit of the fig-tree or <i>Ficus</i>	
figgs (2x)	
fill , <i>v.</i> To fill	
fill (15x), fillid (1x), fillithe (1x)	
film , <i>n.</i> A morbid growth upon the eye	
filme (1x), filmes (1x), fylme (1x), philme (1x)	
filth , <i>n.</i> Putrid matter, corruption, rottenness	
filthe (6x), fylthe (2x)	
find , <i>v.</i> To find	
find (2x), finde (3x), findes (1x), found (3x), founde (3x), fynd (4x), fynde (4x), fyndes (1x), fyndest (1x)	
fine , <i>a.</i> Of superior quality, choice of its	

kind	flank, <i>n.</i> The fleshy or muscular part of the side of an animal or a man between the ribs and the hip
fyne (20x)	flanks (1x)
finely, <i>b.</i> In a fine manner	
finelye (1x), fynely (1x), fynelye (1x)	
finger, <i>n.</i> Finger	
finger (19x), fingers (10x)	
fire, <i>n.</i> Fire	
fier (62x), fyer (36x)	
firmament, <i>n.</i> The arch or vault of heaven overhead, in which the clouds and the stars appear	
firmament (1x)	
first, <i>b.</i> First	
First (50x), Firste (15x), fyrst (2x)	
first, <i>a.</i> First	
first (14x), firstt (1x), Fyrst (4x)	
fist, <i>n.</i> The fist	
fist (1x)	
fistula, <i>n.</i> A long, narrow, suppurating canal of morbid origin in some part of the body	
fistula (9x), fistulaie (1x), FISTULE (13x), fistules (9x), fystule (1x)	
fit, <i>n.</i> A sudden seizure of any malady attended with loss of consciousness and power of motion	
fit (1x), fitt (5x), fyt (1x)	
flake, <i>n.</i> A blemish, flaw, fleck	
flakes (1x)	
	flank, <i>n.</i> The fleshy or muscular part of the side of an animal or a man between the ribs and the hip
	flanks (1x)
	flat, <i>a.</i> Horizontally level; without inclination
	flat (1x)
	flax, <i>n.</i> The plant <i>Linum usitatissimum</i> bearing blue flowers which are succeeded by pods containing the seeds commonly known as linseed
	flax (1x), flaxe (3x)
	flee, <i>v.</i> To run away from or as from danger
	fle (1x), flea (1x)
	fleme → phlegm
	flesh, <i>n.</i> The flesh
	fleche (1x), flesh (2x), fleshe (60x)
	fleshly, <i>b.</i> In bodily form, corporeally; as regards the body, in the flesh
	fleshie (1x), fleshlie (5x), fleshlye (1x)
	flewm(e) → phlegm
	fleure → flower
	flint, <i>n.</i> A kind of hard stone, most commonly of a steely gray colour, found in roundish nodules of varying size
	flint (1x)
	flix → flux
	flour, <i>n.</i> Flour
	floore (1x), flour (1x), floure



(2x), flowr (2x), flowre (12x)	(1x)
flower , <i>n.</i> A flower; the menstrual discharge	foot , <i>n.</i> The foot
flewre (1x), floore (1x), flours (3x), flowers (1x), flowre (2x), flowres (7x), flowsrs (2x)	feet (1x), FEETE (3x), fete (8x), foot (1x), foote (10x)
flush , <i>v.</i> To become suffused with warm colour; to become suddenly red or hot flushid (2x)	forbear , <i>v.</i> To abstain or refrain from forbeere (1x)
flux , <i>n.</i> An abnormally copious flowing of blood, excrement, etc. from the bowels or other organs	fore , <i>a.</i> Situated or appearing in front, or in front of something else
flix (2x), flux (1x)	fore (1x)
foil , <i>n.</i> Metal hammered or rolled into a thin sheet; often with the name of a metal prefixed	forehead , <i>n.</i> That part of the face which reaches upward from the eyebrows to the natural line of the hair
foil (1x)	forhead (1x), forheade (1x)
fold , <i>n.</i> A bend or ply, such as is produced when any more or less flexible object is folded	foresay , <i>v.</i> To say beforehand, foretell
fold (1x)	forehead (3x), forehede (1x), foresaid (17x), foresaide (5x), foresayd (3x), foresayde (1x)
folio , <i>n.</i> A leaf of paper, parchment, etc.	foreskin , <i>n.</i> The prepuce
folio (1x)	foreskyn (1x)
follow , <i>v.</i> To follow	form , <i>v.</i> To give form or shape to
follow (2x), folowing (2x), folowinge (1x), folowithe (1x)	forme (1x)
fomentation , <i>n.</i> The application to the surface of the body either of flannels, etc. soaked in hot water, whether simple or medicated, or of any other warm, soft, medicinal substance	former , <i>n.</i> The first mentioned of two; opposed to latter
fomentacion (3x), fomentacon	former (1x)
	forth , <i>b.</i> Forwards
	forth (2x), forthe (9x), furth (7x), furthe (78x)
	forward , <i>b.</i> Forward
	forward (1x), forwarde (1x), frowarde (1x)
	foul , <i>a.</i> Grossly offensive to the senses, physically loathsome

foule (2×), foulie (1×), fowl (1×), fowle (1×)	friend , <i>n.</i> Friend friend (1×)
found(e) → find	frontike → frantic
fox , <i>n.</i> A fox fox (2×), foxe (1×)	frost , <i>n.</i> Frozen dew or vapour frost (1×), Froste (1×)
frankincense , <i>n.</i> An aromatic gum resin, yielded by trees of the <i>genus Boswellia</i> , used for burning as incense frankencence (2×), frankencens (1×), Frankencense (1×), frankensence (8×), frankensens (1×), franksence (1×)	frothy , <i>a.</i> Full of, covered with, or accompanied by froth or foam; foamy frothie (1×)
frantic , <i>a.</i> Affected with mental disease, lunatic, insane; violently or ragingly mad frontike (1×)	fry , <i>v.</i> To fry Frie (4×), fry (1×), Frye (5×), frying (1×)
french , <i>a.</i> French frenche (1×)	full , <i>a.</i> Having within its limits all it will hold; having no space empty full (18×)
fresh , <i>v.</i> To make fresh freshe (1×)	fully , <i>b.</i> In a full manner or degree fullie (1×), fullye (1×)
fresh , <i>a.</i> New, in contradistinction to being artificially preserved freshe (14×)	fumitory , <i>n.</i> A plant of the <i>genus Fumaria</i> (or the related <i>Corydalis</i>) femitorie (1×), fumiter (1×), fumiterre (2×)
freshly , <i>b.</i> Newly; lately; recently freshlie (1×)	fundament , <i>n.</i> The lower part of the body, on which one sits; the buttocks fundament (7×)
fret , <i>v.</i> To consume; to rub, chafe freat (2×), freated (1×), freatid (1×), freating (1×), freatith (1×), fret (7×), frete (4×), freted (1×), fretid (2×), freting (1×), fretinge (2×), fretith (1×), fretithe (2×), frett (1×)	furnace , <i>n.</i> A boiler, cauldron, crucible furnes (7×)
<i>Frie</i> → fry	further , <i>b.</i> To or at a more advanced point of progress further (3×)
	further , <i>v.</i> To help forward, assist furthering (1×)
	fyer → fire
	fylme → film

fylthe → filth
fynd(e) → find
fyne → fine
fynely(e) → finely
fynkells → fennel
fyrst → first
fystule → fistule
fyt → fit

G

galbanum, *n.* A gum resin obtained from certain Persian species of *Ferula*
 gabanum (1×), galbanum (6×)
galingale, *n.* The aromatic root of certain East Indian plants of the genera *Alpinia* and *Kæmpferia*, formerly much used in medicine and cookery
 galang (1×)
gall, *n.* The secretion of the liver, bile
 gall (8×), galles (1×)
gallon, *n.* An English measure of capacity
 gallon (10×), gallons (10×), galon (2×)
gan → can
gape, *v.* To open the mouth wide in order to bite or swallow anything
 gape (2×)
garden, *v.* Garden
 garden (1×)

gargarise, *n.* A gargle
 gargarices (1×)
garlic, *n.* Garlic
 garlik (2×)
garth, *n.* A small piece of enclosed ground
 garthe (1×)
gather, *v.* To collect as harvest or annual produce
 gather (1×), gathering (1×),
 gether (3×)
gave → give
gean, *n.* The wild cherry (*Prunus avium*), tree and fruit
 geen (1×)
gelie → jelly
gender, *n.* Kind, sort, class
 genders (1×)
gend(er)(erid)(rid) → engender
general, *a.* General
 generall (1×)
gent, *n.* A man of gentle birth, or having the same heraldic status as those of gentle birth
 gent (1×)
gentle, *a.* Noble, excellent
 gentle (1×)
gently, *b.* In a gentle manner
 gentlye (1×)
germander, *n.* The name of the plants of the genus *Teucrium*
 germander (1×)



germany, n. Germany	glasfull (1×)
almaigne (1×)	
get, v. Get	glister → clyster
get (18×), gett (2×), gotten (2×)	glover → clover
gether → gather	glow , v. To be heated to the point of incandescence
gild , v. To cover entirely or partially with a thin layer of gold, either laid on in the form of gold-leaf or applied by other processes	Glowid (1×)
gild (1×), gilt (1×)	gnash , v. To strike together or grind the teeth
ginger, n. The rhizome of the tropical plant <i>Zingiber officinale</i> , remarkable for its hot spicy taste	knashe (1×)
ginder (1×), ginger (5×), gynger (3×), ȝinȝiberis (1×)	gnaw , v. To bite persistently so as to injure it or remove portions of it
give, v. To give	gnawithe (1×)
gave (1×), giue (11×), give (6×), gyve (12×), gyven (2×)	go, v. To go
gladen → gladiolus	go (20×), goethe (2×), GOINGE (1×), goist (2×), goithe (2×), gone (7×), goo (2×), went (1×)
gladiolus, n. Any plant of the iridaceous genus <i>Gladiolus</i> , having sword-shaped leaves and spikes of brilliant flowers	goat, n. A ruminant quadruped of the genus <i>Capra</i>
gladen (1×)	goat (2×), goats (2×), goots (1×), gote (1×)
glandule, n. A gland	gobbet, n. A part, portion, piece, fragment of anything which is divided, cut, or broken
glandiles (1×), Glandule (1×), glandules (4×), grandules (1×)	gobbet (6×), Gobbett (2×), gobet (1×), goblet (1×)
glar, n. Slime, mud	god, n. God
glare (1×)	god (15×), godes (1×), gods (1×)
glass, n. Glass	goer, n. A foot
glas (8×), glasithe (1×), glass (2×), glasse (5×), gles (1×)	goer (1×)
glassful, n. As much as fills a glass	gold, n. Gold
	goold (2×), gould (2×)
	goldes → marigold

good, a. Good

best (12x), beter (1x), better (24x), godd (1x), gode (1x), Good (111x), goodd (2x), goode (14x)

goodly, b. In a goodly or excellent fashion

goodlie (3x)

goose, n. A general name for the large web-footed birds of the sub-family *Anserinæ* (family *Anatidæ*)

goos (1x), goose (2x), gose (2x)

gotten → get

gourd, n. The large fleshy fruit of the trailing or climbing plants of the family *Cucurbitaceæ*

goord (1x)

gout, n. A specific constitutional disease occurring in paroxysms, usually hereditary and in male subjects

Goute (2x), gowt (2x), gowte (4x), gowtes (1x)

grace, n. Favour, favourable or benignant regard or its manifestation

grace (14x), graice (1x)

grain, n. A grain of a plant

graines (3x), grains (3x), granes (2x), graynes (1x), grayns (1x)

gram, n. Gram

grames (1x)

grass, n. Grass

gras (1x), grasse (3x)

grate, v. To grate

grated (1x), gratid (1x)

gravel, n. A material consisting of coarse sand and water-worn stones of various sizes, often with a slight intermixture of clay, much used for laying roads and paths

gravell (2x)

gray, a. Gray

graie (1x), gray (1x), graye (1x)

grease, n. The fat part of the body of an animal

greace (16x), greas (1x), grec (1x), grece (14x), greece (1x)

great, a. Great

great (41x), greate (16x), greater (1x), gret (1x), grete (1x), greter (1x), grether (1x)

greatly, b. To a great extent; extensively, exceedingly

greatlie (1x), greatlye (1x), gryetlye (1x)

greatness, n. The attribute of being great in size, extent or degree

greatnes (2x)

greek, a. Greek

greeke (1x)

green, a. Green

green (1x), grene (14x)

grevaunce → grievance

greve → grieve

grew(e) → grow



grievance, *n.* The infliction of wrong or hardship on a person; injury, oppression
grevaunce (1x)

grieve, *v.* To bring trouble or harm to; to cause damage to
greve (2x), greved (1x)

grind, *v.* To reduce to small particles or powder by crushing between two hard surfaces

Grend (2x), grind (3x), grinde (1x), grinding (1x), ground (14x), grounde (2x), grownd (3x), grynd (4x), grynde (1x), grynding (1x), gryndinge (1x)

grip, *n.* A small open furrow or ditch
grip (1x), gryp (1x)

gristly, *b.* Pertaining to, or of the nature of gristle; consisting or full of gristle; cartilaginous

grystly (1x)

gromwell, *n.* The common name for any of the plants of the genus *Lithospermum*
gromell (2x), grommell (1x)

grot, *n.* A fragment, particle

groat (1x), groats (1x), groote (2x), groots (1x), grots (1x), growt (1x)

ground, *n.* The bottom; the lowest part or downward limit of anything

ground (6x)

grow, *v.* To grow

grew (2x), grewe (1x), greweng

(1x), grewithe (3x), grow (5x), growe (1x), growen (2x), growtheth (1x), growing (3x), growinge (1x), growithe (3x), growthe (1x)

grynd(e) → grind

gryp → grip

grystly → gristly

gum, *n.* A viscid secretion issuing from certain trees and shrubs, which hardens in drying but is usually soluble in cold or hot water

gomes (1x), gommes (1x), gooms (1x), gume (4x), gumes (6x), gumm (1x), gummes (1x)

gum ammoniac, *n.* A gum-resin, of peculiar smell, and bitterish taste, the inspissated juice of an umbelliferous plant (*Dorema Ammoniacum*)

gum ammoniac (1x), gume amonac (1x)

gut, *n.* The contents of the abdominal cavity; the bowels, entrails

gut (3x), guts (1x), gutts (3x)

gutter, *n.* A watercourse, natural or artificial

gutter (1x)

gyle-fat, *n.* The vat in which the wort is left to ferment

gylefat (2x), gylefatt (1x)

gyve(n) → give

gwynde → wind



H

hair, n. Hair

heare (1x), heeres (2x), heire (2x), heres (1x)

hairif, n. A widely-diffused popular name of Cleavers or Goose-grass, *Galium Aparine*
heyrif (1x)

hable → **able**

habundance → **abundance**

half, a. Half

half (110x), halfe (2x)

hand, n. Hand

hand (24x), hande (6x), handes (2x), hands (7x)

handful, n. A handful

handful (1x), handfull (60x), handfulle (1x)

hang, v. To hang

hangithe (1x), hung (2x)

hap, v. To turn to the right

hap (1x)

happen, v. To happen

happenithe (1x), happen (6x), happenithe (9x), HAPPENS (2x)

hard, v. To be or become hard

harding (1x)

hard, b. Hard

hard (16x), herd (1x)

hard, a. Hard

hard (16x), harde (7x), herd (1x)

harden, v. To render or make hard

harden (1x), hardened (1x)

hardness, n. The quality or condition of being hard

hardnes (3x)

hare, n. A rodent quadruped of the *genus Lepus*, having long ears and hind legs, a short tail, and a divided upper lip

hare (3x)

hare-hound, n. A dog for haunting hares

harehounde (1x), herehound (1x), horehownd (1x)

harm, n. Evil (physical or otherwise) as done to or suffered by some person or thing

harm (1x)

harm, v. To do harm (to); to injure (physically or otherwise)

herm (1x)

harsh, a. Disagreeably hard and rough to the touch; coarse in texture; rugged

harsh (1x)

hart, n. The male of the deer

harts (2x)

hart(e) → **heart**

has(s)ill nut → **hazel-nut**

haste, n. Urgency or impetuosity of movement resulting in or tending to swiftness or rapidity



haste (1x)	well-known fruit
hastily , b. Quickly, speedily, expeditiously	hasill nut (1x), hassill nut (1x)
hastelie (1x)	
hattrel , n. The apex or crown of the head; also, the nape of the neck; the neck	head , n. Head
hatrell (1x), hatterell (2x), hattrell (1x)	head (33x), heade (15x), heades (2x), hede (8x), heed (2x), heede (4x), heedes (1x)
haunt , v. To haunt	headache , n. An ache or continuous pain, more or less deep-seated, in the cranial region of the head
hawnt (1x)	headeache (1x)
have , v. To have	heal , v. To make whole or sound in bodily condition
had (11x), haist (5x), haith (6x), haithe (1x), hast (5x), hath (6x), hathe (36x), haue (90x), have (11x), having (5x), haythe (1x)	heal (3x), heale (66x), healid (12x), healing (5x), healinge (2x), healithe (6x), healyd (2x), hele (22x), heled (1x), helid (3x), heling (2x), helinge (1x), hole (12x), holed (2x), hoole (3x)
haver , n. Oats	health , n. Soundness of body
haven (1x), haver (2x)	healthe (1x)
haw , n. The fruit of the hawthorn	hear , v. To hear
hawes (2x)	hear (1x), herd (1x)
hawthorne , n. A thorny shrub or small tree, <i>Crataegus Oxyacantha</i> , extensively used for forming hedges	beare → hair
hawthorne (1x)	hearing , n. Perception by the ear or auditory sense
hay , n. Hay	hering (1x), heringe (1x)
hay (1x), haye (1x)	heart , n. Heart
hayhove , n. The herb ground ivy	hart (1x), harte (6x), harts (1x), hert (4x), herte (1x), herthe (1x), herts (3x)
heyhaue (1x), heyhowe (1x)	heartwort , n. The plant <i>Aristolochia Clematitis</i> , also called birthwort
hazel , n. A bush or small tree of the genus <i>Corylus</i> , having as its fruit a nut	
Asill (1x)	
hazel-nut , n. The nut of the hazel, a	

hertwoort (1x)	branched stem with purplish spots, finely divided leaves, and small white flowers
heat, n. The quality of being hot heat (4x), heate (3x), heats (1x), heet (1x), hete (6x)	humlocks (1x)
heat, v. To make hot, to warm heat (6x), heate (2x), heet (1x)	hemp, n. An annual herbaceous plant, <i>Cannabis sativa</i> hempe (1x)
heaviness, n. The state or quality of being heavy hevines (1x)	hen, n. A hen hen (3x), hene (2x), hennes (1x)
heavy, a. Heavy hevie (2x)	henbane, n. The common name of the annual plant <i>Hyoscyamus niger</i> , a native of Europe and northern Asia, growing on waste ground, having dull yellow flowers streaked with purple, viscid stem and leaves, unpleasant smell, and narcotic and poisonous properties henbain (1x), henbaine (1x), henbane (1x), hennebell (1x)
hede → heed	ennebell → henbane
hedge, n. Hedge heddge (1x), hedge (3x)	hepatica, n. A subgenus or section of the genus <i>Anemone</i> epatic (2x), epaticum (1x), epatik (2x), hepatica (1x)
heed, n. Careful attention, care, observation, regard hede (6x)	herb, n. A plant of which the stem does not become woody and persistent (as in a shrub or a tree) erbe (1x), hearbes (1x), hearbs (1x), herb (4x), herbe (11x), herbes (26x), herbs (8x)
heet → heat	herb bennet, n. <i>Geum urbanum</i> (family <i>Rosaceæ</i>), a common European wayside plant with yellow flower
heere → hair	
heire → hair	
hellebore, n. A name given to certain plants having poisonous and medicinal properties, reputed as specifics for mental disease elabour (1x), elebore (5x), helebore (1x)	
help, v. To help help (13x), helpe (4x), helpithe (1x), holpe (1x), holpen (2x)	
hemlock, n. The common name of <i>Conium maculatum</i> , a poisonous umbelliferous plant, having a stout	

herb benet (1x)	<i>hertwoort</i> → heartwort
herb John , <i>n.</i> St. John's-wort, <i>Hypericum perforatum</i>	<i>bete</i> → heat
herb Iohn (1x), herbe Iohn (1x), herbe John (1x)	<i>hevie</i> → heavy
herb Robert , <i>n.</i> The English name for a common wild species of Crane's-bill or <i>Geranium</i> (<i>G. Robertianum</i>), with divided leaves and light reddish purple flowers	<i>bevines</i> → heaviness
herb Robert (1x), herbe robert (1x)	<i>heyb(aue)(owe)</i> → heyhove
herb water , <i>n.</i> A medicinal infusion of herbs	<i>beyrif</i> → hairif
herbewater (1x)	hiccup , <i>n.</i> A hiccup
herd , <i>n.</i> A great number, a mass	hickop (1x)
herdes (1x), herds (1x)	hide , <i>v.</i> To hide
here , <i>b.</i> Here	hidd (1x), hyde (2x)
HERE (5x)	high , <i>a.</i> High
herebound → hare-hound	highe (2x), higher (1x)
here → hair	highly , <i>b.</i> Highly
hereafter , <i>b.</i> After, in this writing, book, or place	highelie (1x)
hereafter (2x)	hill , <i>n.</i> A hill
herm → harm	hill (1x)
hernia , <i>n.</i> A tumour formed by the displacement and resulting protrusion of a part of an organ through an aperture, natural or accidental, in the walls of its containing cavity	hillwort , <i>n.</i> An old name of Pennyroyal (or Wild Thyme)
hernia (1x)	hilwoort (1x)
herisipula → erysipelas	hinge , <i>v.</i> To bend (anything) as a hinge
	hing (7x), hingening (1x), hinging (1x), hingithe (2x)
	hip , <i>n.</i> The projecting part of the body on each side formed by the lateral expansions of the pelvis and upper part of the thigh-bone
	ipp (3x), hippe (1x), hipps (1x)
	hippocras , <i>n.</i> A cordial drink made of wine flavoured with spices, formerly much in vogue
	Iopcras (1x)
	hock , <i>n.</i> A general name for various

malvaceous plants, as the Common and Marsh Mallow and the Hollyhock hock (7x), hockes (2x), hok (1x), hoke (1x)

hog, *n.* A swine reared for slaughter hoggs (1x)

hogshead, *n.* A large cask for liquids, etc.

hogesheed (1x), hoggsshead (1x)

hold, *v.* To hold
hold (2x), holde (2x), holden (1x), holdinge (1x), hoold (1x), hoolden (1x), hould (6x), houlde (2x), houlden (2x)

hole, *n.* A hole

hole (92x), holes (6x), hooles (1x)

hole → **heal**

hollow, *a.* Having a hole or cavity inside; having an empty space in the interior

holow (1x), holowe (5x)

hollowness, *n.* The quality or condition of being hollow

holones (1x)

holp → **help**

holy, *a.* Holy

holie (1x)

home, *b.* To one's home

home (2x)

honey, *n.* Honey

honie (23x), hony (10x), honye

(16x)

hook, *v.* To make hook-like or hooked hoked (1x), hooke (1x)

hook, *n.* A length of metal, or piece of wood or other material, bent back, or fashioned with a sharp angle hooke (1x)

boole → **heal**

hop, *n.* The ripened cones of the female hop-plant, used for giving a bitter flavour to malt liquors, and as a tonic and soporific

hopps (2x)

borehownd → **hare-hound**

horn, *n.* Horn

horne (1x)

horse, *n.* A horse

hors (1x), horse (1x)

horse-mint, *n.* A name applied generally to the wild mints

horse mynts (1x)

hose, *n.* An article of clothing for the leg; sometimes reaching down only to the ankle as a legging or gaiter

hose (1x)

hot, *a.* Hot

hoote (15x), hote (53x)

houseleek, *n.* The plant *Sempervivum tectorum*, a succulent herb with pink flowers and thick stem and leaves

houseleek (1x), houseleke (1x),

housleke (1x)



hound, n. A dog

hound (1x)

hound's-tongue, n. The *genus Cynoglossum* of boraginaceous plants, as the species *C. officinale*; Dog's tongue

houndestounge (1x)

hour, n. An hour

houre (3x), hours (7x), hours (4x), howr (4x), howre (12x), howres (9x), howrs (5x)

hourt → hurt

house, n. House

hows (2x), howse (1x)

how, n. A hill, hillock

howes (1x)

how, b. How

how (8x)

hows(e) → house

hull, n. The shell, pod, or husk of pease and beans

hull (1x), hulles (1x)

humbly, b. Humbly

humblelie (1x)

humlock → hemlock

humour, n. Any fluid or juice of an animal or plant, either natural or morbid

humor (2x), humors (1x), humour (4x), humours (4x)

bung → hang

hurt, v. To hurt

hourt (1x), hurt (4x), hurte (12x), hurted (2x), hurtid (4x),

hurting (3x), hurtinge (1x)

husk, v. To remove the husk from, to deprive of the husk

huskid (1x)

hyde → hide

hyssop, n. A small bushy aromatic herb of the *genus Hyssopus*

Isope (1x), ysop (2x), ysope (1x), ysopp (3x)

I

iaggid → jag

Iaw → jaw

Iawnes → jaundice

iche → ache

idle, n. Void of any real worth, usefulness, or significance; leading to no solid result

ydle (2x)

ignorance, n. Ignorance

ignorance (1x)

ill, a. Evil, in the widest sense

ill (1x)

illness, n. Illness

ylnes (2x)

immediate, a. Immediate

imediate (1x), imediatlie (1x)

immediately, b. Immediately

immediatlye (2x)

immovable, a. That cannot be moved



unmoveble (1×)	infuse (1×)
implastrid → plaster	
impostume , <i>n.</i> A purulent swelling or cyst in any part of the body; an abscess	
Imposteme (1×), impostemes (1×), impostume (6×)	
inch , <i>n.</i> A measure of length, the twelfth part of a foot	
inches (1×), ynche (6×), ynches (1×)	
incontinent , <i>a.</i> Not continent; wanting in self-restraint	
incontinent (1×)	
incontinently , <i>b.</i> In an incontinent manner; loosely, unchastely	
Incontinentlie (1×),	
incontinently (1×),	
incontinentlye (1×)	
incorporate , <i>v.</i> To combine or unite into one body or uniform substance	
incorporate (3×)	
incurable , <i>a.</i> Incapable of being healed by medicine or medical skill	
vncurable (4×)	
infect , <i>v.</i> To infect; to spoil or corrupt by noxious influence, admixture, or alloy	
infected (3×), infectid (3×)	
infrigidate , <i>v.</i> To make cold or frigid; to cool	
infrigidate (1×)	
infuse , <i>v.</i> To pour in	
	ink, <i>n.</i> Ink
	ynke (1×)
	in naturall → unnatural
	inner , <i>a.</i> Situated more within; more or further inward
	Inder (1×), iner (1×), inner (1×), ynner (5×)
	inoughe → enough
	inside , <i>n.</i> The inner side or surface
	Inside (1×)
	instead of , <i>b.</i> In place of
	in stede of (3×), in steed of (2×)
	instillation , <i>n.</i> The action of instilling; introduction (of a liquid) drop by drop
	instillage (1×)
	instrument , <i>n.</i> Instrument
	Instrument (3×), Instruments (1×)
	intent , <i>n.</i> The act or fact of intending or purposing; intention, purpose
	intent (2×)
	intermeddle , <i>v.</i> To meddle or mix together; to intermingle
	intermeddle (1×)
	intreat → entreat
	inward , <i>a.</i> Situated within; that is the inner or inmost part
	inward (4×), inwarde (1×)
	inwardly , <i>b.</i> In, on, or in reference to, the inside or inner part
	inwardlie (2×), Inwardly (1×)

ioynid (1x)

joint, *n.* A junction; an arrangement, structure, or mechanism in an animal body, whereby two bones are fitted together

ioint (20x), iointe (6x), iointes (1x), ioints (1x), ionte (3x), ounts (1x), ioyn (5x), ioynite (1x)

judge, *v.* To form an opinion about; to judge

iudge (1x)

juice, *n.* The watery or liquid part of vegetables or fruits, which can be expressed or extracted

ioice (1x), Iuce (37x), Iuice (16x), Iuices (1x), Ivce (1x)

june, *n.* June

Iune (1x)

just, *b.* Just

iust (2x)

justly, *b.* Uprightly; righteously
iustlie (4x)

K

kale, *n.* A generic name for various edible plants of the *genus Brassica*

keall (1x)

kanker → **cancer**

keall → **kale**

keel, *v.* To cool; to cause to lose heat

keele (3x), kele (6x), kelid (1x)

keep, *v.* To keep

keep (1x), keepe (1x), kepe (48x), keping (1x), kepith (1x), kept (1x)

kell, *n.* A net for wrapping something in kell (2x)

kernel, *n.* A seed

kernels (1x), kyrnells (2x)

kidney, *n.* Kidney

kidney (1x)

kill, *v.* To kill

KILL (4x), kyll (1x)

kind, *n.* The character or quality derived from birth or native constitution

kind (1x), kinde (1x), kynde (1x)

kindly, *b.* In the way suitable or appropriate to the nature of the thing

kyndelie (1x)

knar, *n.* A rugged rock or stone

cnarelle (1x), qnarell (2x), qnarrell (4x)

knashe → **gnash**

knead, *v.* To mix and work up into a homogeneous plastic mass, by successively drawing out, folding over, and pressing or squeezing together

kneade (3x), knede (6x)

knee, *n.* The knee

kne (2x), knee (2x), knees (2x)

knife, *n.* A knife

knife (4x), knyfe (1x)

knit, *v.* To tie in or with a knot
knit (4x), knyt (1x)

knob, *n.* A rounded protuberance or swelling on the skin or on a bodily organ
knobbes (2x)

knock, *v.* To strike with a sounding blow
knock (1x)

knop, *v.* To furnish or adorn with knobs; to stud
knoppid (1x)

knot, *n.* A knot
knot (4x), knott (1x), knotts (2x)

know, *v.* To know
knew (2x), know (8x), knowe (6x), knownen (4x), knowing (1x), known (1x), knowne (2x)

knowledge, *n.* Knowledge
knowledge (1x)

knur, *n.* A hard excrescence, swelling, or concretion in the flesh
KNURRES (2x)

kurithe → cure

kyll → kill

kynde → kind

kyndelie → kindly

kyrnells → kernel

L

laborious, *a.* Characterised by or involving labour or much work; toilsome

laboriouse (1x)

labour, *v.* To work out in detail, to elaborate

labor (1x)

ladder, *n.* A ladder

ladder (3x)

ladle, *n.* A large spoon with a long handle and cup-shaped bowl, used chiefly for lading liquids

laddell (1x)

lain, *n.* A layer, a stratum

laint (1x)

Laishe → latch

lamb, *n.* The young of the sheep

lambes (1x)

lancet, *n.* A small lance, a dart

lancet (3x), lancett (1x), launcet (1x), launcett (2x)

langue de bœuf, *n.* A name variously applied to certain boragineous and other plants with rough leaves, as *Echium vulgare*, *Helminthia echiodes*, *Borago officinalis*, etc.

langdebeffe (1x), lange de boeff (2x), langue de boeff (1x)

lannworts → lungwort

lap , <i>v.</i> To coil, fold, wrap	lavander (4x)
lap (3x), lapis (2x), lapp (4x), lapped (1x)	
lard , <i>n.</i> The fat of a swine; (fat) bacon or pork	lawn , <i>n.</i> A kind of fine linen, resembling cambric
lard (1x), larde (5x)	laund (1x), lawnde (1x)
large , <i>a.</i> Ample, wide, great	lax , <i>n.</i> looseness of the bowels, diarrhoea; a laxative medicine, an aperient
large (11x), larger (4x)	lax (2x), laxe (1x)
largely , <i>b.</i> In a large manner	lay , <i>v.</i> To place close to; to put to for a purpose, to apply
largelie (1x)	lai (1x), laid (11x), laie (18x), laing (1x), lay (85x), layd (1x), laye (16x), ley (43x), leye (2x)
last , <i>a.</i> Last	leach , <i>n.</i> A dish consisting of sliced meat, eggs, fruits, and spices in jelly or some other coagulating material
last (7x)	leche (1x)
last , <i>b.</i> Last	lead , <i>n.</i> Lead
last (9x)	lede (2x), leed (1x)
latch , <i>n.</i> A loop or noose; a gin, snare	lead , <i>v.</i> To cover with lead; to conduct, guide
Laishe (1x)	leded (1x), ledithe (1x)
late , <i>a.</i> Late	leaf , <i>n.</i> The leaf of a plant
latter (1x)	leaf (6x), leafe (5x), leaffe (1x), leaves (25x), leavs (6x), leef (2x), leves (22x), levinge (1x)
latin , <i>n.</i> Latin	lean , <i>v.</i> To incline the body against an object for support
laten (1x), latten (2x)	lenethe (1x)
latten , <i>n.</i> A mixed metal of yellow colour, either identical with, or closely resembling, brass	leisure lie → leisurely
laten (1x)	
laurel , <i>n.</i> The bay-tree or bay-laurel, <i>Laurus nobilis</i>	leather , <i>n.</i> Leather
Lawrell (1x)	lether (8x)
Lava(che)(ge) → lovage	
lavender , <i>n.</i> The plant <i>Lavandula vera</i> (family <i>Labiatae</i>), a small shrub with small pale lilac-coloured flowers, and narrow oblong or lanceolate leaves	

leave, v. To leave	let (154x), lett (1x), lettid (1x), letting (4x)
leave (5x), left (1x), leve (6x)	
leaven, n. A substance which is added to dough to produce fermentation	<i>letarge</i> → litharge
leven (3x)	
lectuarie → electuary	
lee, n. The sediment deposited in the containing vessel from wine and some other liquids	lettuce, n. Lettuce, any plant of the <i>genus Lactuca</i>
lee (1x), lies (2x)	Letice (1x), lettice (2x), lettuce (1x)
leed, n. The grass <i>Glyceria aquatica</i>	lie, v. To lie
lead (2x), leade (1x), lede (1x), leed (1x)	lie (13x), liethe (2x), lye (24x), lyen (3x), lyeng (1x), lyeth (1x), lyethe (2x), lying (2x)
leek, n. The leek, a culinary herb, <i>Allium</i> <i>Porrum</i> (family <i>Liliaceæ</i>)	lies → lee
leeke (1x), leekes (3x), leeks (1x), leikes (1x), leiks (3x), leyk (1x)	life, n. Life
left, a. Left	life (2x), lyfe (1x)
left (3x)	
leg, n. One of the organs of support and locomotion in an animal body	lift, v. To raise into the air from the ground, or to a higher position
leg (1x), legg (13x), legge (1x), leggs (8x)	lift (4x)
leisure, n. Leisure	lifting, n. The action of the verb lift in various senses
leysure (1x)	lifting (2x)
leisurely, b. At leisure, without haste	light, n. Light
leasurelie (1x)	lichte (1x), lights (5x)
lemon, n. A lemon	light, a. That does not lie heavy on the stomach; easy of digestion
lemonndes (1x)	light (2x)
length, v. Length	light, v. To set burning
lenghthe (3x), lengthe (2x)	light (1x)
let, v. To let	lightly, b. In a light manner
	lightlie (5x)
	like, v. To like
	likes (1x)
	like, a. Having the same characteristics

or qualities as some other person or thing

lik (1x), like (57x), lyke (12x)

lily, *n.* Lily, any plant (or its flower) of the genus *Lilium* (family *Liliaceæ*)

lilij (1x), lillie (1x), lylles (1x),
lyllie (1x), lyllye (1x)

lime, *n.* The globular fruit of the tree *Citrus Medica*, smaller than the lemon and of a more acid taste

lyme (20x)

line, *n.* The fibre of flax

lin (1x), lyn (3x), lyne (7x)

linen, *a.* Cloth woven from flax

lynen (5x), lynnен (30x)

lining, *n.* The stuff with which garments are lined

lynning (3x)

linnet, *n.* Oxidised lead ores

lynet (27x), lynett (1x), lynnert (2x)

linseed, *n.* The seed of flax, well known as the source of linseed-oil, and as a medicament

lynesede (1x), lynsede (1x)

lint, *n.* The flax-plant

lynt (5x), lynte (1x)

lip, *n.* Lip

lipp (1x), lippes (6x), lipps (2x),
lips (1x), lyppes (1x)

liquor, *n.* Liquid for drinking; beverage, drink

licores (3x), licour (12x), lycores (3x), lycour (10x), lycore (1x), lykores (1x)

liquorous, *a.* Of the nature of liquor; liquid

liquorous (1x)

lisk, *n.* The loin or flank; also, the groin
liske (1x), liske (1x)

list, *v.* To desire, like

list (3x)

litharge, *n.* Protoxide of lead prepared by exposing melted lead to a current of air

letarge (1x), litarg (1x), litarge (6x)

little, *a.* Little

least (1x), lesser (4x), litill (2x), little (32x), littill (1x), lytill (12x), lytle (1x)

little, *b.* To a little or slight extent; in a small degree

litil (1x), litle (3x), little (1x)

little, *n.* A small quantity, piece, portion
litill (16x), litle (42x), littil (1x), littill (1x), little (4x)

live, *v.* To live

live (2x), lived (1x), lyve (2x)

liver, *n.* The liver

liver (1x), lyver (5x)

liverwort, *n.* The lichen-like plant *Marchantia polymorpha*

lyverworthe (1x)



long, a. Long	<i>Pulmonaria officinalis</i> (Common Lungwort), having leaves with white spots, fancied to resemble the spots in a diseased lung
long (17x), longa (1x), longe (9x), longer (8x)	lannworts (1x)
long, v. To long	
longithe (1x)	
long(e) → lung	lust, n. Desire, appetite, inclination for something
look, v. To look	lust (1x)
looke (6x)	
loose, a. Unbound, loose	lusty, a. Full of healthy vigour
lows (1x), Lowse (1x)	lustie (3x)
lose, v. To lose	lycour(e) → liquor
lose (4x), lost (3x)	lye → lie
lovage, n. The umbelliferous herb <i>Levisticum officinale</i> , a native of southern Europe, grown in old gardens, and used as a domestic remedy	lyfe → life
Lavache (1x), lavage (1x), lovage (2x)	lying → lie
low, a. Low	lyke → like
louermoste (1x), low (2x), lower (6x)	lykores → liquor
lukewarm, a. Moderately warm, tepid	yll(i)(ye) → lilly
luikewarme (1x), lukewarm (1x)	lymbeck → alembic
lump, n. A compact mass of no particular shape; a shapeless piece or mass	lyme → lime
lumps (1x)	lyn(n)et(t) → linnet
lung, n. The lung, each of the two respiratory organs in man and most vertebrate animals	lynning → lining
longes (3x), longs (1x)	lyn(e)sede → linseed
lungwort, n. The boraginaceous plant	lynt(e) → lint
	lyppes → lip
	lyt(ill)(le) → little
	lyve → live
	lyver → liver
	lyverworthe → liverwort

M

mace, *n.* A spice consisting of the dried outer covering of the nutmeg
mace (1×), maces (2×)

madder, *n.* A herbaceous climbing plant, *Rubia tinctorum*, having rough hairy stems and bearing panicles of small yellowish flowers

bale madder (3×), madder (6×)

maidenhair, *n.* The name of certain ferns having fine hair-like stalks and delicate fronds

madenhear (1×), madenheir (1×), madens haire (1×), mayden heare (1×)

make, *v.* To make

made (9×), maid (18×), maide (11×), maik (36×), maike (36×), mak (2×), make (100×), makid (1×), makithe (6×), mayd (2×), mayde (3×)

malady, *n.* Ill health, sickness, disease
malady (1×)

malice, *n.* Bad quality, badness
mallice (1×)

mallow, *n.* A common wild plant, *Malva sylvestris* (family *Malvaceæ*), having hairy stems and leaves and deeply-cleft reddish-purple flowers

mallowes (1×), mallows (2×),

malowe (2×), malows (5×)

malmsey, *n.* A strong sweet wine, originally the product of the neighbourhood of *Monemvasia* in the Morea; also called malvoisie

malmese (1×), malmesey (6×), malves (1×), malvesey (2×), malvesie (1×)

malt, *n.* Barley or other grain prepared for brewing or distilling by steeping

malt (10×)

malves(ey)(ie) → **malmsey**

mallamollie → **melancholy**

Mallancollie → **melancholy**

Malum mortum → **mormal**

man, *n.* A human being (irrespective of sex or age)

man (29×), mann (1×), mans (8×), men (3×)

mandrake, *n.* Any plant of the genus *Mandragora*, native to Southern Europe and the East, and characterized by very short stems, thick, fleshy, often forked, roots, and fetid lance-shaped leaves

mandragg (1×)

manner, *n.* The way in which something is done; method of action; mode of procedure

maner (14×), manie (1×), manner (121×), manners (2×)

many, *a.* Many

many (24×), manye (1×)



marble, *n.* Limestone in a crystalline state and capable of taking a polish
 marble (1×), marvall (1×),
 marvell (1×)

march, *n.* Smallage or wild celery,
Apium graveolens
 merche (1×)

margin, *n.* That part of a surface which lies immediately within its boundary
 margen (1×)

marigold, *n.* The name of several plants having golden or bright yellow flowers
 goldes (1×), marigolde (1×),
 marigouldes (1×), marigoulds (1×), marygold (1×)

mark, *v.* To put a mark upon
 marke (2×)

mark, *n.* A mark
 mark (1×), marke (1×)

marrow, *n.* The soft vascular fatty substance usually contained in the cavities of bones
 marrow (3×)

marsh, *a.* A tract of low lying land, flooded in winter and usually more or less watery throughout the year
 morishe (1×)

marvall → **marble**

marvel, *n.* A wonderful or astonishing thing;
 marvells (1×), mervaile (1×),
 mervall (1×)

Marvel(l) → marble

marvellous, *a.* Marvellous
 mervalous (2×), merelous (4×)

mash, *n.* Something reduced to a soft pulpy consistence, by beating or crushing, by mixing with or steeping in water, etc

mashe (1×)

mask, *v.* To infuse
 maskid (1×)

mask-fat, *n.* A mashing vat
 mask fatt (1×), maskfats (1×)

mastic, *n.* A gum or resin which exudes from the bark of *Pistacia Lentiscus* and some other trees

mastic (3×), mastice (1×),
 mastick (7×), mastik (3×),
 mastyck (1×), mastyk (2×),
 mastyke (1×)

matfellon, *n.* The common name of species of *Centaurea* (family *Compositæ*), a common weed with a hard tough stem, and light purple flowers

matfelon (2×)

matter, *n.* Matter

mater (1×), matter (51×),
 matters (1×)

maturative, *a.* That causes maturation or the formation of pus; pertaining to or characterized by maturation

maturatye (1×)

maw, *n.* The stomach



maw (1x)	disease
may, n. The month of May	medicine (1x), medcyn (1x), medcyne (18x), medcynes (2x), medcyns (1x), medicina (1x), Medicine (2x), Medicyne (1x), medycine (2x)
may, v. May	<i>medratill</i> → mithridate
mai (1x), maie (35x), maist (3x), maiste (1x), may (69x), maye (8x)	megrin, n. Hemicrania; a form of severe headache usually confined to one side of the head
meadow-sweet, n. The rosaceous plant <i>Spiraea Ulmaria</i> , common in moist meadows and along the banks of streams	megrin (2x), megrime (1x), Megryme (2x), migrim (1x)
medewort (1x)	melancholy, n. The black bile itself, one of the four chief fluids or cardinal humours of the ancient and mediæval physiologists
meal, n. Meal	malancolie (1x), mallamollie (1x), Mallancollie (1x)
meal (2x), meale (5x)	melilot, n. A plant of the leguminous genus <i>Melilotus</i> , <i>M. officinalis</i> or Yellow Melilot, the dried flowers of which were formerly much used in making plasters, poultices, etc.
mean, n. An intermediary agent or instrument	milliot (1x)
mean (1x)	<i>mellefoyle</i> → milfoil
mean, a. Intermediate in time; coming between two points of time or two events	melon, n. A name common to several kinds of gourds, as the musk melon, <i>Cucumis Melo</i> , and the water melon, <i>Citrullus vulgaris</i>
mean (1x), meane (1x)	million (1x)
measle, a. Affected with measles	melt, v. To become liquefied by heat
mesell (1x)	melt (17x), meltid (1x), molten
meat, n. Meat	
meat (22x), meate (8x), meates (2x), meats (1x), meets (1x), mete (2x), metes (2x), mitts (1x)	
meddle, v. To mix, mingle; to combine, blend	
meddle (11x), medle (4x)	
medewort → meadow-sweet	
medicine, n. Any substance or preparation used in the treatment of	

(12x), moltid (1x)	mettell (1x)
member , <i>n.</i> A part or organ of the body; a limb or other separable portion	mid , <i>n.</i> The middle
member (5x), members (5x), membrum (1x)	myd (2x)
men → man	mid , <i>a.</i> The middle or midst of something
mend , <i>v.</i> To restore to a complete or sound condition	myddest (1x)
mend (3x), mendid (1x)	middle , <i>a.</i> Middle
meng , <i>v.</i> To mix, mingle, blend	myddle (2x)
meng (11x), menge (17x), menged (1x), mengid (4x)	midriff , <i>n.</i> The diaphragm
mengle → mingle	mydriff (2x)
menstrue , <i>n.</i> The catamenia	mids , <i>n.</i> The middle, middle part or point
menstrews (1x)	middes (2x), midds (1x), mydds (1x)
mention , <i>v.</i> To make mention of	midwife , <i>n.</i> A woman who assists other women in childbirth, a female accoucheur
mentionid (1x)	middwife (1x)
merchant , <i>n.</i> A merchant	might , <i>v.</i> Might
merchants (1x)	might (7x), mighte (1x)
merche → march	mightyly , <i>b.</i> In a mighty manner, with great power or strength
mercury , <i>n.</i> Mercury	mightelie (1x)
mercurie (2x)	mike , <i>n.</i> A crutch or forked support on which a boom rests when lowered
merge , <i>v.</i> To plunge or dip in a liquid	mik (1x)
merge (1x), mergid (1x)	milfoil , <i>n.</i> The common yarrow, <i>Achillea Millefolium</i>
merthe → myrt	mellefoyle (1x)
merv(alous)(elous) → marvelous	milk , <i>n.</i> Milk
mesh , <i>v.</i> To entangle, involve inextricably	milk (16x), milke (1x), mylk (2x), mylke (1x)
meshid (1x)	
metal , <i>n.</i> Any member of the class of substances represented by gold, silver, copper, iron, lead, and tin	

mill , <i>n.</i> Ground oak-bark for tanning	misconyng (1x)
mylne (1x)	
milliot → melilot	
million → melon	
millstone , <i>n.</i> One of a pair of circular stones used for grinding corn in a mill	
moler stone (4x), moller stone (1x)	
milt , <i>n.</i> The spleen in mammals	
milt (5x), milte (4x), mylt (3x)	
mince , <i>v.</i> To cut or chop	
mynced (1x)	
mind , <i>n.</i> Mind	
minde (1x), mynde (1x)	
 mingle , <i>v.</i> To mix so that they become physically united	
mengle (1x), mingle (1x)	
mint , <i>n.</i> Any one of the aromatic labiate plants of the genus <i>Mentha</i>	
mint (1x), mints (1x), mynt (1x), mynts (1x)	
mipking → napkin	
mir → myrrh	
miracle , <i>n.</i> A miracle	
miracle (1x)	
mirtills → myrtle	
misconyng → misken	
misjoin , <i>v.</i> To join or connect wrongly, inappropriately	
misiodynid (1x)	
misken , <i>v.</i> Not to know; to be ignorant of	
	misconyng (1x)
	mis-set, <i>v.</i> To set in a wrong place, misplace
	missetting (1x)
	mithridate , <i>n.</i> A composition of many ingredients in the form of an electuary, regarded as a universal antidote or preservative against poison and infectious disease
	medratill (1x)
	mitts → meat
	mix , <i>v.</i> To put together so that the particles or members of each are more or less evenly diffused among those of the rest
	mix (1x), mixe (4x), mixid (3x), mixing (3x), mixt (1x)
	moderately , <i>b.</i> In a moderate manner, degree, extent
	moderatlie (2x)
	moist , <i>a.</i> Slightly imbued with wetness
	moist (1x), moiste (1x)
	moistness , <i>n.</i> The quality or state of being moist
	moystnes (2x)
	mol(ayne)(eyn)(eyne) → mullein
	mol(l)er stone → millstone
	molt → melt
	month , <i>n.</i> A month
	moneth (2x), monethe (2x), monithes (1x), month (1x), monthe (2x)

moon, *n.* Moon

monne (1x), moone (3x)

more, *a.* Greater in number, quantity, or amount

moe (2x), moore (10x), moost (1x), mooste (1x), more (29x)

morel, *n.* A name applied to various plants also known as nightshade; chiefly the Black Nightshade

morell (1x), morrell (1x), petit morel (1x)

morishe → **marsh**

mormal, *n.* An inflamed sore

malum mortum (1x), Mormall (9x), mormalles (1x), mormalls (1x)

morn, *n.* The beginning of the day, dawn, sunrise

morn (4x), morne (14x)

morning, *n.* The early part of the daytime, ending at noon or at the hour of the midday meal

morning (12x), morninge (5x), mornings (1x)

morphew, *n.* A leprous or scurfy eruption

morfew (3x), morfews (1x)

morrow, *n.* The day next after the present

morow (1x), morrow (1x)

morsel, *n.* A bite; a mouthful

morsell (1x), morsells (1x)

mortar, *n.* A vessel of a hard material having a cup-shaped cavity, in which ingredients used in pharmacy, cookery, etc., are pounded with a pestle

morter (15x)

most, *a.* Most

moist (2x), moiste (1x), most (5x), moste (7x)

mouse-ear, *n.* A species of hawkweed, *Hieracium Pilosella*

mouse ear (1x), mouseare (1x), mousyear (1x), mowseare (2x), mowsyer (2x)

mouth, *n.* The mouth

mouthe (6x), mowth (3x), mowthe (18x), mowthes (1x)

movable, *a.* Capable of being moved

moveble (1x)

move, *v.* To change the place or position of

move (2x), moving (1x)

much, *a.* Much

much (3x), muche (103x), mykell (1x)

mugwort, *n.* The plant *Artemisia vulgaris*, formerly also called motherwort

mugwood (1x), mugwoort (3x), mugwoorte (3x)

mull, *v.* To grind to powder, pulverise

mull (1x)

mullein, *n.* The common name of various species of the genus *Verbascum*,

N

consisting of herbaceous plants with woolly leaves and an erect woolly raceme of yellow flowers

molayne (1x), moleyn (1x),
molleyne (1x), mullayne (1x)

muscadel, *n.* A strong sweet wine made from the muscat or similar grape

muscadell (1x)

must, *v.* Must

must (32x), muste (2x)

mustard, *n.* The seeds of black and white mustard ground or pounded to a powder

mustard (1x), mustarde (1x), musterd (4x)

myd(dest) → mid

myddle → middle

mydriff → midriff

mykell → much

mylk(e) → milk

mylne → mill

mylt → milt

mynced → mince

mynde → mind

mynt → mint

myrrh, *n.* A gum-resin produced by several species of *Commiphora* (*Balsamodendron*)

mir (2x), myr (1x), myrr (1x)

myrt(le), *n.* The fruit or berry of the myrtle tree

merthe (1x)

nail, *n.* Nail

nayle (1x)

naked, *a.* Naked, unclothed

naked (1x), nakid (2x)

namely, *b.* Particularly, especially, above all

namelie (3x), namelye (2x)

napkin, *n.* A square piece of linen, used at meals to wipe the fingers or lips and to protect one's garments

mipking (1x)

narrow, *a.* Narrow

narow (1x), narrow (2x)

natural, *a.* Natural

naturall (2x)

nature, *n.* Nature

nature (4x)

naughtily, *b.* Badly, poorly

noughtelie (1x), noughtilie (1x)

navel, *n.* The navel

navell (3x), navill (1x)

ne, *b.* Not

ne (1x)

near, *b.* Nearer or closer

neere (1x), nere (5x), neyr (1x)

neck, *n.* Neck

Neck (12x), necke (1x), nekk (2x)

need, *v.* To need



nede (7x), nedith (1x), nedithe (1x)	neuertheles (3x), nevertheless (3x)
need , <i>n.</i> Necessity	new , <i>a.</i> New
nede (8x), neide (1x)	new (26x), new, (1x), newe (2x)
needle , <i>n.</i> A needle	newly , <i>b.</i> Very recently or lately
nedle (3x), nedles (2x), neld (5x), nelde (4x)	newly (1x)
neither , <i>b.</i> Neither	next , <i>b.</i> Next
neither (1x), nether (6x)	next (4x)
<i>neld(e)</i> → needle	next , <i>a.</i> Next
<i>nese</i> → sneeze	next (5x)
nesh , <i>v.</i> To make soft	nigh , <i>a.</i> Near
nesherid (1x), nesheringe (1x)	nyghe (1x)
nesh , <i>a.</i> Soft in texture or consistency; yielding easily to pressure or force	night , <i>n.</i> Night
nesh (1x), neshe (2x)	nige (1x), night (13x), nightes (1x), nights (2x)
<i>nesid</i> → sneeze	nightly , <i>b.</i> At or by night; during the night
<i>nether</i> → neither	nightlie (1x)
nethermost , <i>a.</i> Lowest, undermost	nitreat → entreat
nethermost (2x), nethermoste (1x)	no , <i>b.</i> Not any
nettle , <i>n.</i> A plant of the genus <i>Urtica</i> , of which the commoner species (<i>U. dioica</i> , the Common or Great Nettle, and <i>U. urens</i> , the Small Nettle) grow profusely on waste ground, waysides, etc.	no (36x), noo (2x)
nettell (2x), nettle (3x)	noble , <i>a.</i> Illustrious or distinguished by position, character, or exploits
<i>neuer</i> → never	noble (2x)
<i>neuertheles</i> → nevertheless	nobleness , <i>n.</i> The state or quality of being noble
never , <i>b.</i> Never	noblenes (1x)
neuer (2x), never (6x)	noddle , <i>a.</i> The back of the head
nevertheless , <i>b.</i> Nevertheless	noddle (2x), nodle (1x)
	noise , <i>n.</i> Noise
	noise (1x)
	noisome , <i>a.</i> Harmful, injurious, noxious



noysomme (1x)	norishithe (1x)
noli me tangere , <i>n.</i> An eroding ulceration attacking the face	now, b. Now
noli me tangere (1x)	now (5x)
<i>noosgays</i> → nosegays	<i>noysomme</i> → noisome
<i>norishithe</i> → nourish	number, n. Number
north , <i>n.</i> That north	number (1x)
northe (1x)	nut , <i>n.</i> A fruit which consists of a hard or leathery (inindehiscent) shell enclosing an edible kernel; the kernel itself
nose , <i>n.</i> Nose	nutt (1x)
nose (14x)	nutmeg , <i>n.</i> A hard aromatic seed, of spheroidal form and about an inch in length, obtained from the fruit of an evergreen tree (<i>Myristica fragrans</i> or <i>officinalis</i>)
nosegays , <i>n.</i> A bunch of flowers or herbs (sweet-smelling flowers); a bouquet, a posy	nutmiggs (1x), nutmugge (1x), nutmuggs (1x)
noosgays (1x)	<i>nyghe</i> → nigh
nostril , <i>n.</i> Nostril	
nose thirle (2x), nose thirl (2x), nose thirlls (3x), nose thrille (1x), nose thrills (1x), nosethirlls (1x), nosethrills (1x)	
not, b. Not	O
not (142x)	
note , <i>v.</i> To observe or mark carefully; to give heed or attention to	oak , <i>n.</i> The oak, the well-known British and European forest tree
note (2x)	oke (3x)
nothing , <i>n.</i> Nothing	oak-fern , <i>n.</i> Variously applied by the early herbalists to the Common Polypody (which grows on the trunks of trees)
nothing (5x), nothinge (4x)	okefern (1x)
nought , <i>n.</i> Nothing	oak-tree , <i>n.</i> Oak-tree
nought (3x)	oke tree (1x)
<i>nough(telie)(tilie)</i> → naughtily	
nourish , <i>v.</i> To sustain (a person or living organism) with food or proper nutriment	

oat, *n.* The grains of a hardy cereal forming an important article of food in many countries for men

oots (1x), oten (3x)

occasion, *n.* A falling together or juncture of circumstances favourable or suitable to an end or purpose

occasion (1x)

occupy, *v.* To take possession of (a place) by settling in it

occupie (1x)

oder → **other**

off, *b.* Off

of (25x), off (6x)

office, *n.* A bodily or mental function as operating; the proper action of an organ or faculty

office (1x)

often, *b.* Often

oft (9x), ofte (3x), often (9x)

oftentimes, *b.* Often

oftentymes (1x), oftimes (2x)

oke → **oak**

okefern → **okefern**

oke tree → **oak-tree**

oil, *n.* Oil

oil (2x), oile (13x), oyl (1x), oyle (43x)

oil-de-bay, *n.* Oil of bay

oile de bay (1x), oyle de baie (1x), oyle de bay (1x), oyle de baye (2x)

ointment, *n.* An unguent

ointement (2x), ointmen (1x), ointment (10x), ointmment (1x), oyntment (25x), oyntments (2x)

old, *a.* Old

old (3x), olde (7x), olld (1x), oold (1x), ould (17x), oulde (4x)

olibanum, *n.* An aromatic gum resin obtained from trees of the genus *Boswellia*

olibannum (1x), Olibanum (15x)

olive-oil, *n.* The oil obtained from the pulp of olives

oile olive (1x), oyle oliff (1x), oyle olive (1x), oyle olyve (1x)

once, *b.* Once

once (4x), ones (7x)

onion, *n.* An onion

onyon (8x), onyons (4x), ynyons (1x)

only, *b.* Only

onelie (2x), onely (2x), onelye (2x), onlie (2x), onlye (1x)

oots → **oat**

open, *v.* To open

open (21x), opene (1x), opened (1x)

openly, *b.* Openly

openly (1x)

oppress, *v.* To press injuriously upon or against



oppressid (1x)	oune → own
ordain , <i>v.</i> To put in order, arrange, make ready, prepare	out , <i>b.</i> Out
ordained (1x)	out (38x), oute (21x), owt (15x), owte (4x), owter (1x)
order , <i>v.</i> To give order or arrangement to; to put in order	outward , <i>b.</i> Outward
ordering (1x), ordred (1x)	outward (3x), outwards (1x), owtwarde (1x)
origan , <i>n.</i> A plant of the <i>genus Origanum</i> , as Wild Marjoram	outwardly , <i>b.</i> On the outside or outer surface; externally
origane (1x), orygane (1x)	outwardlie (1x), outwardly (1x)
orpiment , <i>n.</i> A bright yellow mineral substance, the trisulphide of arsenic, also called Yellow Arsenic, found native in soft	oven , <i>n.</i> A chamber or receptacle of brick, stonework, or iron, for baking bread and cooking food
orpiment (2x), orpyment (1x), orpyne (1x)	oven (2x)
orygane → origan	overmuch , <i>b.</i> Too great in amount; excessive
oten → oat	ouermuche (1x)
other , <i>a.</i> Other	overthwart , <i>b.</i> Over from side to side, or so as to cross something
oder (1x), other (134x)	ouerthwart (2x), ouerthwarte (1x)
otherwise , <i>b.</i> Otherwise	owe , <i>v.</i> Ought
ortherwise (1x), otherwise (7x)	ough (1x), ought (22x), oughte (2x)
ouermuche → overmuch	own , <i>a.</i> Own
ouerthwart(e) → overthwart	oune (1x), owne (2x)
ough(t)(te) → owe	ox , <i>n.</i> Ox
ould(e) → old	ox (1x), oxe (4x), oxen (1x)
ounce , <i>n.</i> A unit of weight; originally the twelfth of a pound	oyl(e) → oil
ounce (11x), ounces (13x),	oyntment → ointment
ownce (3x), owncs (1x), vnce (53x), vnces (44x), vnccs (1x),	oyster , <i>n.</i> Oister
vnguce (1x), vnnce (1x)	oyster (1x)

P

pacient → **patient**

pain, *n.* Pain

 pain (7×), paine (2×), Payne (1×)

pain, *v.* To inflict pain upon, cause to suffer; to hurt

 pained (1×)

painful, *a.* Full of or causing pain or suffering

 painfull (2×)

pair, *n.* Pair

 pair (2×), paire (3×), paires (1×),

 pare (2×), payer (1×)

paisture → **pasture**

palate, *n.* The roof of the mouth

 palace (2×)

palm, *n.* The part of the hand between the wrist and the fingers

 palme (1×), palmes (1×), palms (1×)

palsy, *n.* A disease of the nervous system, characterised by impairment or suspension of muscular action or sensation

 palsey (1×), palseys (1×)

pan, *n.* A vessel, of metal or earthenware, for domestic uses, usually broad and shallow; the skull, especially its upper part

 pan (30×), pane (8×), pann (2×),

panne (2×)

pant, *v.* To breathe hard or spasmodically

 pantith (1×)

pap, *n.* A teat or nipple

 pap (3×), papp (3×), pappe (2×),
 pappes (2×)

papie → **poppy**

parcelie → **parsley**

pare, *v.* To trim by cutting off projecting, irregular, or superficial parts; to cut close to the edge so as to make even or neat

 pare (2×), pared (1×), parid (1×),
 paring (1×)

paritorie → **pellitory**

parrosen → **pitch-resin**

parsley, *n.* A biennial umbelliferous plant (*Petroselinum sativum*, sometimes classed as *Apium* or *Carum Petroselinum*), a native of the Mediterranean region

 parcelie (1×), parselie (3×),
 parsilie (1×), percelie (1×),
 percellie (1×)

parsons → **person**

part, *v.* To divide into parts

 parted (1×), partid (1×), pertid (1×)

part, *n.* Part

 part (3×), parte (30×), partes (5×), partie (2×), parties (1×),



parts (5x), perte (2x)	pegle → pigle
partly , <i>b.</i> With respect to a part; in part; not wholly	pellamountain , <i>n.</i> A name of wild thyme
partlie (1x)	pelymointaine (1x), puliole (1x), puliole mountain (1x)
pass , <i>v.</i> To pass	pellet , <i>n.</i> A pellicle, a thin or fine skin or membrane
paise (1x), pas (2x), pases (1x), passe (1x), passid (2x), passinge (3x), passinge (1x), past (2x)	pellet (2x)
paste , <i>n.</i> Paste	pellitory , <i>n.</i> A composite plant, <i>Anacyclus Pyrethrum</i> , called distinctively pellitory of Spain
paste (1x)	paritorie (3x), pelleter (1x), pelletts (1x), pelliter (1x), pellytour (1x), peritorie (2x)
paste , <i>v.</i> To paste	pen , <i>n.</i> A feather of a bird, a plume
pasted (1x)	pen (6x), pens (1x)
pasture , <i>n.</i> The growing grass or herbage eaten by cattle	pence , <i>n.</i> A collective plural of penny
paisture (1x), pasture (1x)	pence (1x)
patient , <i>n.</i> Patient	penetrate , <i>v.</i> To penetrate
pacient (2x), patient (108x), paciente (1x)	penetrate (1x)
pea , <i>n.</i> The round seed of <i>Pisum sativum</i>	penny , <i>n.</i> An English coin of the value of 1/12 of a shilling
pease (2x)	penny (1x), pennyes (1x)
pearl , <i>n.</i> A thin white film or opacity growing over the eye; a kind of cataract	pennywaight , <i>n.</i> A measure of weight, equal to 24 grains,
perle (1x)	penie weight (1x), penny weight (1x), pennywaight (9x), pennywaights (8x), peny weight (3x), penye weight (2x)
pe(e)ce → piece	pennywort , <i>n.</i> A common plant in the west of England and in Wales, having peltate leaves of a rounded concave
peck , <i>n.</i> A measure of capacity used for dry goods; the fourth part of a bushel, or two gallons	
peck (1x), pek (1x), pekk (1x)	
peel , <i>v.</i> To strip of its natural integument or outer layer, as an orange, potato, or the like of its skin or rind	
pill (2x)	



form, and growing in the crevices of rocks and walls; Navelwort

pennywoort (1×), penywoort (1×)

pennyworth, n. The amount of anything which is or may be bought for a penny; as much as is worth a penny

penie woorthe (2×), peniwoorth (1×), peniwoorthe (2×), penniworthe (1×), penny woorthe (1×), pennywoorthe (2×), pennyworthe (1×), penyworth (1×), penyworthe (1×)

pepper, n. Pepper

pepper (13×)

peradventure, n. By chance, by accident
peraventure (1×)

perceive, v. To take in or apprehend with the mind or senses

perceave (2×), perceve (1×), perceyve (3×), perceyved (1×), perceyvest (1×), perceyyd (1×), persiue (1×)

perce(d) → pierce

percel(l)ie → parsley

perchance, b. By chance

perchaunce (1×)

perfect, a. Perfect

perfifit (1×), perfit (2×), perfite (2×), perfyt (1×)

perfectly, b. Perfectly

perfectlie (2×), perfitle (1×)

perfume, n. The odorous fumes or vapour given off by the burning of any substance

perfume (1×)

perilous, a. Fraught with peril; causing or occasioning great danger

perilous (1×), perlous (1×)

peritorie → pellitory

perle → pearl

perrosen → pitch-resin

persid → pierce

person, n. A person

parsons (1×), persone (1×), persons (1×)

pertid → part

pestilence, n. Any fatal epidemic disease, affecting man or beast, and destroying many victims

pestilein (1×), pestilenc (5×), pestilence (10×)

pestle, n. An instrument for bruising or pounding substances in a mortar

pestell (1×)

phisici(an)(ons) → physician

phisick → physic

phlegm, n. The thick viscid fluid or semifluid substance secreted by the mucous membranes

fleme (1×), flewm (1×), flewme (5×)

philme → film



physic, *n.* The knowledge of the human body; medical science, medicine

phisick (2x)

physician, *n.* One who practises the healing art, including medicine and surgery

phisician (1x), phisicions (1x)

pia mater, *n.* A delicate fibrous and very vascular membrane which forms the innermost of the three meninges enveloping the brain and spinal cord

pia matter (2x)

pick, *v.* To pierce, penetrate, indent, dig into, or break the surface of (anything) by striking it with something sharp or pointed

pycked (1x), pyke (2x), pyked (2x)

piece, *n.* A part, bit, or fragment of anything

pece (18x), peces (2x), pecs (1x), peece (3x)

pierce, *v.* To penetrate, or run through or into

perce (1x), perced (3x), persid (1x)

pig, *n.* The young of swine

pigg (1x)

pigle, *n.* The Stitchwort, *Stellaria Holostea*

pegle (3x), pigle (1x)

pill, *n.* A small ball or globular mass of

medicinal substance, made up of a size convenient to be swallowed whole

pill (1x)

pill → peel

pillow, *n.* A support for the head in sleeping or reclining

pillows (1x)

pimpernel, *n.* The common name of *Anagallis arvensis* (family *Primulaceæ*), a small decumbent annual found in cornfields and waste ground

pimpernell (4x), pympernell (2x)

pimple, *n.* A small solid rounded tumour of the skin, usually inflammatory, without, or rarely with, suppuration

pimples (2x), pymples (3x)

pin, *n.* A small piece of wood, metal, or other solid substance, of cylindrical or similar shape, often tapering or pointed, used for some one of various purposes, as to fasten or hold together parts of a structure

pynnes (1x), pynus (1x)

pine, *n.* A tree of the genus *Pinus*, or of various allied coniferous genera

pyne (3x)

pinson, *n.* Pincers, forceps

pinsonnes (1x), pynsons (1x)

pint, *n.* A measure of capacity for liquids (also for corn and other dry substances of powdery or granular nature), equal to



half a quart or 1/8 of a gallon; A pint
pint (3x), pinte (10x), pints (3x),
pynt (6x), pynte (15x), pynts (1x)

pintle, *n.* The penis
pintill (4x)

pipe, *n.* A large cask, of more or less
definite capacity

pipe (7x), pipes (1x), pype (1x)

piss, *v.* To urinate, make water
pissee (2x), pissed (1x), pisseth
(1x), pissing (1x)

piss, *n.* Urine
pys (1x)

pit, *n.* A hole or cavity
pitt (2x)

pitch, *n.* A tenacious resinous substance,
of a black or dark brown colour
becoming a thick viscid semi-liquid
when heated

piche (3x), pitche (4x)

pitch-resin, *n.* The resin or turpentine
which exudes from the pitch tree

parrosen (1x), perrosen (1x)

pith, *n.* The central column of spongy
cellular tissue in the stems and branches
of dicotyledonous plants

pith (1x), pithe (3x), pythe (1x)

place, *n.* Place
place (58x), places (5x), placis
(16x), plaise (2x)

plague, *n.* A blow, a stroke; a wound
plage (1x)

plain, *a.* Flat, level, even; free from
elevations and depressions
playne (1x)

plainly, *b.* In a clear or distinct manner
plainly (1x)

plantain, *n.* A plant of the *genus Plantago*, as the Greater Plantain (*P. major*), a low herb with broad flat leaves spread out close to the ground, and close spikes of inconspicuous flowers, followed by dense cylindrical spikes of seeds.

plaintaine (1x), plantain (1x),
plantane (1x), planteyn (1x),
plaunteyn (1x), playntain (2x),
playntane (1x)

plaster, *n.* An external curative
application, consisting of a solid or
semi-solid substance spread upon a piece
of muslin, skin, or some similar material

plaister (76x), plaisters (1x),
plaistre (1x), plaster (6x),
plasters (1x), playster (2x)

plate, *n.* Plate
plaite (1x), plate (1x)

pleasant, *a.* Pleasant
pleasant (2x)

pleasure, *n.* Pleasure
pleasour (1x), pleasure (1x)

plome → **plum**

plum, *v.* To swell up
plome (1x)



pock, *n.* A pustule or spot of eruption in any eruptive disease

pocks (1x)

pocket, *n.* A bag or sack

pocket (2x), pockit (2x), poket (1x), pokket (1x)

point, *n.* A minute hole or impression made by pricking

point (1x), poynt (1x)

poisonous, *a.* Venomous

poyson (1x)

polypody, *n.* A fern of the genus *Polypodium*

polipodin (1x), polipodium (1x)

polypus, *n.* A general term for tumours of various kinds, arising from a mucous or serous surface

polip (1x), polipus (4x)

pomegranate, *n.* The fruit of the tree *Punica Granatum*, family *Myrtaceæ*, a large roundish many-celled berry, with many seeds, each enveloped in a pleasantly acid juicy reddish pulp

pomegarnet (1x), pomgarnet (1x)

poor, *a.* Poor

poore (1x)

poplar, *n.* A tree of the genus *Populus*, comprising large trees of rapid growth, natives of temperate regions

popler (1x), populer (2x)

poppy, *n.* A plant (or flower) of the

genus *Papaver*, comprising herbs of temperate and subtropical regions, having milky juice with narcotic properties

papie (1x), poppy (1x)

populeon, *n.* An ointment made of the buds of the Black Poplar

popeleon (1x), popilion (2x)

pork, *n.* A swine, a hog, a pig

pork (1x)

portion, *n.* A part or share

porcion (2x), porcions (1x)

posset, *n.* A drink composed of hot milk curdled with ale, wine, or other liquor, often with sugar, spices, or other ingredients

posset (7x), possett (1x), possit (1x)

possibility, *n.* The state, condition, or fact of being possible

possibilitie (1x)

possible, *a.* Possible

possible (2x)

pot, *n.* A vessel of cylindrical or other rounded form, and rather deep than broad, commonly made of earthenware or metal (less commonly glass), used to hold various substances, liquid or solid, for domestic or other purposes.

pot (6x), pott (14x)

potica(ire)(rie) → apothecary

pottage, *n.* A dish composed of



vegetables alone, or along with meat, boiled to softness in water, and appropriately seasoned

potage (3x)

pottle, *n.* A measure of capacity for liquids equal to two quarts or half a gallon: now abolished.

pottel (1x), pottell (11x), pottle (1x)

poumishe → **pumice**

pound, *n.* A measure of weight and mass derived from the ancient Roman libra, but very variously modified in the course of ages in different countries, and as used for different classes of things

pound (40x), pounde (2x), pounds (15x), pownd (4x), pownde (2x)

pour, *v.* To emit in a stream; to flow out of a vessel or receptacle

powr (1x), powre (9x)

powder, *v.* To sprinkle (food) with a condiment of powdery nature; to season, spice

powderid (2x), powdred (2x), power (1x)

powder, *n.* Any solid matter in a state of minute subdivision

powder (1x), pouder (8x), powder (148x), powders (2x)

practice, *n.* The action of doing something; performance

practise (4x), prasicthe (1x)

practise, *v.* To perform, do, act

practisid (1x), practized (1x)

praise, *n.* The action or fact of praising; the expression in speech of estimation

praise (1x)

praise, *v.* To value, appraise

prasid (1x)

precede, *v.* To go before, precede
preceden (2x)

precious, *a.* Of great price; having a high value

precious (7x), preciouse (8x), pretios (4x), pretiouse (2x)

preservative, *n.* A medicine that preserves health, protecting from or preventing disease

preservatyve (1x)

press, *v.* To act upon (a body) with a continuous force directed towards or against it

presse (3x), pressed (1x), pressinge (1x)

pretty, *a.* Pretty

pretie (2x)

previd → **prove**

prick, *v.* To pierce slightly, make a minute hole with a fine or sharp point

prickid (1x), pricking (1x), priking (3x)

prick, *n.* A puncture

prick (1x)



prickle, *v.* To affect with a prickling sensation

pikelethe (1x)

primrose, *n.* A well-known plant, bearing pale yellowish flowers in early spring, growing wild in woods and hedges and on banks

prymerose (1x), prymrose (2x)

principal, *a.* First or highest in rank or importance

principall (1x)

principally, *b.* In the chief place

principaly (1x)

print, *v.* To impress or stamp with a seal, die, or the like

print (1x)

privity, *n.* The private parts

privyte (1x), pryytie (1x)

privy, *a.* That is of one's own private circle or companionship

pryvie (1x), pryy (1x)

proche, *v.* To prick, pierce, spur

proche (1x)

profit, *n.* Profit, advantage

profitt (1x)

profit, *v.* To be of advantage, use, or benefit to; to do good to; to benefit

proffitt (1x), profithe (1x)

prolong, *v.* To lengthen out in time; to extend in duration; to cause to continue or last longer

prolonging (1x)

prong, *v.* To pierce or stab with a prong; to fork

spronge (1x)

proper, *a.* Own; owned as property

proper (4x)

proportion, *v.* To adjust in proper proportion to something else, as to size, quantity, number, etc.

proportion (1x), proportioned (1x)

proud, *a.* Proud

prowd (1x), prowde (2x)

prove, *v.* To prove

previd (2x), prove (2x), proved (3x), provid (9x)

prownes → **prune**

prune, *n.* The fruit of the plum-tree

prownes (1x)

prym(e)rose → **primrose**

pryv(ie)(y) → **privy**

pryytie → **privity**

puliol royal, *n.* Pennyroyal

pulial royall (1x), puliali roiall (1x)

puliole (mountain) → **pellamountain**

pull, *v.* To pull

pull (8x)

pulse, *n.* The place where the pulse occurs or is felt

pulses (1x)

pumice, *n.* As a material used for smoothing or polishing



poumishe (1x)	put , <i>v.</i> To put
pure , <i>a.</i> Not mixed with anything else; free from admixture or adulteration; unmixed	iput (1x), put (280x), putes (1x), putt (4x), putte (2x), putten (1x), putting (4x), puttinge (2x), puttethe (1x), putto (1x)
pure (3x)	
purgation , <i>n.</i> The clearing away of impurities	<i>py(c)ke</i> → pick
purgacione (2x), purgacions (1x), purgation (1x)	<i>pympernell</i> → pimpernell
purge , <i>v.</i> To make physically pure or clean; to cleanse	<i>pymples</i> → pimple
pourge (1x), purg (2x), purge (10x)	<i>pyn(n)e</i> → pine
purple , <i>n.</i> A purple or livid spot, botch, or pustule	<i>pynsons</i> → pinson
purples (2x)	<i>pynt(e)</i> → pint
purple , <i>a.</i> Purple	<i>pynus</i> → pin
purple (1x)	<i>pype</i> → pipe
purpose , <i>n.</i> Purpose	<i>pys</i> → pis
purpose (1x)	<i>pythe</i> → pith
purse , <i>n.</i> A purse	
purse (1x)	
purslane , <i>n.</i> A low succulent herb, <i>Portulaca oleracea</i> , widely distributed throughout tropical and warmer temperate regions, used in salads, and sometimes as a pot-herb, or for pickling	
purselein (1x), purselyne (1x)	Q
pustule , <i>n.</i> A small conical or rounded elevation of the cuticle; a pimple; a blister	<i>qnar(r)ell</i> → knar
pustules (1x)	quantity , <i>n.</i> Size, magnitude, dimensions.
	quantite (5x), Quantitie (40x), quantity (5x), quantitye (3x), quntite (1x)
	quart , <i>n.</i> An English measure of capacity, one-fourth of a gallon, or two pints
	quart (3x), quarte (13x), quarts (3x)
	quartan , <i>a.</i> Characterised by the occurrence of a paroxysm every fourth

day

quartan (1x), quartane (1x)

quarter, *n.* One of four equal or corresponding parts into which anything is or may be divided

quarten (1x), quarter (30x),
quarterone (1x), quarters (3x),
quartron (2x), quatrone (1x)

quench, *v.* To put out, extinguish
quenche (2x)

quick, *a.* Quick
quick (2x)

quick, *b.* Quickly
quick (1x)

quicken, *v.* To make (liquor or medicine) more sharp or stimulant
Quiken (2x)

quicklime, *n.* Lime which has been burned and not yet slaked with water
quick lyme (2x)

quickly, *b.* Quickly
quickly (1x), quicklye (1x)

quicksilver, *n.* The metal mercury
quick silver (6x), quick sylver (2x), quicksilver (3x)

quince, *n.* The hard, acid, yellowish, pear-shaped fruit of a small tree (*Pyrus Cydonia*) belonging to the pear-family, used in cookery as a preserve or to flavour dishes of other fruits
quinches (1x)

quint foyle → **cinquefoil**

quishions → **cushion**

quotidian, *a.* An intermittent fever or ague, recurring every day
quotidian (1x)

R

race, *n.* A root (of ginger)
race (1x), rases (1x)

radish, *n.* The fleshy, slightly pungent, root of a widely cultivated cruciferous plant (*Raphanus sativus*)

Radishe (4x), Radishes (1x)

rain, *n.* Rain
raine (1x)

rain, *v.* To rain
rayneth (1x)

raines → **reins**

raise, *v.* To set upright; to make to stand up
Raise (1x), raised (1x), Rasinge (1x), reise (1x)

rane → **run**

rinkle, *v.* To fester to a degree that causes pain
Rankelid (1x), Rankelithe (1x)

rasing, *n.* Shavings, scrapings
rasinge (1x)

raspis, *n.* A kind of wine used in the fifteenth and sixteenth centuries
raspise (1x)



rat, n. A rat	remedy prepared in accordance with this
ratts (1×)	Recipe (1×)
rate, n. Ratio, proportion	recipient, n. Recipient
Retes (1×)	recipient (1×)
rather, b. Rather	recluse, n. A person shut up from the
rather (1×)	world for the purpose of religious
ratton, n. A rat	meditation
Ratons (1×)	recluse (1×)
raw, a. Uncooked, raw	recover, v. To recover
raw (1×), Rawe (1×)	recover (1×)
razor, n. A razor, a sharp-edged	red, a. Red
instrument used for shaving the beard or	read (17×), reade (6×), red (9×),
hair	reddes (1×), rede (11×), reed (7×)
Rasour (3×), rasure (5×)	reddish, a. Somewhat red, red-tinted
reach, v. To reach	redishe (1×)
reache (2×), reche (2×), reched	reder → reader
(2×), reching (1×), rechythe (1×)	re(die)(dye) → ready
reader, n. One who reads or peruses	redness, n. The state or quality of being
reder (1×)	red
ready, a. Ready	readnes (2×)
redie (2×), redye (2×)	regard, n. Regard
receipt, n. A formula or prescription, a	regard (1×)
statement of the ingredients necessary	rehearse, v. To repeat, say over again
for the making of some preparation	rehearsid (1×), rehersid (1×)
receat (2×), receipt (1×), receyt	reins, n. The kidneys
(2×)	raines (1×), Reinges (1×), Reynes
receive, v. To receive	(1×), Reynolds (1×)
receave (1×), receaving (1×),	reise → raise
receyve (1×)	relent, v. To melt under the influence of
rech(e) → reach	heat; to dissolve into water
recipe, n. A formula for a medical	relent (1×)
prescription; a prescription, or the	relieve, v. To relieve

Releve (1x)	restore (1x), restored (2x),
remain, v. To remain	restorid (2x), restoring (1x), restoringe (1x)
remain (2x), remaine (2x), remanithe (1x), remanynge (1x), remayn (1x)	
remedy, n. A cure for a disease or other disorder of body or mind	restrain, v. To check, hold back, or prevent
remedie (4x), remedy (1x), remedye (1x)	Restaynthe (1x), Restrein (1x)
remedy, v. To heal, cure	restrictive, a. Having astringent or binding properties; of an astringent nature
remedie (2x)	restrictive (1x), restrictyve (2x)
remove, v. To remove	Retes → rat
remove (4x), removing (1x)	rhubarb, n. The medicinal rootstock of one or more species of <i>Rheum</i>
renew, v. To make new, or as new, again	Rubarb (1x)
renew (2x)	rib, n. Rib
renewing, n. The action of renewing	ribb (1x), ribbe (2x)
renewing (1x)	ribwort, n. The Narrow-leaved Plantain (<i>Plantago lanceolata</i>); ribgrass
require, v. To require	ribwoort (2x), ribwoorte (1x), rybgras (1x)
require (1x), requirithe (2x)	riddle, n. A coarse-meshed sieve, used for separating chaff from corn, sand from gravel, ashes from cinders, etc.
resolve, v. To melt, dissolve	riddell (1x)
resolvid (1x)	Rie → rye
rest, n. That which remains over; a remainder or remnant	rig, n. The back, in man or animals
rest (2x)	rigg (1x)
rest, v. To rest	right, a. Right as opposed to left; correct, proper
rest (15x), restithe (1x)	right (9x), RYGHHT (2x)
restorative, n. A food, cordial, or medicine, which has the effect of restoring health or strength	rind, n. The bark of a tree or plant; sometimes, inner as contrasted with
Restorityve (1x)	
restore, v. To bring back to the original state; to improve, repair	

outer bark	over and over; to pile up in this manner
rynde (6x), ryne (2x)	Role (1x), roll (3x), roule (1x), rowle (2x)
ringworm , <i>n.</i> A skin-disease usually manifesting itself in circular patches, and frequently affecting the scalp in childhood; tinea	roll , <i>n.</i> A roll
RINGE WORME (1x), ringwoormes (2x)	role (2x), rolles (1x), rolls (2x), Roole (1x), Rooles (1x), Rools (1x)
ripe , <i>a.</i> Ready for reaping or gathering; arrived at the stage in which they are most fit for eating	root , <i>n.</i> The root of a plant
rype (2x)	root (3x), roote (13x), rootes (25x), roots (17x), roottes (1x), Rote (4x), rotes (3x), rots (2x), ruts (1x)
ripe , <i>v.</i> To grow or become ripe	root , <i>v.</i> To fix or firmly attach by the root or roots
ripe (12x), Ripen (1x), riping (1x), ripp (1x), rype (1x), rypid (1x), rypinge (1x), rypyd (1x)	rooted (1x)
riping , <i>n.</i> Ripening	roose → rise
riping (2x), Ripinge (1x)	rope , <i>n.</i> A length of strong and stout line or cordage
rise , <i>v.</i> To get up from sitting, lying, or repose	rope (1x)
rise (1x), rising (1x), risinge (2x), risithe (1x), roose (1x)	rope , <i>v.</i> To tie, bind, fasten, or secure with a rope
rishe → rush	Rope (1x)
roast , <i>v.</i> To roast	rose , <i>n.</i> A well-known beautiful and fragrant flower which grows upon a shrub of the <i>genus Rosa</i>
Roost (1x), rooste (1x), rost (1x), rost (2x), rosted (2x), rostid (2x)	Roos (1x), Ros (2x), Rose (2x), roses (14x)
rodwood , <i>n.</i> One of several West Indian trees or shrubs belonging to the genera <i>Lætia</i> , <i>Eugenia</i> , and <i>Calyptanthes</i>	rose-campion , <i>n.</i> A pretty garden-plant of the <i>genus Lychnis</i> or <i>Agrostemma</i> , having rose-coloured flowers
Rudwoort (1x)	rosecampie (1x)
roll , <i>v.</i> To form into a mass by turning	rose-leaf , <i>n.</i> The leaf of a rose; usually,

a rose-petal

rose leaves (1x), rose leves (1x)

rosemary, *n.* An evergreen shrub (*Rosmarinus officinalis*), native to the south of Europe, the leaves of which have an agreeable fragrance, and have been much used in perfumery, and to some extent in medicine

rose marie (2x), Rose merie (1x),
rosemarie (4x), Rosemary (1x)

rosen, *a.* Formed or consisting of roses; pertaining to roses

rosen (4x), Rosyn (4x)

roset, *n.* Rosin, resin

rosett (3x)

rose-water, *n.* Water distilled from roses, or impregnated with essence of roses, and used as a perfume, etc.

roose water (1x), rose water (5x),
rose watter (2x)

rot, *v.* To undergo natural decomposition; to decay, putrefy

Roten (1x), Roting (1x), rott (1x), ROTTE (1x), Rotten (3x), rotting (1x), rotythe (1x)

rouge, *n.* A fine red powder prepared from safflower

roug (2x), Rouges (1x), ruug (2x)

rough, *a.* Having a surface diversified with small projections, points, bristles, etc., so as to be harsh or disagreeable to

the touch

roughe (1x)

round, *a.* Spherical; resembling a ball
round (2x), rounde (2x), rownd (1x), rownde (1x)

round, *b.* In a ring or circle

round (3x), rounde (2x), rownd (2x)

rove, *v.* To form (slivers of wool or cotton) into roves or rovings

Roue (1x)

royal, *a.* Magnificent, splendid
royall (1x)

rub, *v.* To rub

rub (3x), rubb (3x), rubbing (3x)

Rubarb → **rhubarb**

rue, *n.* A perennial evergreen shrub of the genus *Ruta* (*Ruta graveolens*), having bitter, strong-scented leaves which were formerly much used for medicinal purposes

Reu (2x), Rew (21x)

rule, *n.* A principle, regulation, or maxim

rule (2x)

run, *v.* To run

rane (3x), run (3x), rune (12x)

running, *a.* Flowing

runing (5x), runinge (3x), runne (1x), running (3x), runninge (1x), Runnyng (1x), Runyng (1x)



rush, *v.* To tie up, work or make, with
rushes

rishe (1x)

rust, *n.* A coating or stain resembling
rust

rust (1x)

rusty, *a.* Covered or affected with rust or
red oxide of iron; rusted

ruts → **root**

Rustie (1x), rusty (1x)

ruug → **rouge**

rybgras → **ribwort**

rye, *n.* A food-grain obtained from the
plant *Secale cereale*, extensively used in
northern Europe

Rie (3x), rye (2x)

Ryght → **right**

ryn(de)(e) → **rind**

ryp(e) → **ripe**

S

sack, *n.* A general name for a class of
white wines formerly imported from
Spain and the Canaries

sack (2x), seck (1x)

sad, *a.* Steadfast, firm, constant
sad (2x)

safe, *a.* In sound health, well, whole
Save (2x)

saffron, *n.* An orange-red product

consisting of the dried stigmas of *Crocus sativus*, used chiefly for colouring confectionery, liquors, etc., and for flavouring; formerly extensively used in medicine as a cordial and sudorific

Saffron (1x), safron (2x), safrone (1x), saphron (1x)

sagapenum, *n.* A gum-resin, the concrete juice of *Ferula persica*, formerly used as an antispasmodic and emmenagogue, or externally

sarapine (1x), Serapine (2x)

sage, *n.* A plant of the genus *Salvia*, an aromatic culinary herb

sage (12x), Saven (1x), Savge (4x), Sawge (7x), sege (2x)

sal ammoniac, *n.* Salt of Ammon, a hard white opaque crystalline salt

sal armoniack (1x), sal armoniak (1x)

salad, *n.* A cold dish of herbs or vegetables

salades (1x)

salat-oil, *n.* Olive oil of superior quality, such as is used in dressing salads

Salat oyle (1x)

salpetre, *n.* Potassium nitrate

sal peter (2x)

salt, *n.* Salt

salt (11x), salte (2x)

salve, *n.* A healing ointment for application to wounds or sores



salve (16x), salves (2x), selven (1x)

same, a. Same

same (64x), sayme (2x)

sanative, a. Having the power to heal; conducive to or promoting health; curative, healin

sanatif (1x)

sand, n. Sand

sand (1x)

sanicle, n. The umbelliferous plant *Sanicula europaea* (more fully wood sanicle)

sanicle (3x)

sarapine → sagapenum

saucefleme, n. A swelling of the face accompanied by inflammation, supposed to be due to salt humours

sawce fleme (1x), Sawce flewin (1x), Sawce flewme (1x), Sawcefleame (1x), Sawcefleame (1x)

saucer, n. A receptacle for holding the condiments at a meal

saucer (1x), sawcer (3x)

Saunders → alexanders

save, v. To rescue or protect

save (1x), savid (2x), Saving (4x), savinge (2x)

Saven → sage

savin, n. A small bushy evergreen shrub, *Juniperus sabina*, a native of Europe and

Western Asia, with spreading branches completely covered with short imbricating leaves, and bearing a small, round, bluish-purple berry

Savyne (1x)

Savge → sage

savour, n. Quality in relation to the sense of taste; a specific mode of this quality, as sweetness, bitterness, etc.

savor (1x), savour (2x)

saxifrage, n. Any plant of the genus *Saxifraga*, as *S. granulata* (White Meadow Saxifrage)

saxifrage (5x)

say, v. To say

said (75x), saide (13x), saie (5x), saith (1x), saithe (1x), say (6x), sayd (2x), sayde (6x), seide (1x)

scab, n. Disease of the skin in which pustules or scales are formed

scabb (1x), SCABBE (1x), Scabbes (2x), scabe (1x), scubb (1x)

scabble, v. To scabble

scubble (1x)

scabious, n. Any of the herbaceous plants of the genus *Scabiosa*, formerly believed to be efficacious for the cure of certain skin-diseases

scabies (2x), scabions (2x), scabious (3x)

scald, a. Affected with the scall; scabby



scalde (1x)	pain in the great sciatic nerve and its branches
scald , <i>v.</i> To affect painfully and injure with very hot liquid or steam	Ciatica (1x), sciatica (2x)
skald (1x), skaled (1x), skalder (1x), skalding (2x), skaldith (1x)	scissors , <i>n.</i> Scissors
scalder , <i>v.</i> To scald, scorch	sisers (1x)
scalder (1x), scaldid (1x), scaldinge (1x)	scour , <i>v.</i> To cleanse or polish
scall , <i>n.</i> A scaly or scabby disease of the skin	scurre (1x), skourid (1x), skowrid (1x)
Scalles (1x), Skall (3x), skalle (2x), Skalles (6x)	scrab , <i>v.</i> To scratch, claw
scalp , <i>n.</i> The top or crown of the head; the skull, cranium	scrape (2x), scrapid (1x)
scalpp (1x)	scroffle , <i>n.</i> Scrofulous swellings
scammony , <i>n.</i> A gum-resin obtained from the tuberous roots of <i>Convolvulus Scammonia</i> used in medicine as a strong purgative	Scrophule (2x), scrophules (7x)
Scammony (1x), Scamonye (1x)	scruple , <i>n.</i> A unit of weight (20 grains)
scantly , <i>b.</i> Scarcely, hardly, barely	scruples (2x)
skantlie (1x), skantlye (1x)	scum , <i>n.</i> Foam, froth
scape → escape	scome (1x), Skome (1x)
scarce , <i>v.</i> To become less, diminish	scurf , <i>n.</i> A morbid condition of the skin
skarce (1x)	skoorf (1x)
scarth , <i>n.</i> A fragment, sherd	sealskin , <i>n.</i> The skin of any of the Fur Seals, prepared for use as a garment, for the covering of a box, etc
Scarthe (2x), skarthe (2x)	seale skyn (1x)
scatter , <i>v.</i> To dissipate, squander	searce , <i>n.</i> A sieve or strainer
Scater (1x)	serce (1x)
scavenge , <i>v.</i> To clean out	search , <i>v.</i> To explore, examine thoroughly
scauer (1x)	searche (2x), Searching (1x), searchith (1x), serche (1x)
sciatica , <i>n.</i> A disease characterised by	searcher , <i>n.</i> An instrument used in making a search
	sercher (2x)
	see , <i>v.</i> To see

saw (1x), se (11x), see (5x), seen (1x), seene (1x), sees (2x), seing (1x), seist (3x), sene (3x), seyst (1x)	<i>Serapine</i> → sagapenum
seed , <i>n.</i> Seed	serve , <i>v.</i> To serve
sed (2x), sede (23x), sedes (2x), seed (2x), seede (2x), seedes (3x)	serue (1x), serve (1x)
seed , <i>v.</i> To produce seed	serviable , <i>a.</i> Willing to serve, complaisant, obedient
sedith (1x)	serviable (1x)
seem , <i>v.</i> To seem	set , <i>v.</i> To set
Seame (1x), seme (2x), semeth (1x), semithe (4x)	set (28x)
seethe , <i>v.</i> To boil	sew , <i>v.</i> To sew
seath (3x), seeth (6x), Seethe (3x), seith (5x), Seithe (14x), seth (1x), sethe (24x), sething (2x), seyth (1x)	sew (23x), sewe (2x), sewed (1x), sewet (1x), sewid (3x), sewing (1x), sewinge (5x)
sege → sage	sewit → suet
seide → say	shadow , <i>n.</i> Shadow
selven → salve	shadow (1x)
send , <i>v.</i> To send	shaft , <i>n.</i> The long slender rod forming the body of a lance or spear, or of an arrow
send (2x), sendithe (2x)	shafte (3x)
sengreen , <i>n.</i> The houseleek, <i>Sempervivum tectorum</i>	shake , <i>v.</i> To shake
Sengren (1x), sengrue (1x)	sheyke (1x)
senna , <i>n.</i> A shrub of the genus <i>Cassia</i> , native in tropical regions, bearing yellow flowers and flat greenish pods	shall , <i>v.</i> Shall
Ceney (2x), Sene (1x)	shal (35x), shall (101x), shallt (1x), shalt (86x), shalte (4x), should (6x), shoulde (4x)
Senows → sinew	shape , <i>v.</i> To create; in later use, to form, fashion
senvy , <i>n.</i> The mustard plant	shapen (1x), shapper (1x)
senvey (1x), senvye (1x)	shard , <i>v.</i> To break into fragments
	sherde (1x)
	share , <i>n.</i> The division or fork of the body; the pubic region, groin

share (3x)	shiver, <i>v.</i> To tremble, shake, quiver
sharp, <i>a.</i> Well adapted for cutting or piercing; having a keen edge or point	sheveringe (1x)
sharp (2x), sharpe (5x)	
shave, <i>v.</i> To shave	shoe, <i>n.</i> Shoe
shaue (1x), shave (1x), shaven (1x), shevithe (1x)	shoes (1x)
sheaf, <i>n.</i> One of the large bundles in which it is usual to bind cereal plants after reaping	short, <i>a.</i> Short
cheyves (1x), Chyves (1x)	short (6x), shorte (4x)
sheep, <i>n.</i> Sheep	shortly, <i>b.</i> Shortly
shepe (15x), shepes (2x), sheps (1x)	shortlie (2x)
sheet, <i>n.</i> A napkin, cloth, towel	shot, <i>v.</i> To wound or hit with shot
sheets (2x), shete (1x), shytt (1x)	shot (1x), shott (1x)
shell, <i>n.</i> The hard outside covering of an animal, a fruit, etc	shoulder, <i>n.</i> Shoulder
shell (1x), shells (6x)	shoulder (3x), shoulders (1x), showlder (1x), shulder (1x)
shelfful, <i>n.</i> A quantity sufficient to fill a shell	show, <i>v.</i> To show
shelffull (1x)	shew (3x)
sherde → shard	shred, <i>v.</i> To rid (a tree, vine, vineyard) of superfluous growth; to prune
shert → shirt	Shred (1x)
sheveringe → shiver	shrew, <i>v.</i> To shrew
shevithe → shave	Shrew (4x), shrewe (3x), shrewed (1x)
shew → show	shrink, <i>v.</i> To become reduced in size, volume, or extent
shyke → shake	shrinking (2x), shrinkinge (1x), shrinkithe (1x), shronken (2x)
shift, <i>v.</i> To shift	shronken → shrink
shift (3x)	shytt → sheet
shirt, <i>n.</i> Shirt	sick, <i>a.</i> Suffering from illness of any kind
shert (1x), shirt (3x), shirte (1x)	seke (3x), sick (2x), sicke (1x), sike (1x), syck (1x)
	sick, <i>n.</i> A sick person

seke (1x), sick (2x), sikk (1x)	Synows (3x)
sickness, n. The state of being sick or ill	singular, a. Special
sicknes (2x), siknes (1x)	singular (2x)
<i>Sic(corie)(curie) → chicory</i>	siphac, n. The peritoneum
<i>Sicurie → chicory</i>	ciphac (1x)
side, n. Side	<i>sir(op)(ope)(upp) → syrup</i>
side (6x), sides (2x), syde (26x),	<i>sisers → scissors</i>
sydes (7x)	sit, v. To sit
sieve, n. A utensil consisting of a circular frame with a finely meshed or perforated bottom, used to separate the coarser from the finer particles of any loose material, or as a strainer for liquids	satt (1x), sit (5x), sitt (2x), sitten (1x), sitting (1x), sittinge (1x), sittith (1x), sittithe (1x)
sief (1x), sifte (1x)	sithe, n. Sithe
<i>sifte → sieve</i>	sithes (1x)
sight, n. Sight	<i>sitrion → citron</i>
sight (5x), sighte (1x)	<i>skald(ed)(er)(ing)(ith) → scald</i>
sign, n. A token or indication of some fact, quality, etc.	<i>Skall(e)(es) → scall</i>
signe (2x), signes (2x)	<i>skant(lie)(lye) → scantily</i>
silk, n. Silk	<i>skarce → scarce</i>
silke (1x)	<i>skarthe → scarth</i>
silver, n. Silver	<i>sko(urid)(wrid) → scour</i>
silver (4x)	<i>Skome → scum</i>
<i>Sinamound → cinnamon</i>	<i>skoorf → scurf</i>
sinew, n. A strong fibrous cord serving to connect a muscle with a bone or other part; a tendon	skin, n. The skin
Senows (2x), sinews (1x),	skin (2x), skyn (19x), skyne (15x), skyng (1x), skynnes (1x),
sinowes (6x), Synew (4x),	skyns (1x)
synewe (1x), synews (2x), synoue	
(1x), Synow (1x), synowes (4x),	
	skirret, n. A perennial umbelliferous plant, <i>Sium sisarum</i> , a species of water parsnip, formerly much cultivated in Europe for its esculent tubers; the root of this plant
	Skirwhite (1x)

sklender → slender	slipp (1x)
skl(yce)(yse) → slice	slippery , <i>a.</i> Slippery
slain , <i>a.</i> That has been slain; killed, slaughtered	slipperie (1x), slippery (1x)
slaine (1x)	
slake , <i>v.</i> To let or set loose; to set free, release	slit , <i>v.</i> To cut into, or cut open, by means of a sharp instrument or weapon
slekythe (1x)	Slitt (1x)
slape , <i>a.</i> Slippery; smooth	sluggish , <i>a.</i> Indisposed to action or exertion; inclined to be slow or slothful; not easily moved to activity
slape (1x)	sluggishe (2x)
slay , <i>v.</i> To smite, strike, or beat	Slyding → sliding
slaie (1x), slaye (1x), slaying (1x), slaythe (1x), Slea (1x), sleythe (1x)	slyse → slice
sleep , <i>n.</i> Sleep	small , <i>a.</i> Small
slepe (3x)	smal (1x), smale (1x), smaler (1x), smalest (1x), small (28x), smalle (3x), smow (2x), smowe (2x)
sleep , <i>v.</i> To sleep	small , <i>b.</i> Small
sleepe (1x), slepe (6x), slepethe (1x)	small (14x)
slekythe → slake	smallage , <i>n.</i> One or other of several varieties of celery or parsley
slender , <i>a.</i> Not stout or fleshy; slim, spare	smallage (4x), smallege (1x)
sklender (2x)	smarting , <i>n.</i> The fact or sensation of feeling a sharp pain, such as is caused by a wound, sore, burn
slice , <i>n.</i> A relatively thin, flat, broad piece cut from anything	smarting (1x)
sklyces (1x), sklyse (1x), slice (1x), slyce (3x)	smear , <i>v.</i> To anoint with oil, chrism, etc.
slice , <i>v.</i> To cut into slices	Smeare (1x), smere (1x)
sklyce (1x), slyse (1x)	smell , <i>v.</i> To smell
sliding , <i>n.</i> The action of sliding	smell (1x)
Slyding (1x)	smell , <i>n.</i> Smell
slip , <i>v.</i> To escape, get away, make off	

smell (2x)	smearing, rubbing, or washing with soap
smelling, n. The action of smelling	sowpinge (1x)
smelling (1x)	
smite, v. To strike with a weapon, etc., so as to inflict serious injury or death	
smite (1x), smithe (1x), smitten (3x), smytinge (1x)	
smoke, n. Smoke	
smooke (1x)	
smow(e) → small	
snail, n. A snail	
Snaills (2x), Snayles (1x), snaylles (1x)	
sneeze, v. To sneeze	
nese (1x), nesid (1x)	
sneezing, n. The action of the verb sneeze; a preparation or powder inducing sternutation	
nesing (2x), nesis (1x)	
so, b. So	
so (199x), soo (1x)	
soak, v. To soak	
souke (1x)	
soaking, a. Taking in moisture, absorbent	
sooking (1x)	
soap, n. A substance formed by the combination of certain oils and fats with alkaline bases, and used for washing or cleansing purposes	
soope (1x), sope (13x)	
soaping, n. The action or process of	
	smearing, rubbing, or washing with soap
	sowpinge (1x)
	soberly, b. Gravely, seriously, quietly
	soberlie (1x)
	socotrine, a. A drug prepared from the juice of <i>Aloe Socotrina</i> , originally obtained from the island of Socotra
	cicotryne (1x)
	sodden, v. To make sodden; to soak in, or saturate with, water
	sodden (9x), soden (6x), sodene (1x), sooden (1x)
	soft, a. Soft
	soft (11x), softe (12x)
	soften, v. To mitigate, assuage, or diminish; to render less painful or more easy to bear
	soften (2x)
	softly, b. Softly
	softelie (3x), softlie (1x), softly (1x), softlye (2x)
	softness, n. The state or quality of being soft
	softnes (1x)
	sold, v. To close or heal
	sowding (1x), sowed (1x)
	sole, n. The under surface of the foot
	soles (1x), sooles (1x)
	solsecle, n. The marigold
	solsequele (1x)
	soluble, a. Free from constipation or costiveness; relaxed

solible (1x), soluble (1x)	sorrel, <i>n.</i> One or other of certain small perennial plants belonging to the <i>genus Rumex</i> , characterised by a sour taste, and to some extent cultivated for culinary purposes
some, <i>a.</i> Some	
some (50x), somme (5x), Soome (9x)	sorell (5x), sorelll (1x), sorest (1x), sorrell (1x)
somer → summer	<i>sot(elie)(ell)(il)(ill)(lye)(telie)</i> → subtle
something, <i>n.</i> Some unspecified or indeterminate thing	sound, <i>v.</i> To sound
something (1x), somethink (1x)	sownd (1x)
sometimes, <i>b.</i> Sometimes	sour, <i>a.</i> Having a tart or acid taste
sometime (10x), sometimes (1x), sometyme (11x), somtime (4x), somtym (1x), Somtyme (8x)	sower (3x), sowre (3x), sowrer (1x), sowrest (1x)
somewhat, <i>b.</i> Somewhat	south, <i>a.</i> South
somewhat (14x), soomewhat (2x)	South (1x)
somewhile, <i>b.</i> At some time	sovereign, <i>a.</i> Standing out above others or excelling in some respect
somewhile (2x), somewhiles (7x), somwhile (1x), somwhiles (1x)	soueraign (1x)
sommer → summer	sow, <i>v.</i> To perform the action of scattering or depositing seed on or in the ground so that it may grow
son, <i>n.</i> A male child or person in relation to either or to both of his parents	sow (1x)
sonne (1x)	<i>sow(ding)</i> → sold
sonder → sunder	<i>sowple</i> → supple
soon, <i>b.</i> Soon	space, <i>n.</i> Lapse or extent of time between two definite points, events, etc.
sone (5x), soner (1x), sonne (6x), soone (2x)	space (44x), spaice (2x)
sore, <i>n.</i> A bodily injury; a wound	spain, <i>n.</i> Spain
soore (6x), sore (67x), sores (16x)	Spaine (1x), spayen (1x)
	span, <i>n.</i> The distance from the tip of the thumb to the tip of the little finger
	spane (2x)

speak , <i>v.</i> To speak	substances of vegetable origin
speakē (1×), spoken (1×)	spycses (1×)
speakē , <i>v.</i> To speak	spignel , <i>n.</i> The aromatic root of the umbelliferous plant <i>Meum athamanticum</i> , used, when dried and ground, in medicine as a carminative or stimulant, or as a spice in cookery
speakē (1×)	spycknell (1×), spyknell (1×)
special , <i>a.</i> Special	spikenard , <i>n.</i> An aromatic substance (employed in ancient times in the preparation of a costly ointment or oil)
Spetiall (1×)	spiknard (1×), Spinage (1×)
specially , <i>b.</i> In a special manner	spirit-wort , <i>n.</i> An essence, distilled extract, or alcoholic solution, of a specified substance
speciallie (3×), specially (1×),	Spertwoorte (1×)
speciallye (1×)	spit , <i>v.</i> To spit
speech , <i>n.</i> The act of speaking	spit (1×), spitt (1×)
speche (1×)	spittle , <i>n.</i> Saliva, spit
speechless , <i>a.</i> Lacking the faculty of speech	spittills (1×)
specheles (1×)	spleen , <i>n.</i> Splene
speed , <i>v.</i> To succeed or prosper	splen (2×), splent (1×)
sped (1×), spedē (1×)	splet , <i>v.</i> To spread, smear
speedily , <i>b.</i> In a speedy manner; quickly	splet (2×), splette (2×)
spedelye (1×)	sponge , <i>n.</i> The soft, light, porous, and easily compressible framework which remains after the living matter has been removed from various species of porifers
spelk , <i>v.</i> To fasten with a spelk	sponge (1×)
spelked (2×)	spongiosity , <i>n.</i> Spongy or porous nature
spelk , <i>n.</i> A surgical splint	spongiositie (1×)
spelkes (1×)	spoon , <i>n.</i> Spoon
spelt , <i>v.</i> To husk or pound (grain); to bruise or split	
spelt (7×), spelte (1×), speltid (1×)	
spelt , <i>n.</i> A species of grain (<i>Triticum spelta</i>) related to wheat	
spelts (2×)	
Spertwoorte → spirit-wort	
spice , <i>n.</i> One or other of various strongly flavoured or aromatic	

spone (2x)	which water may be squirted; a form of syringe
spoonful, n. A spoonful; As much as fills a spoon	squirt (2x), squirte (1x), squyrt (1x), sqwirt (1x)
sponefull (29x), sponefulls (1x), sponfull (1x), sponnefull (1x), spoonefull (1x), spoonefulls (1x), spoonfull (3x), spoonfulls (2x)	squirt, v. To eject or spirt out water in a jet or slight stream
spot, n. An eruptive or other disfiguring mark on the skin	squirtid (1x)
spotts (3x)	
spread, v. To spread	stable, n. A building fitted with stalls, loose-boxes, rack and manger and harness appliances, in which horses are kept
spread (1x), spreade (1x), spred (8x), spredd (2x), spredde (1x), sprede (25x), spredithe (2x), spreed (1x), spreede (1x)	stable (1x)
spring, v. To spread	staff, n. Staff
spring (1x), springe (3x), springethe (1x)	staff (1x)
<i>spronge</i> → prong	stain, v. To deprive of colour
spurge, n. One or other of several species of plants belonging to the extensive genus <i>Euphorbia</i> , many of which are characterized by an acrid milky juice possessing purgative or medicinal properties	stayne (1x)
spurge (1x)	stale, a. Freed from dregs or lees; hence, old and strong
<i>spyces</i> → spice	stail (1x), staile (2x), stale (5x), stall (1x)
squill, n. A bulb or root of the sea-onion or other related plant	stalk, n. The main stem of a herbaceous plant, bearing the flowers and leaves
Sqilles (1x), Sqwyltts (1x)	stalk (1x)
squirt, n. A small tubular instrument by	stamp, v. To bray in a mortar; to beat to a pulp or powder
	Stamp (34x), stampe (21x), stamped (1x), stampid (9x)
	stand, v. To stand; to rest; to lie
	stand (21x), stande (1x), standithe (1x)
	stark, v. To become stiff or rigid
	starke (1x)

start, *v.* To start

startithe (1x)

state, *n.* A combination of circumstances or attributes belonging for the time being to a person or thing state (1x)

staunch, *v.* To stop the flow of stanche (1x), staunche (3x), stawnche (1x), strange (1x)

stavesacre, *n.* A plant of the species *Delphinium Staphisagria*, native in southern Europe and Asia Minor
Stavesacre (2x)

stay, *v.* To support, sustain, hold up staie (1x), staing (1x), stey (1x), stode (1x), stoode (1x)

stead, *v.* To suffice for, serve the needs of
stea (1x)

steadfast, *a.* Fixed or secure in position stedfast (1x)

steep, *v.* To soak in water or other liquid stepe (1x), steped (1x), stepid (2x)

ster(e) → stir

sterrer → stirrer

stur(r) → stir

styrring → stir

stew, *n.* A vessel for boiling, a caldron stewe (1x)

stew, *v.* To boil slowly in a close vessel stew (1x)

stick, *v.* To stab, pierce, or transfix with a thrust of a spear, sword, knife, or other sharp instrument

stick (2x), stickithe (2x), stik (1x), styck (1x), stycke (1x)

stick, *n.* A rod or staff of wood

stick (10x), sticks (1x), stik (1x), stikk (1x), styck (2x)

stiff, *a.* Rigid; not flexible or pliant stiff (2x)

still, *v.* To cause to distil or fall in drops still (4x)

still, *b.* Still
still (7x)

stink, *n.* A foul, disgusting, or offensive smell

stinche (1x), stinke (2x)

stinking, *n.* The action of stinking
stinking (1x)

stir, *v.* To stir

stere (11x), stering (4x), stir (2x), stirr (3x), stirring (1x), stur (8x), Sturr (4x), stirring (2x), styrring (1x)

stirrer, *n.* An instrument or appliance for stirring a liquid or the like

sterrer (2x)

stitch, *v.* To prick, stab
stiche (1x), stiches (2x)

stitch, *n.* A thrust, stab
stiche (8x), styches (1x)

stomach, *n.* Stomach



stomack (1x), stomak (6x),
stomake (9x)

stone, *n.* A stone; a hard morbid concretion in the body, as in the kidney or urinary bladder, or in the gallbladder
stone (34x), stones (7x), stonne (1x), stoone (9x), stoones (1x)

stonecrop, *n.* The common name of *Sedum acre*, a herb with bright yellow flowers and small cylindrical fleshy sessile leaves

stonecrop (1x), stonehore (1x)

stool, *n.* The action of evacuating the bowels; an act of discharging faeces

stole (1x), stoole (1x), stooles (3x)

stop, *v.* To stop

stop (4x), stopp (2x), stoppe (2x), stopped (2x), stopping (2x), stoppinge (1x), stoppithe (1x), stopt (1x)

store, *v.* To furnish, supply, stock with something

store (1x)

straight, *a.* Not crooked; free from curvature

straight (1x), strait (2x), straite (10x), streight (2x)

strain, *v.* To bind tightly; to clasp, squeeze

strain (4x), straine (6x), strand (1x), strayn (2x), straynd (1x),

strayne (1x), straynid (1x), stream (1x), streane (4x), streamid (1x), strein (26x), streine (2x), streyn (9x), streynd (1x), streyne (1x), streynid (4x)

strainer, *n.* A utensil or device for straining, filtering, or sifting; a filter, sieve, screen, or the like
strener (1x)

strangle, *v.* To kill by external compression of the throat
strangled (1x)

strangury, *n.* A disease of the urinary organs characterized by slow and painful emission of urine

stranglion (1x), Strangurie (5x), Strangurye (2x)

strawberry, *n.* The fruit (popularly so called) of any species of the genus *Fragaria*, a soft bag-shaped receptacle, of a characteristic colour (scarlet to yellowish), full of juicy acid pulp, and dotted over with small yellow seed-like achenes

Strauburie (1x), strawberre (1x), Strawburies (1x)

strew, *v.* To scatter, spread loosely
strew (36x), strewe (7x), strewid (2x), strewing (3x)

strike, *v.* To strike
stricken (1x), strike (1x)

string, *v.* To fit (a bow) with its string;



to bend or prepare for use by slipping the loop of the bowstring into its notch
stringe (1x)

strip, *v.* To denude (a thing) of its covering

stripp (1x), stroped (1x)

strive, *v.* To be in a state of variance or mutual hostility

stryve (2x)

stroke, *n.* A bruise, wound, cut

Stroke (5x), strokes (1x)

strong, *a.* Strong

strong (6x), stronge (6x),
strongest (1x)

strongly, *b.* Strongly

stronglie (1x), stronglier (1x)

struggling, *n.* The action of struggling

strogolyn (1x)

styches → **stitch**

styck(e) → **stick**

sublimate, *n.* A solid product of sublimation

Sublimate (1x)

substance, *n.* A substance

substance (1x)

subtle, *a.* Of thin consistency, tenuous; not dense

sotelie (1x), Sotell (1x), sotellie (1x), sotil (1x), sotill (4x), sotlye (1x), sottelie (1x), sottell (2x), suttill (2x)

succory, *n.* The plant *Cichorium Intybus*,

with bright blue flowers, found wild in England

Succorie (1x)

suck, *v.* To extract or draw from or out of a thing

succid (1x)

sue, *v.* To follow

sued (1x)

suerlie → **surely**

suet, *n.* The solid fat round the loins and kidneys of certain animals, as that of the ox and sheep, which, chopped up, is used in cooking, and, when rendered down, forms tallow

sewit (1x)

suffer, *v.* To undergo, endure

suffer (27x), sufferid (2x), sufferithe (1x), suffred (1x)

suffice, *v.* To be enough, sufficient, or adequate for a purpose

sufficithe (1x), suffise (1x)

sufficiently, *b.* In a sufficient manner

sufficientlie (1x)

sugar, *n.* Sugar

sugar (2x), suger (12x), Sugerr (2x)

suing, *n.* Proportion

suing (1x)

sulphur, *n.* A greenish-yellow non-metallic substance, found abundantly in volcanic regions, and occurring free in nature as a brittle crystalline solid



Sulphur (3x)	(1x)
summer , <i>n.</i> Summer	surely , <i>b.</i> Surely
somer (8x), sommer (7x),	suerlie (3x), surelie (3x), surelye
summer (1x)	(1x)
sun , <i>n.</i> Sun	surgeon , <i>n.</i> One who practises the art of
sone (5x), sune (1x), sunne (1x)	healing by manual operation
sunder , <i>b.</i> Apart or separate from	surgeon (5x), Surgeons (1x),
another or from one another	surgians (1x), surgion (1x),
sonder (2x), sunder (7x)	surgions (1x)
sundry , <i>a.</i> Having an existence,	swallow , <i>v.</i> To swallow
position, or status apart	swallow (3x), swalow (2x),
sundrie (1x)	swallowed (1x)
superfluid , <i>n.</i> A fluid that exhibits	sweating , <i>n.</i> Emission of sweat from the
superfluidity	pores of the skin
superfluitie (3x), superfluity	Swytinge (1x)
(2x), Superfluitye (3x),	sweet , <i>a.</i> Sweet
superfluityes (1x)	sweat (8x), sweate (1x), swete
supperless , <i>a.</i> Without supper	(2x)
superlesse (1x)	swell , <i>v.</i> To make larger in bulk, increase
supple , <i>a.</i> Of soft or yielding	the size of, cause to expand; to enlarge
consistency; not rigid; soft, tender	morbidly
sowple (2x), supple (1x)	swell (2x), swollen (3x), swoolen
suppose , <i>v.</i> To hold as a belief or	(1x)
opinion; to believe as a fact	swelling , <i>n.</i> The process of becoming, or
suppose (1x)	condition of having become, larger in
suppository , <i>n.</i> A plug of conical or	bulk, as by internal pressure; distension,
cylindrical shape to be introduced into	dilatation, expansion
the rectum in order to stimulate the	swelling (10x), swellinge (6x),
bowels to action (or to reduce	swellings (1x)
hæmorrhoids), or into the vagina or	swine , <i>n.</i> Swine
urethra for various purposes	swine (2x), Swines (9x), Swins
suppositorie (1x), suppositors	(1x), swyne (3x), swynes (11x),

T

Swyns (1x)

swing, *v.* To beat up, whip (milk, eggs, etc.)

swing (1x), swonged (1x)

swol(l)en → **swell**

sword, *n.* A sword

Swerde (1x), Swoorde (1x),

sword (1x), sworde (3x)

swyn(e) → **swine**

syck → **sick**

syde → **side**

Synamo(n)(nd)(und) → **cinnamon**

Synew(e) → **sinew**

syno(ue)(w) → **sinew**

syphac, *n.* The peritoneum

cyphac (2x), cypres (1x)

syringe, *n.* A small cylindrical instrument, in its commonest form consisting of a tube fitted with a piston, but in some modern types of a tube with a rubber bulb attached, used to draw in a quantity of water or other liquid, and to eject it forcibly in a stream or jet for making injections, cleansing wounds, etc.

syring (1x)

syrup, *n.* A thick sweet liquid; one consisting of a concentrated solution of sugar in water (or other medium, e.g. the juices of fruits); A thick sweet liquid sirop (1x), sirope (1x), sirupp (2x), Syrup (2x)

table, *n.* A flat and comparatively thin piece of wood, stone, metal, or other solid material (usually shaped by art)

table (3x)

tail, *n.* Tail

tale (1x)

take, *v.* To take

Taik (113x), Taike (35x), Take (342x), taken (9x), taking (1x), tayk (1x), Tayke (4x)

talent, *n.* Inclination, propension, or disposition for anything; wish, desire, appetite

talent (1x)

tallow, *n.* Suet; the fat or adipose tissue of an animal

tallow (1x), talow (10x), talowe (2x)

tame, *a.* Domestic

tame (1x)

tanner ooze, *n.* The tree *Rhus Coriaria*, the dried and chopped leaves and shoots of which are used in tanning

Tannar owse (1x)

tansy, *n.* An erect herbaceous plant, *Tanacetum vulgare*

tamsey (1x), tansey (4x)

tap, *n.* A cylindrical stick, long peg, or stopper, for closing and opening a hole



bored in a vessel

tapp (1x)

tap-house, *n.* A house where beer drawn from the tap is sold in small quantities; an ale-house

taphouse (1x)

tap-staff, *n.* A staff used to stop the tap-hole of a mash-tub

tapstaff (1x)

tarde → **turd**

tarie(d) → **tary**

tart, *n.* Name for various dishes consisting of a crust of baked pastry enclosing different ingredients

tart (1x)

tartar, *n.* Present in grape juice, deposited in a crude form in the process of fermentation, and adhering to the sides of wine-casks in the form of a hard crust

tartar (2x), tartur (1x), tarture (1x)

tary, *v.* To weary, tire, fatigue

tarie (2x), taried (1x)

teasel, *n.* A plant of the genus *Dipsacus*, comprising herbs with prickly leaves and flower-heads

tasel (1x)

teat, *n.* The small protuberance at the tip of each breast or udder in female mammalia

tete (2x), tetes (2x)

tees(e) → **tissue**

temper, *v.* To bring (anything) to a proper or suitable condition, state, or quality, by mingling with something else

temp (1x), temper (15x), temperid (1x)

temperate, *a.* Tempered not excessive in degree moderate

temperate (2x)

temple, *n.* The flattened region on each side of the (human) forehead

temple (1x), temples (7x)

tender, *a.* Soft or delicate in texture or consistence

tender (7x), tenderine (1x)

tenderly, *b.* With delicacy or softness of touch, action, or treatment

tenderlie (2x)

tent, *n.* A roll or pledget, usually of soft absorbent material, often medicated, or sometimes of a medicinal substance, formerly much used to search and cleanse a wound, or to keep open or distend a wound, sore, or natural orifice tent (27x)

tent, *v.* To treat by means of a tent

tent (3x), tente (7x), tenting (1x), tentinge (2x)

tercel, *n.* The male of any kind of hawk tersells (1x)

terfoyle → **trefoil**

tertian, *a.* Of a fever or ague, characterised by the occurrence of a paroxysm every third (i.e. every alternate) day

tertian (3x)

tete → **teat**

tetter, *n.* A general term for any pustular herpetiform eruption of the skin, as eczema, herpes, impetigo, ringworm, etc
teter (1x), teters (1x), tetures (2x)

thank, *n.* Kindly thought or feeling entertained towards any one for favour or services received
thanks (1x)

then, *b.* Then
then (506x), thenn (3x), theyn (1x)

there, *b.* There
ther (72x), There (12x)

thereabout, *b.* Thereabout
theraboute (1x)

thereat, *b.* Thereat
therat (4x)

therefore, *b.* Therefore
therfor (1x), therfore (29x)

therefrom, *b.* Therefrom
therfro (5x)

therein, *b.* Therein
therein (1x), therin (48x)

thereof, *b.* Thereof
thereof (6x), therof (111x)

thereon, *b.* Thereon
theron (20x)

thereto, *b.* Thereto
thereto (1x), therto (94x)

thereupon, *b.* Thereupon
thervpon (17x), thervpone (1x)

therewith, *b.* Therewith
therwith (72x), therwithe (3x)

therof, *b.* Therof
therof (1x)

thick, *v.* To make dense in consistence
thick (1x)

thick, *a.* Thick
thic (1x), thick (16x), thicke (1x), thik (8x), thyck (2x)

thickness, *n.* The quality or condition of being thick
thicknes (1x)

thigh, *n.* Thigh
thighe (7x), thyes (1x)

thin, *a.* Thin
thik (3x), thyn (3x)

thing, *n.* Thing
thing (9x), thinge (7x), things (6x), things (11x), thynges (1x)

think, *v.* To think
think (1x), thinke (1x), thoughē (2x), thought (3x)

tho(o)(u)mbe → **thumb**

thondered → **thunder**

thone, *n.* Coalesced form of ‘the one’
thone (3x), thoone (1x)



thorn , <i>n.</i> A thorn	thunder; to sound with thunder
thorn (1x), thorne (2x)	thondered (1x)
thother , <i>a.</i> Coalesced form of ‘the other’	thus , <i>b.</i> In this manner
thother (8x)	thus (30x)
thread , <i>n.</i> A fine cord composed of the fibres or filaments of flax, cotton, wool, silk, etc.	<i>thyges</i> → thigh
threde (12x), thredes (1x)	<i>thyn</i> → thin
thrice , <i>b.</i> Three times	<i>thyng</i> → thing
thries (1x), thrise (2x), troies (1x), tryes (1x)	tie , <i>v.</i> To bind, fasten
<i>thriste</i> → thrust	tie (2x)
throat , <i>n.</i> Throat	tilestone , <i>n.</i> A brick or tile
Throte (2x)	tile stone (1x), tyell stone (1x), tyle stone (3x)
throat boll , <i>n.</i> The protuberance in the front of the throat; the Adam’s apple	till , <i>b.</i> Until
throte bole (1x)	till (12x), tyll (1x)
throw , <i>v.</i> To trow	time , <i>n.</i> Time
throw (1x)	time (4x), times (5x), tyme (45x), tymes (30x)
thrust , <i>v.</i> To thrust	tissue , <i>n.</i> The substance, structure, or texture of which an animal or plant body, or any part or organ of it, is composed
thriste (1x), thrust (13x), thrusten (2x), thurst (2x), thursten (2x), trus (1x), trust (2x)	tees (1x), teese (1x)
thrust , <i>n.</i> The action of thrusting	toast , <i>n.</i> A slice or piece of bread browned at the fire
thrust (1x)	tooste (1x)
thrusting , <i>n.</i> the action of thrusting	toe , <i>n.</i> Toe
trushing (1x)	toes (2x)
thumb , <i>n.</i> Thumb	together , <i>b.</i> Together
thombe (4x), thoombé (1x), thoumbes (1x), thumbe (1x)	to gether (11x), to gethet (1x), together (175x)
thunder , <i>v.</i> To cause or give forth	token , <i>n.</i> Something that serves to indicate a fact, event, object, feeling, etc.

token (1x), tokens (8x)	trete (3x)
tongue, n. Tongue	tree, n. Tree
tonge (2x), tonges (1x), tounge (1x), tounge (2x), towng (1x)	tre (10x), tree (4x), trees (3x)
toorde → turd	trefoil, n. A plant of the genus <i>Trifolium</i> , having triple or trifoliate leaves; a clover
tooth, n. Tooth	terfoyle (1x), tryfyll (1x)
teeth (1x), teithe (2x), tethe (1x), tieth (1x), toothe (9x), tothe (9x)	trencher, n. A cutting or slicing instrument; a knife
top, n. The highest or uppermost part	trencher (2x)
top (2x), topp (4x), toppe (1x), topps (1x)	trew → true
Totie → tutty	trindle, n. Something of rounded form, as a pellet of sheep's or goat's dung
touch, v. To touch	trindles (1x), tryddles (1x)
touche (5x), touching (1x), touchinge (1x), towche (1x), towching (1x), towchinge (1x)	troies → thrice
tough, a. Tough	trouble, v. To disturb, agitate, ruffle
tougue (2x)	trooblethe (1x)
towel, n. Towel	trow(e) → true
towell (8x)	true, a. True
tr(i)acle → triacle	trew (2x), trow (1x), trowe (1x)
travail, n. Bodily or mental labour or toil, especially of a painful or oppressive nature	trus(t) → thrust
travell (1x)	truth, n. Truth
treacle, n. A medicinal compound	truthe (2x)
tracle (1x), treacle (1x), triacle (5x), triakle (3x)	tryddles → trindle
treat, n. Management in the application of remedies; medical or surgical application or service	tryes → thrice
	tryfyll → tryfoil
	turbith, n. A cathartic drug prepared from the root of East Indian jalap, <i>Ipomoea Turpethum</i> , an Indian and Australian plant
	Turbith (1x)
	turd, n. A lump or piece of excrement

tarde (1x), toorde (1x), turde (1x)

U

turn, v. To turn

turne (4x), turning (1x),
turnithe (1x)

turbentyne → **turpentine**

turnsole, *n.* A violet-blue or purple colouring matter, obtained from the plant *Crozophora tinctoria*

turnsall (6x)

turpentine, *n.* A term applied originally to the semifluid resin of the terebinth tree, *Pistacia Terebinthus*

turbentyne (1x), turpentine (3x),
turpentyn (11x)

tutty, *n.* A nosegay, a posy; a tuft or bunch of flowers

Totie (1x), tutia (1x)

twice, *b.* Two (successive) times; on two occasions

twies (4x), twise (19x)

twin, *v.* To put asunder

twynid (1x)

twin, *a.* Consisting of two; twofold, double

Twyne (1x)

ty(ell)(le) stone → **tilestone**

tyll → **till**

tyme(s) → **time**

unbroken, *a.* Not broken or infringed
vnbroken (1x)

unconfirmed, *a.* Not supported or established by further evidence
vnconfirmid (1x)

understand, *v.* To comprehend
Vnderstand (1x)

undertake, *v.* To take by craft, to entrap; to overtake
vndertake (1x)

undo, *v.* To undo
Vndo (13x)

uneath, *b.* Not easily
vnethe (1x)

ungle, *n.* A claw, nail, or hoof
vngle (2x)

unguent, *n.* An ointment or salve

unguentum viride (1x), vnguent
viride (1x), vnguentum (21x),
vnguentum allum (1x),
vnguentum ruptorium (7x),
vnguentum viride (15x),
vnguentum viridem (1x),
vnguentum viride (1x)

unhealed, *a.* Not healed
vnhealid (1x)

unmoveble → **immovable**

unnatural, *a.* Not natural; contrary to nature



inaturall (2x)	
unquenched , <i>a.</i> Unslaked	upward , <i>b.</i> To or towards a higher position or plane
vnquenched (1x), vnquenshid (4x), vnquenshyd (1x)	vpward (5x), vpwarde (2x)
unquest , <i>a.</i> Not crashed	urine , <i>n.</i> The excrementitious fluid secreted from the blood by the kidneys in man and the higher animals, stored in the bladder, and voided at intervals through the urethra
vnquist (1x)	vrine (1x), vryne (2x)
unquietness , <i>n.</i> A source of trouble or disquiet	use , <i>v.</i> To use
vnquietnes (1x)	vse (44x), vse, (1x), vsed (2x), vsid (2x), vsinge (1x)
unremoved , <i>a.</i> Not removed or done away with	utter , <i>a.</i> That is farther out than another (implied or distinguished as inner); forming the exterior part or outlying portion
vnremovid (1x)	vtter (4x)
unset , <i>a.</i> Not planted	uttermost , <i>a.</i> Outermost; farthest out or off; remotest
vnset (4x), vnsett (2x)	vttermost (1x)
unsewed , <i>a.</i> Not sewed	
vnsewid (2x)	
unslackened , <i>a.</i> Unslackened, unrelaxed	
vnslecked (1x), vnslekid (2x), vnslekyd (1x)	
unspell , <i>v.</i> To undo or dissolve	
vnspelt (1x)	
upper , <i>a.</i> Situated in, located on, a higher or loftier position, high ground, etc.	
vpper (3x)	
uppermost , <i>a.</i> In or to the highest, upmost, or most elevated position or place	
vppermost (2x), vppermoste (1x)	
upright , <i>a.</i> Erect on the feet or end; in or into a vertical position	
vpright (1x)	

V

vain(e) → vein

valerian, *n.* One or other of the various species of herbaceous plants belonging to the widely-distributed genus *Valeriana*, many of which have been used medicinally as stimulants or antispasmodics

valerian (2x), valeriane (1x)

vehement, *n.* Intense, severe

Vehement (1×)

vein, *n.* Vein

vain (1×), vaine (1×), veine (2×),
veines (3×), veins (2×), venies
(2×), veyn (1×)

velvet, *n.* A textile fabric of silk having
a short, dense, and smooth piled surface

velvet (1×)

venice, *n.* Venice

venece (1×)

venom, *v.* Covered, charged, imbued,
impregnated, or smeared with venom

venemid (1×)

venomous, *a.* Morally or spiritually
hurtful or injurious; pernicious

venemous (1×), venimous (1×)

vent, *n.* The action of emitting or
discharging

vent (1×)

verdigris, *n.* A green or greenish blue
substance obtained artificially by the
action of dilute acetic acid on thin plates
of copper

vertgreace (3×), vertgrece (3×)

verges → **verjuice**

verily, *b.* In truth or verity; as a matter
of truth or fact

verilie (2×)

verjuice, *n.* The acid juice of green or
unripe grapes, crab-apples, or other sour
fruit, expressed and formed into a liquor

verges (1×)

vermilion, *n.* Cinnabar or red crystalline
mercuric sulphide

vermilyon (3×), vermylion (1×)

vertew → **virtue**

vertgre(a)ce → **verdigris**

virtue → **virtue**

vervain, *n.* The common European and
British herbaceous plant, *Verbena
officinalis*

vervain (2×), vervine (2×), vervyn
(1×), vervyne (2×)

very, *b.* Very

vere (11×), veri (1×), verie (23×),
Very (5×), verye (1×)

vessel, *n.* Any article designed to serve
as a receptacle for a liquid or other
substance

Vessell (20×), vessels (3×)

vexing, *n.* The action of vexing

vexinge (1×)

vial, *n.* A vessel of a small or moderate
size used for holding liquids

viol (2×), violl (3×)

vice, *n.* A fault, defect, blemish or
imperfection

vice (1×)

vine, *n.* The trailing or climbing plant,
Vitis vini-fera, bearing the grapes from
which ordinary wine is made

vine (1×)

vinegar, *n.* Vinegar, a liquid produced by



the acetous fermentation of wine and some other alcoholic liquors

vinager (4x), vinagre (1x), vineger (11x), vinegre (1x), vinigar (1x), viniger (16x)

viol → *vial*

violently, *b.* By means of physical strength or violence

violentlie (1x)

violet, *n.* A plant or flower of the genus *Viola* (*V. odorata*), the sweet-smelling violet, growing wild, and cultivated in gardens

violet (9x), violetts (1x)

violl → *vial*

virgin wax, *n.* Fresh, new, or unused bees-wax, sometimes that produced by the first swarm of bees

virgin wax (2x)

virtue, *n.* Virtue

vertew (3x), vertue (2x)

visage, *n.* The face, the front part of the head, of a person

visag (1x), visage (11x)

vitriol, *n.* One or other of various native or artificial sulphates of metals used in the arts or medicinally

vitrioll (1x)

vn(n)c(e) → *ounce*

vncurable → *incurable*

vnguce → *ounce*

voice, *n.* Sound, or the whole body of

sounds, made or produced by the vocal organs of man

voice (1x)

void, *a.* Containing no matter; empty, unfilled

void (1x), voide (1x)

vomit, *v.* To bring up and eject the contents of the stomach by the mouth

vomitt (2x)

vomit, *n.* The vomit, throw up

vomit (1x), vomite (1x), Vomitt (3x)

vomiting, *n.* The act of ejecting the contents of the stomach through the mouth

vometing (1x)

W

wag, *v.* To be in motion or activity; to stir, move

wagge (1x)

waie → *way*

waist, *n.* The waist

waist (2x)

wake, *v.* To wake

wakid (1x)

walk, *v.* To walk

walk (3x), walke (1x), walked (1x)

wall, *n.* A wall



wall (1x), walls (1x)	warm (2x), warme (5x)
wallwort , <i>n.</i> The caprifoliaceous plant <i>Sambucus Ebulus</i> , also called Dwarf Elder, Ground Elder, Danewort, Danes' Blood, and Daneweed	warm , <i>a.</i> Having a fairly high temperature
walwort (1x)	warm (5x), Warme (41x)
walnut , <i>n.</i> The nut of the common walnut-tree, <i>Juglans regia</i> , consisting of a two-lobed seed	warranty , <i>n.</i> Warranty
wall nutt (1x), wallnot (1x), wallnut (1x), walnet (1x), walnus (1x), walnut (2x), walnutt (1x)	warrantise (3x)
wamble , <i>n.</i> A rolling or uneasiness in the stomach; a feeling of nausea	wash , <i>v.</i> To cleanse, remove the dirt
wunble (2x)	washe (14x), washed (1x), washid (6x), wasshed (1x), wesh (3x), weshe (28x), weshid (2x), weshing (2x), wesshed (2x), wesshen (1x)
wan , <i>n.</i> A dark or livid mark produced by a blow; a bruise	waste , <i>v.</i> To consume, use up, wear away, exhaust
Wann (1x), Wannes (1x), Wannie (1x)	waisted (1x), waistid (8x), wasted (1x), wastid (2x)
want , <i>n.</i> Deficiency, shortage, lack of something desirable or necessary	watch , <i>v.</i> To remain awake with a sick person for the purpose of rendering help or comfort
want (3x), wante (1x)	watche (2x)
ware , <i>a.</i> Cognizant, informed, conscious	water , <i>n.</i> Water
ware (1x)	water (141x), waters (3x), watter (8x)
ware , <i>n.</i> Pus, matter; Seaweed	water , <i>v.</i> To furnish with a supply of water
ware (2x), wores (1x)	waterithe (1x)
warely , <i>b.</i> Watchfully, cautiously, circumspectly	water-cress , <i>n.</i> The hardy perennial, <i>Nasturtium officinale</i> , found in abundance near springs and in small running streams, and now widely cultivated for use as a salad
warely (1x)	water cresses (2x)
wark , <i>n.</i> A pain, an ache	
wark (6x), warke (1x)	
warm , <i>v.</i> To make warm	

watering, *a.* Of eyes: Discharging watery fluid

watering (1x), Wateringe (1x)

wax, *n.* Wax

wax (23x), waxe (30x)

wax, *v.* To grow, increase

waxed (1x), waxen (1x), waxid (1x), waxing (1x), waxith (2x), waxithe (3x)

way, *n.* Way; Road, path: manner

waie (2x), way (4x)

way → **whey**

waybread, *n.* A plant of the *genus Plantago*, as the Greater Plantain (*P. major*), a low herb with broad flat leaves spread out close to the ground, and close spikes of inconspicuous flowers, followed by dense cylindrical spikes of seeds

waybryde (1x), waybrye (1x), weybrode (1x)

weapon, *n.* An instrument of any kind used in warfare or in combat to attack and overcome an enemy

weapon (2x), weapone (2x), wepon (1x)

weasand, *n.* The oesophagus or gullet

wesand (1x)

weat → **wet**

web, *n.* A thin white film or opacity growing over the eye

webb (5x), Webbe (1x)

weed, *n.* A herbaceous plant not valued for use or beauty, growing wild and rank, and regarded as cumbering the ground or hindering the growth of superior vegetation

wedes (1x)

week, *n.* Week

weke (2x), wekes (2x)

weight, *n.* Measurement of quantity by means of weighing

weight (11x), weights (1x)

well, *b.* Well

wel (7x), well (145x), welle (1x)

wen, *n.* A lump or protuberance on the body, a knot, bunch, wart

wen (2x), wenn (1x), wenne (1x), wennes (2x), wens (1x)

went → **go**

wesand → **weasand**

we(s)sh(e) → **wash**

wet, *v.* To make (an object) humid or moist by the application of water or other liquid

weat (6x), weatid (1x), weete (2x), wete (8x), weted (1x), wetid (1x), weting (1x)

wet, *a.* Wet

weat (5x), wet (6x), wett (6x)

weybrode → **waybread**

whan → **when**

what, *a.* What

what (5x)



wheal, *n.* A pimple, pustule

wheales (1x)

wheare → **where**

wheat, *n.* The cereal plant (closely related to barley and rye) which yields this grain

wheat (15x), wheate (5x), whet (1x), whete (1x)

whelp, *n.* The young of the dog

whelp (6x)

when, *b.* When

whan (2x), when (154x), whenn (1x)

wherat, *b.* Wherat

wherat (1x)

where, *b.* Where

wheare (1x), wher (9x), where (23x), whre (1x)

whereby, *b.* By, beside

wherbie (2x), wherby (1x)

wherefor, *b.* Wherfor

wherfor (1x), wherfore (12x)

whereof, *b.* Whereof

whero (1x)

whereon, *b.* Whereon

wheron (1x)

wherethrough, *b.* Through which

wherthrough (3x)

wherin, *b.* Wherin

wherin (4x)

whey, *n.* The serum or watery part of milk which remains after the separation

of the curd by coagulation

way (3x), whey (2x)

whie → **why**

while, *n.* A portion of time, considered with respect to its duration

while (5x)

while, *b.* While

while (3x), whiles (5x), whilst (1x), whilles (1x)

whirl-bone, *n.* The round head of a bone turning in the socket of another bone

whirlbone (1x), whirl bone (3x), whirlbone (1x)

white, *a.* White

whit (1x), white (51x), whyte (1x), whytes (1x)

white, *v.* To make white

white (1x)

white, *n.* The translucent viscous fluid surrounding the yolk of an egg

white (38x), whyte (1x)

whiteness, *n.* The quality or condition of being white

whitnes (1x)

whole, *a.* In good condition, sound; whole

who (1x), whole (5x), whoole (1x)

why, *b.* Why

whie (1x)

whyte → **white**



wide, *a.* Wide

wide (2x), wyde (4x)

wild, *a.* Living in a state of nature; not tame, not domesticated

wild (3x), wilde (3x), wyld (2x),
wylde (4x)

will, *v.* As a modal auxiliary: will

wil (11x), will (127x), wilt (7x),
wold (2x), woold (2x), would
(8x), woulde (1x), wyll (2x)

will, *n.* Desire, wish, longing; liking

will (1x)

wimble, *n.* A gimlet

winble (2x), wymble (1x)

wind, *n.* Air or gas in any part of the body

winde (4x), wynd (1x), wynde
(3x)

wind, *v.* To put into a curved or twisted form or state; to bend

gwynde (1x)

wine, *n.* The fermented juice of the grape used as a beverage; wine

wine (16x), wyn (1x), wyne (45x)

wine-measure, *n.* The standard of liquid measure used for wine

wine mesour (1x)

winter, *n.* Winter

winter (11x), wynter (5x)

wise, *n.* Manner, mode, fashion, style; The stalk or stem of a plant

wise (14x), wises (1x)

wise, *a.* Having or exercising sound judgement or discernment

wise (1x), wisest (1x)

wisely, *b.* In a wise manner

wisely (1x)

wisp, *n.* A wisp

wispe (1x)

wit, *n.* The faculty of thinking and reasoning in general; mental capacity, understanding

wit (1x), witt (3x), wytt (1x)

withal, *b.* Along with the rest

withall (1x)

withdraw, *v.* To cause to decline, decrease, or disappear

withdraw (2x)

woman, *n.* An adult female human being

woman (7x), womans (3x),
wombe (1x), women (2x),
wooman (1x), woomans (3x),
woomonnes (1x)

womb, *n.* The abdomen

wombe (6x)

wonder, *b.* Wondrously, marvellously, surprisingly; exceedingly, very

wonder (4x), wounder (2x),
wunder (1x)

wonderful, *a.* Full of wonder; such as to excite wonder or astonishment; Full of wonder

wonderfull (1x), wondeurfull



(1x), wunderfull (4x)	woorm (2x), woorme (3x),
wonderfully , <i>b.</i> In a wonderful manner	woormes (5x), worme (1x),
wonderfulie (1x), wonderfully	wormes (1x)
(1x), woonderfullie (1x)	
wood , <i>n.</i> Wood	wormwood , <i>n.</i> The plant <i>Artemisia Absinthium</i> , proverbial for its bitter taste
wood (3x), woode (2x)	woormewood (4x),
woodbind , <i>n.</i> A name for various plants	woormewoode (1x),
of a climbing habit	woormwood (1x), woormwoode (1x), wormewood (4x),
woodbind (1x), woodbynde (4x)	wormewoode (2x), wormwood (2x)
woodbyne (1x), woodebynd (1x)	
wool , <i>n.</i> The fine soft curly hair forming	
the fleecy coat of the domesticated	
sheep	
woole (4x)	
woolen , <i>a.</i> Made of or manufactured	
from wool	
woollen (1x)	wort , <i>n.</i> A plant, herb, or vegetable,
word , <i>n.</i> Speech, utterance, verbal	used for food or medicine
expression	woort (4x), woorte (4x), woorts (1x), wort (1x)
woordes (2x), words (1x)	wound , <i>v.</i> To inflict a wound or wounds
<i>wores</i> → ware	wounded (4x), woundid (8x),
work , <i>v.</i> To work	wounding (1x), woundinge (2x)
woork (1x), woorke (7x),	wound , <i>n.</i> A wound
woorketh (1x), woorking (1x),	woonde (1x), wound (70x),
woorkinge (1x), woorkithe (1x),	wounde (57x), woundes (26x),
work (1x), worketh (1x)	wounds (17x)
worm , <i>n.</i> A member of the <i>genus Lumbricus</i> ; a slender, creeping, naked, limbless animal, usually brown or reddish; any endoparasitic helminth breeding in the living body of men and other animals	wreath , <i>n.</i> Something resembling or comparable to a twisted or circular band wrethes (1x)
	wrench , <i>n.</i> A sudden or sharp twist or jerk causing pain or injury to a limb, person, etc.
	wrinche (1x)
	<i>wrest</i> → wrist
	wring , <i>v.</i> To press, squeeze, or twist so as to drain or make dry

wring (5x), wringe (2x), wrought (2x)	yarrow, <i>n.</i> The common name of the herb <i>Achillea Millefolium</i> , also called milfoil and nose-bleed
wrist, <i>n.</i> Wrist	yarow (1x)
wrest (2x), wrist (1x)	ydle → idle
write, <i>v.</i> To write	year, <i>n.</i> Year
written (4x)	year (4x), yeare (2x), yeares (1x), years (5x), yere (2x), yeres (2x), yers (1x)
write, <i>n.</i> The action of writing	yeard(e) → yard
writing (1x)	yek(e) → itch
wrought → wring	yelde → yield
wunble → wamble	yellow, <i>a.</i> Yellow
wunder → wonder	yalew (1x), yealowe (1x), yelew (1x), yellow (1x), yellow (3x)
wyde → wide	yellowness, <i>n.</i> The quality or state of being yellow
wyld(e) → wild	yealownes (1x)
wyll → will	yerd → yard
wymble → wimble	yet, <i>b.</i> Yet; although
wyn(e) → wine	yet (9x)
wynd(e) → wind	yield, <i>v.</i> To give forth from its own substance by a natural process
wynter → winter	yelde (2x), yeldithe (1x)
wytt → wit	ylnes → illness

X

xicorie → **chicory**

Y

yard, *n.* A unit of linear measure equal to 16 feet or 5 yards (but varying locally); The virile member, penis
yardē (8x), yeard (2x), yearde (1x), yerd (2x)

yield, *v.* To give forth from its own substance by a natural process

yelde (2x), yeldithe (1x)

ylnes → **illness**

ymb(er)(re) → **ember**

ynche(s) → **inch**

ynke → **ink**

ynoughe → **enough**

yokethe → **itch**

yolk, *n.* The yellow internal part of an egg, surrounded by the white or



albumen

yolk (8×), yolke (7×), yolkes (3×),
yolks (1×)

young, a. Young

yong (1×), young (3×), younge
(1×)

ynyons → onion

yron(e) → iron

ysop(e)(p) → hyssop

ytche → itch

yv(i)e → ivy





CHAPTER 4

THE COMPILATION OF HISTORICAL CORPORA

A corpus is a remarkable thing, not so much because it is a collection of language text, but because of the properties that it acquires if it is well-designed and carefully-constructed (Sinclair 2005: 1)

The present chapter focuses on corpus linguistics as a branch of linguistics. Thus, the term ‘corpus’ is defined and the corpus linguistics methodology is described.⁸⁷ After that, the contribution of corpora to historical linguistics is evaluated and the main issues in the compilation of corpora for historical linguistics are analysed. Finally, the chapter offers a detailed description of the process by which H135 has been processed and turned into a normalised and POS-tagged early Modern English corpus, which will ultimately become part of *The Málaga Corpus of Early Modern English Scientific Prose*.

4.1. Corpus linguistics

Corpus linguistics is the study of language “based on examples of ‘real life’ language use” (McEnery and Wilson 1996: 1).⁸⁸ These examples of real life language are contained in corpora, which are collections of texts with which

⁸⁷ Even though field work on corpora has been carried out in many countries and languages, the present chapter is exclusively concerned with English corpus linguistics.

⁸⁸ According to Johansson, the label corpus linguistics was first “found in the title of a collection of papers from the ‘Conference on the Use of Computer Corpora in English Language Research’, an early ICAME conference held in Nijmegen in 1983: *Corpus Linguistics: Recent Developments in the Use of Computer Corpora in English Language Research* (2008: 34). In the present dissertation, the term is employed to refer to any linguistic research based on corpus, both before and after this date.



linguistic analysis can be performed (Meyer 2002: xi; Meyer 2008: 1).⁸⁹ Thus, many different studies can be carried out under the umbrella of corpus linguistics, and they certainly share some goals and characteristics (Biber, Conrad and Reppen 1998: 4):

1. They are empirical, analysing the actual patterns of use in natural texts.
2. They are based on the analysis of a large and principled collection of natural texts, known as a ‘corpus’, which is evaluated for the extent to which it represents a target domain or language.
3. They make extensive use of computers for analysis, employing both automatic and interactive techniques.
4. They depend on both quantitative and qualitative analytical techniques.

Given this, corpus linguistics not only embodies the transition from the linguist’s mental image of what language may be to its actual realization, but also a transversal methodology that can be applied to different fields within linguistics, i.e. lexicography, morphology, sociolinguistics or historical linguistics, to name but a few (Leech 1992: 105). In addition, the rise of corpus linguistics constitutes a shift of focus, from competence to performance, where the quantitative aspects become very significant when analysing any aspect of language (Tognini-Bonelli 2010: 14–15). This shift of focus is even noticeable not only in the discipline of

⁸⁹ Francis defined the linguistic corpus as “a collection of texts assumed to be representative of a given language, dialect or other subset of a language, to be used for linguistic analysis” (1982: 7). Under the umbrella term corpora, Kennedy makes a subdivision: 1) pre-electronic corpora, a collection of texts that had to be manually analysed, e.g. the 18th-century King James version of the Bible by Alexander Cruden; and 2) electronic corpora, the product of the computer revolution, with the Brown Corpus as the first attempt in the 1960s (1998: 13–19; see also Meyer 2008: 1).

linguistics as a whole, but also in the career path of linguists, as Sinclair pointed out

I have no longer any confidence in the ability of a human being to invent sentences which display the same patterns of meaning that are to be found in naturally occurring sentences. This has not always been my position; thirty or more years ago I published an English grammar which illustrated its points with almost entirely made-up sentences. I would not do that today. What is more, I believe that most linguists share my misgivings, and it is easy to find subjective evidence in support of this position (2002: 41).

Corpus linguistics originated out of the need of linguists for pieces of real language that allowed them to draw conclusions on the features and variation in the use of English. According to Leech, early biblical and literary scholars provided the background for the work to be done and it was structuralists who became the “forerunners of corpora not only in the sense of data gathering but in terms of the commitment to putting real language data at the core of what linguistics study” (1992: 105). Corpus linguistics is nowadays associated with concordance software of web-based corpora in which the linguist is to make searches in order to retrieve linguistic information. Nevertheless, the beginnings of this branch of linguistics were not this simple, as the ground-breakers in the field created small corpora if compared to the time they had to spend in the compilation process.⁹⁰

⁹⁰ In this vein, Leech highlighted the obvious advantages of computer corpora over pre-computational corpora as “the computer’s ability to search, retrieve, sort and calculate the contents of vast corpora of text [...] gives us the ability to *comprehend*, and to *account for*, the contents of such corpora in a way which was not dreamed of in the pre-computational era of corpus linguistics” (1992: 106).



A distinction must be made between pre-electronic corpora and electronic corpora.⁹¹ While the former “consisted of a text or texts that served as the basis of a particular project, and had to be analysed through often time-consuming and tedious manual analysis”; the latter are “a consequence of the computer revolution, beginning with the first computer corpora in the 1960s, such as the Brown Corpus (Francis and Kučera 1964) and continuing to the present time” (Meyer 2008: 1; see also Johansson 2008). When it comes to electronic corpora, its development and distribution could be sketched in three stages or generations (Tognini-Bonelli and Sinclair 2006: 208; see also Tognini-Bonelli 2001):

1. 1960-1980: learning how to build and maintain corpora of up to a million words; no material available in electronic form, so everything had to be manually transcribed.
2. 1980-2000:
 1. 1980s: the decade of the scanner, where even with the early scanners a target of twenty million words becomes realistic.
 2. 1990s: texts become available in electronic format and this allows for the compilation of bigger corpora.
3. 2000s: large amounts of text start to be produced directly in electronic format on the internet, wherefrom they can be exported and turned into a research corpus.

In spite of their many applications in linguistic research, corpus linguistics became at first unpopular and was neglected. In this context, the first attempts to build

⁹¹ McEnery and Wilson argue that, “while not identifying themselves with the term corpus linguistics, field linguists [...] and later linguists of the structuralist tradition all used a basic methodology that we can undoubtedly call corpus-based” (1996: 2–3; see also Francis 1992).

corpora for corpus linguistics were particularly significant not only because they constituted the first machine-readable corpora, but also because they were compiled “in the face of massive indifference if not outright hostility from those who espoused the conventional wisdom of the new and increasingly dominant paradigm in US linguistics led by Noam Chomsky” (Kennedy 1998: 23). Within this first-generation corpora, three of them deserve special mention: *The Brown Corpus*, *the Lancaster-Oslo-Bergen Corpus (LOB)* and *The Survey of Spoken English* and *the London-Lund Corpus* (Johansson 2008: 35–40).

After this first computer-based attempt, technology improved and computers became more powerful, cheaper and user-friendly, contributing to a higher number of resources available and scholars using them (Johansson 2008: 33; see also McCarthy and O’Keeffe 2010: 5; Rayson 2015: 32). Interestingly enough, the influence of the computer in corpus linguistics allowed for the quantification of language, which “led to scientifically interesting generalizations and [...] helped renew or strengthen links between linguistic description and various applications” (Kennedy 1998: 5). In the course of the 1970s and the 1980s, the quantity of corpora grew considerably and, more importantly, these new corpora were much larger.⁹² In addition, these corpora not only grew in quantity and extension, but in diversity. Thus, corpus linguists started to compile corpora of special text types, different varieties of English, child language or historical texts (see below), among others (Johansson 2008: 40).

In terms of form and structure, Lüdeling and Kytö argue that, although a simple collection of texts, a corpus may be thought of in terms of different aspects, such as “machine-readable form, sampling and representativeness, finite size, and

⁹² By the end of the 1970s, Bergenholz and Schaeder (1979: 325–329) listed 3 English and 14 German from 200,000 and 5 million words. Ten years later, in their survey of electronic corpora, Taylor, Leech and Fligelstone (1991: 319–354) listed 36 corpora, including the Birmingham Corpus with c. 20 million words (Johansson 2008: 40).



the idea that a corpus constitutes a standard reference for the language variety it represents” (2008: v; Curzan and Palmer 2006: 18).

One of the biggest concerns among the users of corpora is the representativeness of those corpora with regard to the variety they represent, that is, the reliability of the linguistic findings. Davies (2011: 66) argues that “no corpus is a 100% mirror of what we encounter in real life” and puts as an example the compilation of a corpus of popular magazines:

There are many different factors that we could or should consider in creating a corpus of, for instance, popular magazines: sub-genre of the magazine (sports, religion, finance, parenting, etc.), specific subject matter of the article, the author’s gender, age and place of origin, the target audience, the year of publication, and so on. And each of these can be subdivided in turn. For example, with sub-genre of ‘sports magazines’, we can have topics like football, basketball, and golf. And within basketball, we can have a focus on individual players, teams, strategy, etc. This can go on ad infinitum. And we can always come back to the relationship of the corpus to the ‘real world’. Do more people read articles on basketball than golf, or are there more articles published on individual players than on strategy? (2011: 66-77).

This excerpt exemplifies many of the problems that corpus compilers face when they have to decide what to include and what not to include in a particular corpus. In the case of popular magazines, the first issue would be ‘genre’: how many genres should be included? Why? After that, sub-genres have to be considered and, again, the compilers will have to decide which of them to include.

There are, nevertheless, some techniques which help bridge these shortcomings. First of all, the corpus compiler must know that the corpus will be a sample of a language variety and, therefore, the limits of the variety which will be studied must be stated, i.e. a determined period of time, a particular genre or register, etc. After that, the source texts must be selected (taken from a particular



library, periodicals, etc.). The last factor to be taken into account is the length of the samples. Re-taking Davies' example, for the corpus of popular magazines to be representative of that variety, all genres and sub-genres must have roughly the same word-length,⁹³ writers must be balanced (in terms of age, gender, region, social class, etc.), the samples belonging to each diachronic period (if any) must be in equilibrium, etc. In doing this, the corpus compiler will be able to draw reliable conclusions that will not depend on the composition of the corpus but will be representative of the variety under study.

4.2. Corpus linguistics and historical linguistics

Historical linguistics is the branch of linguistics that focuses on language change throughout time. According to Campbell, advances in the field may serve two main purposes. On the one hand, knowing how language has changed over time might help better understand how that particular language works. On the other, “historical linguistics findings may be helpful to solve historical issues which are far beyond linguistics” (2004: 1). In order to achieve this, historical corpus linguistics makes use of historical corpora, which are corpora especially designed to represent a particular stage in the history of English so that linguistic change can be assessed (Claridge 2008: 242).⁹⁴

Within all the branches in linguistics, historical linguistics has always been concerned with the use of old written sources and, as a consequence, the new methodology based on corpora did not dramatically change the way in which historical linguists had been working (Johansson 1995: 22). Thus, what did

⁹³ Biber (1993: 243–246) argued that small samples are adequate for the study of frequent items in a particular language. Less common features, however, require larger samples so that they are properly represented in the corpus.

⁹⁴ In this vein, Claridge argues that “a historical corpus concerns periods before the present-day language, which may be taken to end roughly thirty to forty years (one generation) before the present: in other words, any corpus compiled in or around 2000 that goes back beyond ca. 1960/1970 can be called historical (Claridge 2008: 242).



change was the number of available sources and, more importantly, the quality and diversity of those sources, which no doubt enhanced the potential of historical linguistics as: 1) computer-based historical corpora offer the linguist large amounts of data as well as tools for dealing with it (word-counts, frequencies, statistics, etc.); 2) statistical analyses contribute to a better understanding of the way in which linguistic change takes place, either supporting or refuting previous linguistic theories; 3) historical linguistics has adopted more functional approaches, which assess how language structure is affected by language use; and 4) less canonical texts have been made available in corpus format so that genres or text types that had not been paid the attention they deserve can now be used as sources of evidence for linguistic analyses (Curzan 2008: 1091).

While in the past linguists approached variation simply stating how a particular form was and how it evolved, the corpus linguist is now able to calculate the frequencies of each competing form in order to determine, for example, whether or not historical fluctuation has taken place (Rissanen 2008; see also Facchinetto and Rissanen 2006: 7).⁹⁵ These two approaches, namely qualitative and quantitative, respectively, should not be considered incompatible as, even though they constitute different perspectives on corpus data, they can perfectly complement each other for the sake of a better analysis of a particular linguistic feature. The relationship between these two approaches must be, therefore, symbiotic, as any given quantitative study should have qualitative foundations and, at the same time, the information by way of numbers provided by a quantitative analysis will no doubt enrich such study (Hilpert and Gries 2016: 40).

⁹⁵ According to Rissanen (2008: 58), “in the past, descriptions of change in language were often based on information derived from dictionaries and historical grammars and described by the simple formula A>B, [which] does not, however, tell the whole truth about the real-time or apparent-time change of linguistic features within a large community.”

If qualitative and quantitative approaches are applied to historical linguistics, the former would be suitable for analysing a linguistic feature in a particular historical period, whereas the latter would allow the historical linguist to extrapolate those data and compare them to another historical period. In this way, historical linguistics would not only address the analysis and description of linguistic phenomena but also it would assess the patterns of evolution that those phenomena have had throughout history.

Among the corpora specifically designed for diachronic research, the *Helsinki Corpus* was the first attempt. It was compiled at the University of Helsinki between 1984 and 1991 and it consists of 400 samples of continuous text from Old English to Early Modern English amounting up to 1.5 million words (Kytö 1991; Kytö and Rissanen 1992):

The main aim of the Corpus is to serve as a database for the study of the development of English morphology, syntax and vocabulary. The texts were selected in the spirit of sociohistorical variation analysis: they should give extensive evidence of varied types, modes and levels of linguistic expression. An attempt has been made to take the samples from good editions and to reproduce their spelling as accurately as possible. The extracts vary from 2,500 to some 20,000 words of continuous text; shorter texts are included *in toto*. No grammatical tagging can be offered at present, but parameter codings introducing each text give information on the author, type of text and discourse situation. (Kytö and Rissanen 1992: 7).

After this first attempt, other corpora came out accomplishing different purposes in linguistic research. Thus, for instance, *ARCHER (A Representative Corpus of Historical English Registers)* enlarged the covered period from the mid-seventeenth century to the 1990s; *CEEC (Corpus of Early English Correspondence)* is useful for sociolinguistic research in late Middle English and early Modern English,



providing the informants' gender, age and social background;⁹⁶ *MEMT (Middle English Medical Texts)* and *EMEMT (Early Modern English Medical Texts)* are valuable for the study of genre variation within medical writing in those periods;⁹⁷ the *ZEN (Zurich English Newspaper Corpus)* offers evidence for newspaper language in the period 1671–1791; the *Lampeter Corpus* provides seventeenth- and eighteenth-century argumentative texts, etc. (Rissanen 2008: 59–60).⁹⁸

More recently, a second generation of corpora has appeared in corpus linguistics. This second generation is characterised by a massive compilation of written texts belonging to different periods in the history of English. Some of these projects deserve special mention: the *Hansard Corpus* (1.6 billion words) containing the speeches in the British Parliament in the period 1803–2005; the *Early English Books Online* (ca. 400 million words) that offers electronic editions of early printed books in the period 1470s–1690s; the *Corpus of Historical American English* (ca. 400 million words) which provides texts belonging to different genres within American English in the period 1810s–2000s; and the *Old*

⁹⁶ According to Curzan (2008: 1098), “the further back in time one goes, the less evidence has survived [...] and the CEEC is so valuable because it compiles many of the available correspondence documents, beginning near the end of the Middle English period through the nineteenth century.”

⁹⁷ Even though these two corpora constituted a ground-breaking resource for the study of early English Medical writing, *The Málaga Corpus of Early English Medical Writing* has been working for the last ten years in order to provide linguists with a Middle and an early Modern English corpus of scientific writing composed of newly edited manuscripts which, in addition, allow for lemma- and POS-based searches.

⁹⁸ In addition to the abovementioned corpora, dictionary projects have also benefited from the development of corpus linguistics, i.e. *The Dictionary of Old English Corpus* and *The Middle English Compendium* (Rissanen 2008: 60).



Bailey Corpus (ca. 14 million words), composed of the proceedings of the Old Bailey, London's criminal court, published between 1674 and 1913.⁹⁹

4.3. The compilation of historical corpora

The compilation of a corpus is a process that may be divided into two different stages: 1) transcription, scanning or sampling from online sources; and 2) annotation, by which the corpus texts are equipped with documentation that identify textual and linguistic characteristics (this may be accomplished by means of both manual and automatic methods) (Rayson 2015: 33).¹⁰⁰ This first stage, however, could be divided in three subsequent phases, namely the design of the corpus (in terms of genre, text type, etc.), the obtention of the material and the transcription of the texts, which can be carried out manually or automatically (OCR).¹⁰¹

In the present section, I am concerned with the methodology behind the compilation of historical corpora. For the purpose, Section 4.3.1. analyses their restrictions; Section 4.3.2. assesses the processing of historical texts; Section 4.3.3. comments on the annotation procedure; and finally, Section 4.3.4 explains the process by means of which the edition of H135 became part of *The Málaga Corpus of Early Modern English Scientific Prose*.

4.3.1. Restrictions of historical corpora

Given the nature of the material necessary for the compilation of historical corpora, they present a series of added difficulties that have traditionally influenced the length of these corpora until recent times. In this vein, Claridge

⁹⁹ See Davies (2015) for a detailed analysis on the pros and cons of working with large corpora as opposed to smaller corpora.

¹⁰⁰ Kennedy (1998: 70) distinguishes three phases in the creation of a corpus: corpus design, text collection or capture and text encoding or mark-up. Adolphs (2008: 21), in turn, lists three slightly different stages: data collection, annotation and mark-up.

¹⁰¹ Optical Character Recognition.



(2008: 245) outlined four reasons for such a length restriction:

1. The manual process of compilation.
2. The availability of suitable material not only in a particular historical period but also in any specific genre or register.
3. The accessibility of material.
4. Copyright.

Regarding the manual process of compilation of historical corpora, the worst scenario derives from the manuscript sources, which have to be manually transcribed. Easier (and less time-consuming) options are the choice of (early) printed versions of the texts that will compose the corpus (see Section 3.3.2.). Davies (2011: 68) points out that the main complication when compiling a historical corpus was the scarcity (or no existence at all; or no available source) of particular genres at determined points in the history of a language. This is the case of medical writing throughout the history of English, where the written sources are scarce in Old and early Middle English and they are prolific from late Middle English onwards. In addition to this, different subgenres in medical writing are not evenly distributed in the different periods of the history of English, a fact that casts doubt on the representativeness of those sources in a particular historical period.

The accessibility of the material can also be a problem in the compilation process. Thus, while (early) printed editions are easy to work with, the processing of manuscripts is more complicated, as corpus compilers will have to move to the libraries in which these manuscripts are housed. This not only affects the initial budget but also the time schedule for the completion of the corpus. In addition, if (early) printed editions are used they may be copyrighted and the subsequent corpus distribution can be problematic (see Section 3.3.2.).

Compiling a spoken historical corpus is not an easy enterprise, and this



has precisely been another difficulty for historical corpus linguists, who have tried to bridge this gap by compiling speech-related corpora, i.e. drama, legal proceedings or even private letters.¹⁰² This procedure is based on the fact that even though every single source comes to us through written records, some of them were created to be spoken (i.e. drama) or were transcribed speech (i.e. legal proceedings). In this vein, Hundt argues that “some text types (for example personal letters, depositions from criminal investigations, drama or fictional dialogue) are conceptually closer to the spoken end of the text-speech cline” (2008: 169).

In sociolinguistic grounds, corpus linguistics also presents some drawbacks, as it is almost impossible to reconstruct the societies of the past. Moreover, the high levels of illiteracy and the male-dominated societal structure makes it difficult to get a whole picture of all speakers using, for instance, Middle English.¹⁰³ Particularly interesting is the role of women as the leaders of linguistic change as they rarely received language instruction, thus producing forms that are closer to everyday language (Claridge 2008: 249). This is very much connected to the large amount of anonymous texts throughout the history of English, which obviously shortens the potentiality of those sources, as no social background can

¹⁰² The use of letters is appropriate because “they are as close to speech as non-fictional historical texts can possibly be and therefore cast light on the history of natural language” (Elspass 2012: 156). Additionally, Conde-Silvestre and Calle-Martín point out that the use of private letters is of vital importance for sociolinguistic analyses, as they “allow the reconstruction of psychobiographical information about their authors and addressees and this favours a reproduction of the sociolinguistic variables that can be connected with linguistic production: age, gender, education, etc.” (2015: 62). However, it must be noted that sometimes it is difficult to know if these letters were written by the real author or a professional secretary/scribe.

¹⁰³ In the *Corpus of Early English Correspondence* (CEEC), the letters were written by 677 known informants, of which only a fifth were women (Nurmí 1998).



be accessed.¹⁰⁴

4.3.2. Processing historical texts

The process of creating a historical corpus is not a simple one, and the linguist may have to make some decisions that will certainly have an impact on the final product: a sample corpus that is representative of the population to which it belongs. The first decision must be, therefore, what to edit, and thus the linguist stands in front of three different pathways: 1) to edit manuscripts of a pre-print culture; 2) to edit manuscripts in a print culture; and 3) to edit early printed texts or editions (Claridge 2008: 250).¹⁰⁵

The third one obviously has some technical advantages. Consequently, already-printed editions are easily available, the editing work has already been done, and they may be automatically scanned (by means of OCR and the subsequent manual post-edition) or manually transcribed (at least easier than a manuscript). Another advantage is their good state of preservation as opposed to the state of many manuscripts. Additionally, they may also present some disadvantages. On the one hand, they are often carried out by historians instead of linguists, the former being mainly interested in the contents while the latter would also take the form into account.¹⁰⁶ On the other, the decisions made during the edition process may not be well documented and elements such as spelling

¹⁰⁴ In such case, style or rhetorical features, among other, could certainly help determine the social background of the writer.

¹⁰⁵ Claridge proposes a distinction between originals and modern editions and, in the former case, with the challenges presented by the form of early texts (2008: 250).

¹⁰⁶ It would not be fair to criticise historical editors for not having documented their decisions during the editing process or for the lack of faithfulness with the original manuscript, as their intention was never to provide a source for linguistic research but for the historical aspects of the text. Yet, these editions could still be used by linguists if they are aware of their limitations, i.e. the differences that they may present if compared with the original (for a discussion on this, see Kytö and Walker 2003: 241).



variation could have been omitted. Finally, these editions may be copyrighted and the distribution of the resultant corpus could be problematic (Claridge 2008: 250).

From a purely linguistic viewpoint, however, the preferred option would be to work with original manuscripts. Consequently, it would be linguists who would be editing the manuscripts and, in this way, every single decision made in relation to the editorial process would be duly documented. Working with manuscripts of course supposes some problems. First, manuscripts are scattered around the world and, in order to get access to them, more funding is needed if compared to working with an electronic edition at home.¹⁰⁷ Second, it may not be a viable option for large-scale corpus projects, as the transcription of manuscripts is a time-consuming task.¹⁰⁸ In order to avoid this shortcoming, Kytö and Walker proposed that “when an early print is readily available and the copy of reasonable quality, this is the best text format for corpus compilers to use [...] but compilers should make the corpus users aware of the inherent ‘dangers’ in the corpus texts” (2003: 241).¹⁰⁹

¹⁰⁷ This limitation was solved by CLEFT (*Cambio Lingüístico y Edición Filológica de Textos*) research team when compiling the *Málaga Corpus of Early English Scientific Prose*. In order to save resources and time, the team decided to have the manuscripts photographed by the archivists working in the libraries and, afterwards, the team transcribed the texts with those high-resolution images (see Section 4.3.4. for an account of the research project).

¹⁰⁸ See for instance, the approach taken by the *Early English Books Online* (EEBO), where three stages have been designed: 1) texts are manually transcribed by two different linguists; 2) both versions are compared; and 3) a third editor prepares the final version that is based on the two previous ones (Rayson 2015: 37).

¹⁰⁹ Kytö and Walker also recommend that even though an early printed edition is selected for the corpus, the corpus user should be informed of the existence of available manuscript versions (if any) against which the edition can be checked (2003: 241).



4.3.3. Corpus annotation

After corpus compilation, the next task would be data annotation. The nature of corpus annotation is the addition of information to the corpus so as to provide it with relevant information for linguistic research. This information is known as markup and it constitutes “all the information in a document other than the ‘contents’ of the document itself, viewed as a stream of characters” (Sperberg-McQueen 1991: 35).

Annotation enhances the potentialities of the corpus, where three different layers could be distinguished: ‘structural’ markup,¹¹⁰ ‘part-of-speech’ markup and ‘grammatical’ markup (Meyer 2004: 82).¹¹¹ Rayson, in turn, distinguishes among morphological, lexical, syntactic, semantic, pragmatic, stylistic or discoursal annotation (2015: 38). This additional information will improve the uses of the corpus providing the user with information that is not physically in the text, but that is directly related to it, i.e. date of composition, background of the informants, structure of the text, part-of-speech tags, etc.

When it comes to the kind of information that may be attached to a particular text, Claridge identifies two main branches: (i) on the text: title, publication format, register, text type/genre, content (library keyword style), style (formal/informal), medium (written/spoken), language use (prose/verse; dialect;

¹¹⁰ In relation to the different nature of structural markups, Burnard (1995) noted three different types of tagsets: ‘core tagsets’ (associated with file headers or paragraph divisions, available for insertion in any document); ‘base tagsets’ (associated with particular kinds of texts, i.e. verse, drama, etc.); and ‘additional tagsets’.

¹¹¹ Reppen distinguishes two kinds of mark-up: document mark-up and annotations. The former refers to markings such as HTML codes that indicate the structure (paragraphs, sentences, etc.) and format (fonts, etc.) of the text (2010: 35). The latter cover a wider range of options, where part-of-speech (POS) tags stand out as the most frequent. In this vein, Claridge understands annotation as “the provision of text headers, textual markup for capturing layout and other surface properties, and grammatical annotation” (2008: 252).



foreign languages, etc.), date(s) (if composition and copy diverge), original/edition used for the corpus; and (ii) on the author: age, gender, social rank/class, parentage, education, profession(s), residence, dialect, type of author-recipient relationship (if interactive) (2008: 253).

Sinclair makes a distinction between ‘markup’ and ‘annotation’. While the former “is the process of recording these additional pieces of information by making notes interspersed in the alphanumeric string” (i.e. bold script, layout of the text), the latter may use the same conventions as ‘markup’ but it “encodes information which is not directly recoverable from the original text, but is added by a researcher” (2002: 48).¹¹²

Markup, therefore, allows for the reconstruction of the text as it was originally, a characteristic that becomes especially important not only for describing the features of any given text but also to represent features related to speech (i.e. overlapping speech).¹¹³ In the particular case of historical corpora, markup helps indicate features such as abbreviations, layout of the text or insertions, among others. In order to exemplify how relevant this can be in the compilation of historical corpora, (1) provides an image of H135 (f. 97r); (2) represents its semi-diplomatic transcription; (3) shows a transcription with no markup; and (4) offers the text with its corresponding markup.

As observed, (2) represents the original witness in all aspects, namely the division of paragraphs and lines, the script format (title of recipes in bold script), abbreviations (expanded in italics) and marginalia. In (3), in turn, the corpus user does not have access to anything but the text, while the layout, among other

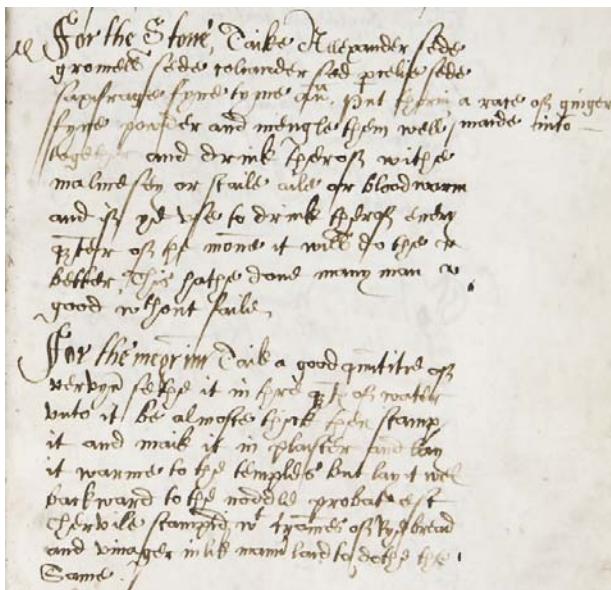
¹¹² Sinclair, however, maintains that each information in a corpus other than the plain text should be optional as 1) most researches require just that; and 2) most researches will use just a portion of the available annotation data (2002: 50).

¹¹³ In this vein, Sperberg-McQueen and Burnard (1994) argue that this markup is purely descriptive insofar as it just provides tags to categorise different parts within a document.



things, is lost. Finally, (4) represents an annotated version of the text, in which all the information represented in (2) is included. The main difference between (2) and (4) is that the information (by means of italics and text layout) in (2) is lost in case the text is processed with a software, be it a tagger, parser, etc., whereas the information in (4) does not disappear as it is not marked by way of format, but it is part of the text.¹¹⁴ This becomes especially important when working with historical corpora, as manuscripts have a surface appearance that is often difficult to accommodate to the corpus version of those texts (compare (1) with (3)).

(1)



(2) **For the Stone**, Taike Allexander sede
gromell sede coliander sed percelie sede
saxifrage fyne tyme an^a. put therin a race of ginger

¹¹⁴ This is achieved by adding tags to the text. These tags appear between angular brackets and have a beginning (<i>) and an end (</i>). Additionally, some tags can be embedded into others, i.e. text in italics within a line. The tags used in (4) are <p> for marking the paragraphs, <l> for the lines, <extMarg> for marginalia in the external margin, for bold script, <i> for italics and <supScr> for superscript letters.

fyne powder and mengle them well maide into
 together and drink therof withe
 malmesey or staile aile or bloodwarm
 and if ye vse to drink therof euery
 quarter of the monne it will do the
 better, This hathe done many man
 good wi^tout failie

For the megrim Taik a good quantitie of
 vervyn sethe it in thre quarts of water
 vnto it be almoste thick then stamp
 it and maik it in plaister and lay
 it warme to the temples but lay it wel
 backward to the noddle probat est
 chervile stampid with crammes of Rye bread
 and vinager in lik manner laid to dothe the
 same./

- (3) For the Stone, Taike Allexander sede gromell sede coliander sed percelie sede saxifrage fyne tyme ana. put therin a race of ginger maide into fyne powder and mengle them well together and drink therof with malmesey or staile aile or bloodwarm and if ye vse to drink therof every quarter of the monne it will do the better, This hathe done many man good without failie For the megrim Taik a good quantitie of vervyn sethe it in thre quarts of water vnto it be almoste thick then stamp it and maik it in plaister and lay it warme to the temples but lay it wel backward to the noddle probat est chervile stampid with crammes of Rye bread and vinager in lik manner laid to dothe the same./
- (4) <manuscript>MS Hunter 135</manuscript>
 <library>Glasgow, Glasgow University Library</library>
 <collection>Hunterian Collection</collection>
 <date>mid-15th century</date>



<author>unknown</author>

<genre>medical recipes</genre>

<text>

<p>

<l>For the Stone Taike Allexander sede</l>

<l>gromell sede coliander sed p<i>er>/i>celie sede</l>

<l>saxifrage fyne tyme an<i>a>/i>. put therin</l>

<extMarg>a race of ginger maide into</extMarg> <l>fyne

powder and mangle them well</l> <l>together and drink

therof with</l> <l>malmesey or staile aile or

bloodwarm</l> <l>and if ye vse to drink therof euery</l>

<l>q<i>ar</i>ter of the mo<i>n</i>ne it will do the</l>

<l>better, This hathe done many man</l> <l>good

w<i>i</i><supScr>t</supScr>hout failie,</l>

</p>

<p>

<l>For the megrim Taik a good quantitie of </l>

<l>vervyn sethe it in thre q<i>uar>/i>ts of water </l>

<l>vnvo it be almoste thick then stamp</l> <l>it and

maik it in plaister and lay</l> <l>it warme to the temples

but lay it wel</l> <l>backward to the noddle probat

est</l> <l>chervile stampid w<i>i</i>th cra<i>m</i>mes

of Rye bread</l> <l>and vinager in lik mann<i>er</i> laid

to dothe the</l> <l>same./</l>

</p>

</text>

In order to provide corpus material with this kind of relevant information, a standard system has been implemented that allows for the processing of texts without the need of a particular software. This system is known as Standard Generalized Markup Language (SGML), and its innovative character lies in the fact that it is not a limited system, but a “metalanguage that provides a mechanism



for describing the structure of electronic documents” (Meyer 2004: 82).¹¹⁵ The first major attempt to this was the Text Encoding Initiative (TEI), a “consortium of institutions and projects concerned with the development and maintenance of the TEI standard that is available as a set of guidelines with corresponding document grammars” (Lehmberg and Wörner 2008: 486).¹¹⁶ Sperberg-McQueen defined Text Encoding Initiative as

a set of tags defined in the manner prescribed by the Standard Generalized Markup Language (SGML). SGML is defined by an international standard and thus has the intrinsic advantage of public accessibility over alternative proprietary systems. SGML is designed to ensure that tag sets defined as it specifies will be independent of peculiarities of individual computer systems and can with some work be made usable for a wide variety of different applications. The TEI is using SGML because it provides a better basis than any other now available for the creation of portable, reusable, system-independent, application-independent electronic texts (1991: 35).

SGML was developed by Goldfarb and it satisfies, following Vanhoutte, “seven requirements for an encoding standard” (2004: 10):

1. Comprehensiveness.
2. Simplicity.
3. Documents be processable by software of moderate complexity.
4. Standard not dependent on any particular characteristic set or text-entry devise.

¹¹⁵ No markup language with a finite vocabulary can be complete for a) there is no finite set of textual features worth marking; b) there is no finite set of texts to be tagged; and c) there is no finite set of uses to which texts may be put (Sperberg-McQueen 1991: 36).

¹¹⁶ According to Lehmberg and Wörner, the formation of the TEI was a result of the Association for Computers and the Humanities’ Vassar Conference in 1987 (2008: 486).



5. Standard not geared to any particular analytic program or printing system.
6. Standard describing text in editable form.
7. Standard allowing the interchange of encoded texts across communication networks.

A new markup system has emerged recently: XML. It is a restricted version of SGML and its main advantage is “its ability to be used on web pages” (Meyer 2004: 84). This new system is nowadays extensively used by researchers as the web is becoming the medium of corpora, certainly facilitating their distribution.

The implications are, therefore, that this standard was to provide scholars with a metalanguage that not only would allow for the description of the text they were working with, but also for the freedom to enlarge this language whenever they needed. Besides, this metalanguage could be differently shaped according to the needs of a particular scholar. Thus, if I am editing a sixteenth-century scientific manuscript, I may be interested in a set of features that would be of little of no interest for a scholar who is transcribing Present-day English text messages. More importantly, the most striking characteristic of this standard lies in the fact that it has no limit since each scholar may add the elements that he/she considers relevant, all of which will be easily understood by the rest of the community.

4.3.4. *The Málaga Corpus of Early Modern English Scientific Prose*

The *Málaga Corpus of Early Modern English Scientific Prose*¹¹⁷ is a research project based at the University of Málaga, in collaboration with the Universities of Murcia, Jaen, Oviedo, Glasgow, Oslo and Adam Mickiewicz. The project’s *raison d’être* could be defined in terms of a twofold objective: 1) the semi-diplomatic

¹¹⁷ This research project is funded by the Spanish Ministry of Science and Innovation (grant number FFI2014-57963-P) and by the Autonomous Government of Andalusia (grant number P11-HUM7597). It can be accessed at <<http://modernmss.uma.es>>.

transcription of hitherto unedited early Modern English scientific manuscripts and the design of electronic editions in which the transcription appears together with the high-resolution images of the witness; and 2) the compilation of a normalised and POS-tagged corpus for linguistic research.

Regarding the composition of the corpus, the research team pursues the compilation of a representative corpus of the main branches of medical writing in early English with a total of 1,000,000 words, i.e. theoretical treatises, surgical treatises and remedies (see Section 1.3.). For the purpose, the following manuscripts, on which the research team is already working, have been selected for the project so far:

Glasgow University Library (Hunter Collection):

- MS Hunter 43 (Medical recipes; The Secrets and Experiments of Mathewe Lucatelye).
- MS Hunter 64 (Medical recipes).
- MS Hunter 92 (Treatise on the Anatomy of the Eye).
- MS Hunter 95 (Medical recipes).
- MS Hunter 135 (Treatise on Surgery; medical recipes).
- MS Hunter 303 (Jean Liébault's Treatise on the Diseases of Women).
- MS Hunter 487 (Medical recipes)

University of Manchester (Rylands Collection):

- MS Rylands 1310 (Medical recipes).

Wellcome Library (London):

- MS Wellcome 373 (Jane Jackson's medical recipes).
- MS Wellcome 762 (Medical recipes).
- MS Wellcome 6812 (Medical recipes).

Table 4.1. Manuscripts in The Málaga Corpus of Early English Scientific Prose (2017)

The object of study in the present PhD dissertation, H135, is one of the manuscripts included in the corpus and this section accounts for the procedure by which the edition of the manuscript was first normalised and then POS-tagged in order to become an original resource for linguistic research.

4.3.4.1. Spelling normalisation (VARD)

It has been said above that one of the main shortcomings in the compilation of historical corpora is spelling variation. As stated in chapter 2, the palaeographic analysis has demonstrated that H135 is likely to have been written during the first half of the sixteenth century. In terms of spelling, texts from the late sixteenth century become more familiar to Present-day English speakers due to the standardisation of punctuation and the emergence of the ‘one word one spelling’ principle. Additionally, this evolution took place first in the public domain, private writing being more reluctant to the standardisation (Lass 1999: 10).

The amount of spelling variation within Early Modern English text is due to many different factors, such as adding and removing letters for the justification of lines and the influence of local dialect, but mainly because there were no standard spelling rules and no notion of the importance of a single spelling to represent each word, with individual scribes, authors, editors and printing houses having their own spelling preferences (Vallins and Scragg, 1965: 63).

Linguists often find that most linguistic tools treat the different orthographic variants of a word as separate lemmas (e.g. *runing*, *runinge*, *running*, *runninge*, etc.) and this leads to non-accurate descriptions of language.¹¹⁸ Being aware of this,

¹¹⁸ According to Rayson et al. (2007: 2; see also Baron and Rayson 2008), “this means that any automated tagging program will fail utterly, as such programs rely [...] on matching words against lexicons. Even regularised editions of Early Modern English texts present potential problems for analysis, such as morphological variants (e.g. ‘tellest’, ‘telleth’), grammatical variants (e.g. ‘ye’, ‘thou’, ‘thine’), orthographic oddities (e.g. ‘wing’d’ instead of ‘winged’, the lack of apostrophe for the s-genitive, capitalisation practices), and archaic/obsolete forms (e.g. ‘becalmed’).” As a

linguists have to manually amend the errors made by the tool, which can be either relatively easy for studies in small corpora or just exhausting in corpora containing some million words. A potential solution would be the standardisation of the early Modern English material so that the modern linguistic tools deal with Present-day English, where minimal spelling variants are found. This would have an impact on the usage of the corpus in two different ways. On the one hand, the problem of spelling variation would be solved and contemporary linguistic tools would be perfectly suitable for diachronic linguistic research. On the other, the original spelling variation would be lost and no trace of the evolution of the English language would be present in the available corpora. Consequently, the applications of the corpus would be narrowed down to just certain features of linguistics (syntax or discourse, for instance), while others would be neglected (spelling variation). In order to provide a solution for this shortcoming, researchers of the Computing Department at the University of Lancaster developed a variant detector (VARD)¹¹⁹, a software that

does not merely offer the user possible ‘suggestions’ for spelling variants (as is the case of MS-Word and Aspell),¹²⁰ but *automatically* regularises variants within a text to their modernised forms so that historical corpora become

consequence of this, “techniques such as *frequency profiles*, *concordancing*, *annotation*, and *collocation extraction* will not perform well with multiple variants of each word type in a corpus” (Pilz et al. 2008: 67).

¹¹⁹ VARD was the result of the PhD dissertation by Alistair Baron (2011), University of Lancaster.

¹²⁰ If MS-Word and Aspell are compared, they correctly modernise from one third to half of variants depending on the text type. However, VARD modernises between 23.2% and 45.2% when MS-Word fails, and MS-Word modernises between 2.9% and 8.3% when VARD fails. The same situation is found when comparing VARD to Aspell, where the former normalises between 16.7% and 33.3% when the latter fails, and the latter normalises between 5.4% and 5.6% when the former fails (Rayson, Archer and Smith 2005: 8-11). Both comparisons prove VARD to be more effective than the other two tools, a fact which is perfectly acceptable as it is designed to process historical texts using historical variant lists.



more amenable to further annotation and analysis (Rayson, Archer and Smith 2005: 2).¹²¹

The reasons behind such a normalisation of spelling lie in the fact that, after the process, annotation softwares designed for Present-day English, such as *Constituent Likelihood Automatic Word-tagging System* (CLAWS), would need little or no adaptation to their use with diachronic corpora. The intervention policy followed by the research team has been the following (Rayson, Archer and Smith 2005: 3–4):

1. Normalise all known variants to their modernised British English equivalents.
2. Post-process morphological variants that can be used legitimately in specialist/dialectal registers.
3. Normalise hyphenated words such as *out-side* and multi-word expressions such as *pallace-yard* that are no longer hyphenated in standard modern English.
4. Normalise ‘open’ lexical units (reflexive pronouns, compound adverbs, etc.) to their hyphenated/closed modern equivalent (*it self* → *itself*, *in deed* → *indeed*, etc.).

For the purpose, the research team manually designed a list of historical variants based on newspapers dating from 1653 to 1654. Additionally, the *OED* and other historical sources were employed to verify and extend this list of variants, which were classified as morphological, orthographic, phonological, fuzzy and problematic. Thus, VARD allows for the manual or automatic normalisation of text(s) and, in order to achieve this, it makes use of two components.

¹²¹ VARD is good for many reasons that will be explained in the present section, but perhaps its best feature is that it is able to normalise early Modern English Spelling while keeping the original form as part of a tag.



The first component offers a set of possible modern spellings for each of the variants in a particular text, which are replaced with an SGML ‘reg’ tag. Interestingly enough, VARD does not correct the spelling, but provides a Present-day English counterpart for every variant within the text, this variant preserved as part of the tag. To achieve this, VARD uses the abovementioned list of variants,¹²² the SoundEx algorithm and letter replacement heuristics. These letter replacements include rules such as replacing final *ck* with *c*, *u* with *v*, *v* with *u*, etc. (Baron and Rayson 2009: 5).¹²³

These possible normalisations are later ranked depending on which methods were used to find them, as well as the Levenshtein distance between the variant and the replacement (Rayson, Archer and Smith 2005: 4; Rayson et al. 2007: 5; Pilz et al. 2008: 67).¹²⁴ Once the software has identified the likely modern equivalents of a variant, a confidence score is calculated by summing the weights with each of the methods employed, and a percentage for each candidate is offered to the user together with the weights for each of the methods used to provide the

¹²² Baron and Rayson argue that this is an extensive and manually created list of variants, allowing for the processing of substantial spelling variation. However, “due to the extensive variety in spelling variant forms it is impossible to include all possible spelling variants in a pre-defined list, and the list was generated solely to deal with EModE spelling variation, the tool would therefore not be of use when dealing with the spelling variation found in other varieties of English” (2008: 6).

¹²³ DICER (Discovery and Investigation of Character Edit Rules) was designed as a complementary tool to VARD. This tool “can process a list of variant and equivalent mappings to compute a set of letter replacement rules for each mapping which can transform the variant from onto its equivalent” (Baron and Rayson 2009: 5).

¹²⁴ The SoundEx algorithm “compresses every English word, no matter how long, into one letter and three digits. The first character of the code is the first letter of the word, and the digits are numbers that indicate the next three consonants in the word” (Orwant, Hietaniemi and Macdonald 1999: 388; Pinto et al. 2012: 49). The Levenshtein Distance “between two strings of not necessarily equal length is the minimum number of character changes, insertions, and deletions required to transform one string into the other” (Aho 1990: 294).



candidates, i.e. known variants (KV), letter rules (LR), phonetic matching (PM) and edit distance (ED) (Baron and Rayson 2008: 8).¹²⁵ Figure 4.1 shows the interface after clicking on a variant.

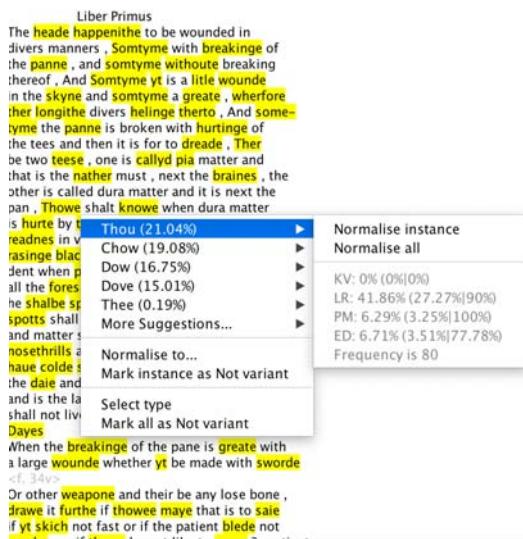


Fig. 4.1. Presentation of candidates in VARD

The second component makes use of context rules in order to deal with *real-word* errors, that is, words that do not suit in their contexts, but match another correctly spelled word (e.g. *of/off*, *be/bee*, *put/putt*, etc.). For instance, VARD will recognize ‘bee’ as ‘be’ whenever it is preceded by a general preposition of a modal auxiliary; and when it is followed by an article or the past tense/past participle form a lexical verb (Rayson, Archer and Smith 2005: 4). Additionally, the tool allows for the joining of originally-separated words, such as ‘it self’ or ‘in deed’. This feature is also valid for those words that are split over two lines.

Figure 4.2 provides a representation of the VARD interface with H135. Thus, the text appears on the left-hand side of the window, where the user can

¹²⁵ The weights associated with each method are not fixed and may change whenever a particular method is more successful than the other. Thus, the tool is constantly ‘learning’ and, therefore it can be ‘trained’ with a sample of a particular corpus so that, after it has learned, the tool will more easily process the rest of the corpus (Baron and Rayson 2008: 8, 2009: 1).

highlight the variants, the normalised words or the non-variants, depending on the selected option on the upper right-hand side of the window. When it comes to the normalisation process, the user has two options: manual and automatic normalisation. In the case of automatic normalisation, the user can allow the tool to normalise all variants to the candidate with the highest percentage of confidence. In order to maintain control over this procedure, a confidence threshold can be provided, that is, the minimum score that a candidate must have in order to replace the variant (Baron and Rayson 2009: 8).

In the case of manual normalisation, some options are available for the purpose. First, a list of words appears in a white box, together with their frequency (this box will show the words selected by the user, i.e. variants, normalised or non-variants). Second, the different options for normalising word(s) appear below the box, where the user can select for one of the options provided by VARD.¹²⁶ *Normalise instance / Normalise all* allow for the normalisation of one or all the variants of a word. Finally, *Instance not variant / All not variant* allows the user to mark word(s) as not variant. This option is useful when VARD marks a word as variant just because it is not recorded in its database (technical nouns, proper nouns, etc.).

¹²⁶ In case no options are offered, or the offered ones are not appropriate, the user can manually add a word to the dictionary (which will be kept in the software for later uses) by clicking on *Normalise to*.



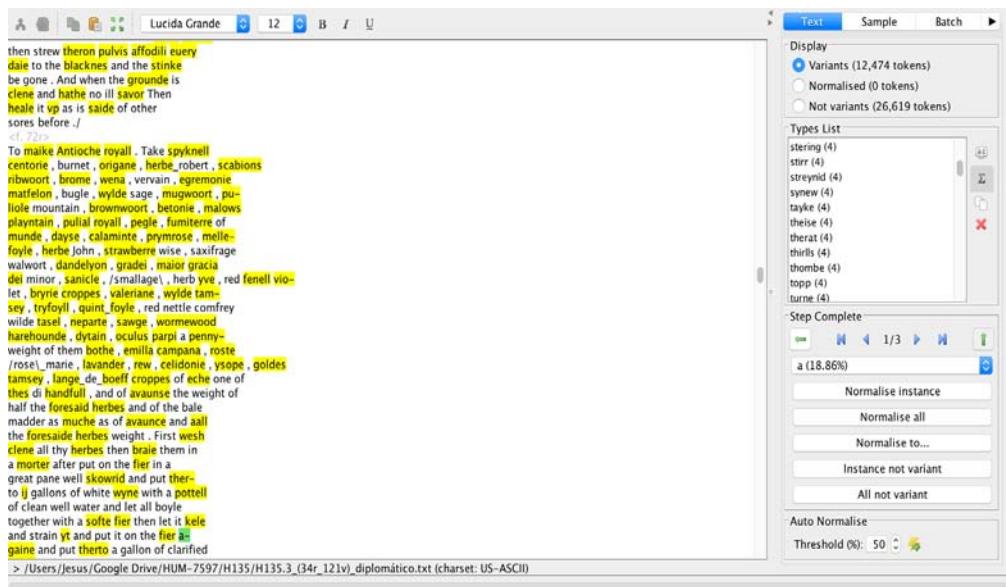


Fig. 4.2. VARD Interface

With the help of this tool, therefore, the linguist will need just four steps to turn any early Modern English text into a normalised text (Archer et al. 2015: 5-6; see also Baron and Rayson 2008):

1. Reading the text in the VARD interface.
2. Identifying the variants within the text, either with the tool's set of candidate variants or marking variant forms manually.
3. Choosing an appropriate candidate for each of the variants within the text, either from the list provided by VARD or by adding it manually.
4. Matching variants and normalised forms so that the original spelling is retained in the XML tag.

After the completion of this process, whether automatically or manually, the user has two options to save the normalised text. The text can be saved retaining the original variants, together with the normalised form (1), which would not affect the searches as the original form appears as part of an XML tag (tags have been

highlighted in bold script for the sake of clarity). On the other hand, the user can preserve just the normalised version (2).

- (1) Take the peony that <normalised orig="beares" auto="false">bears</normalised> the white flower, and <normalised orig="lett" auto="false">let</normalised> the <normalised orig="sicke" auto="false">sick</normalised> <normalised orig="eate" auto="false">eat</normalised> it, and also <normalised orig="drinke" auto="false">drink</normalised> the <normalised orig="Iuice" auto="false">Juice</normalised> thereof, and it will <normalised orig="helpe" auto="false">help</normalised> him also <normalised orig="lett" auto="false">let</normalised> him <normalised orig="weare" auto="false">wear</normalised> it about his <normalised orig="necke" auto="false">neck</normalised>, for it is a most approved true and <normalised orig="Wonderfull" auto="false">Wonderful</normalised> good <normalised orig="helpe" auto="false">help</normalised> in that Malady, and <normalised orig="theres" auto="false">there's</normalised> but few that know it/.
- (2) Take the peony that bears the white flower, and let the sick eat it, and also drink the Juice thereof, and it will help him also let him wear it about his neck, for it is a most approved true and Wonderful good help in that Malady, and there's but few that know it/.

4.3.4.1.1. The spelling normalisation of the texts in H135

Notwithstanding that H135 is an early Modern English witness, it presents a great deal of spelling variation. Consequently, this spelling variation would have a negative effect on the performance of CLAWS, which was designed for Present-day English, hence the need of VARD pre-processing.¹²⁷ For the purpose, the txt versions of both the surgical treatise and the medical recipes were separately processed with VARD. The former amounts up to a total of 19,348 words, of

¹²⁷ See Lehto et al. (2010) for the spelling standardization of *EMEMT* using VARD.

which 6,336 were variant forms (32.7%); whereas the latter is composed of 19,482 words, the number of variants being 6,149 (31.5%). This considered, it could be safely argued that the texts contained in H135 slightly present the same level of spelling variation irrespective of the text type.

Automatic normalisation was carried out with both texts with a threshold of 50%, that is, the confidence score that candidates must have for the replacement of a variant.¹²⁸ The following results were obtained:

	<i>Surgical treatise (ff. 34r-73v)</i>	<i>Medical Recipes (ff. 74r-121v)</i>
Number of variants	6,336	6,149
Auto-normalised variants	4,792 (75.6%)	4,167 (67.7%)
Remaining variants	1,544 (24.4%)	1,982 (32.3%)

Table 4.2. Auto-normalisation of the texts in H135

As shown in Table 4.2, the auto-normalisation process standardises a great deal of spelling variation with just a mouse click, 75.6% in the surgical treatise and 67.7% in the medical recipes. However, a closer check at those normalisations reveals that they are not 100% accurate. At this point, it is necessary to make a distinction between recall and precision, the former “being the proportion of variants that have been successfully standardised” and the latter “being the proportion of standardisation made that are correct” (Baron and Rayson 2009: 9). Therefore, the results in Table 4.2 were manually revised in order to quantify the errors made in the auto-normalisation process.

¹²⁸ See Section 4.3.4.2.1. for an assessment of the accuracy of CLAWS at different levels of automatic standardisation, as well as automatic standardisation + manual post-editing.



	<i>Surgical treatise (ff. 34r-73v)</i>	<i>Medical Recipes (ff. 74r-121v)</i>
Number of variants	6,336	6,149
Recall	4,792	4,167
Precision	4,079 (85.1%)	3,609 (86.6%)
Errors	713 (14.9%)	558 (13.4%)
Remaining variants	1,544	1,982 (32.3%)

Table 4.3. Assessment of the auto-normalisation process

Table 4.3 demonstrates that even though automatic normalisation is time-saving and it can perfectly deal with most spelling variation, the outcome of the process is not always as accurate as it would be expected. This can be appreciated in the fact that there is a 14.9% and a 13.4% of errors in the surgical treatise and the medical recipes, respectively. These errors have been detected by checking the list of normalisations by VARD (Figure 4.3), and also by checking the list of non-variant words.¹²⁹ The list can be ranked either alphabetically or in terms of frequency, allowing the user to undo any detected error. Consequently, these normalisation errors and these non-variants that do not fit in their context can be reverted to the list of variant words, which the user can manually normalise in a later stage.

¹²⁹ It is important to check the list of non-variant words as it may contain words that eventually have a modern English spelling but that do not fit in their actual context, i.e. ‘meek’ for ‘make’, ‘bee’ for ‘be’, ‘off’ for ‘of’, etc.



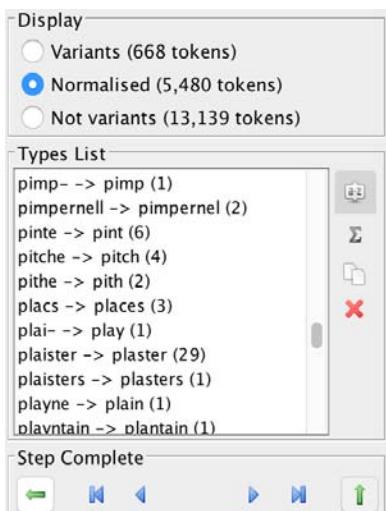


Fig. 4.3. List of normalisations in VARD

After checking the list of normalisations and non-variants, the extant number of variants has to be manually normalised. One of the toughest decisions in the process of normalisation is what to do with the archaic forms, i.e. ‘thowe’ (you) or ‘yarde’ (yard), among others. Different decisions are needed with regard to each particular case. In the case of *-en* plurals, i.e. ‘eyen’, the words were normalised to modern spelling, i.e. ‘eyes’. In the case of full archaic forms, it was decided that these words should be preserved as early Modern English words and, therefore, any attempt to normalise them would eventually derive in less accuracy to the original manuscript. Although these words were preserved, their spelling was normalised to just one form for purely quantitative purposes. In this way, the archaic form offered by VARD was chosen as the standard form to which all the variants would be normalised, as in Figures 4.4 and 4.5.

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other is called dura matter and it is next the pan, **Thowe** shalt know when dura matter is hurt by t^he redness in **rasinge** blac^t dent when **i** all the fores he shall be spots shall and matter **nosethrills** have cold s^t the day and and is the l^l shall not liv Days When the breaking of the pane is great with

Fig. 4.4. ‘Thowe’

Additionally, early Modern English words such as ‘thone’ have been separated (‘the one’) in order for them to be correctly POS-tagged by CLAWS. Another complication has been the normalisation of numerals. The scribes in H135 make use of Roman numerals, and these are not identified by VARD, having to be manually normalised: ‘j’ (one), ‘ij’ (two), etc.

Foreign words have also been dealt with in the normalisation process. Being a scientific text, they occur relatively frequently in H135 in the light of their Latin, Greek or French origin. Thus, these words have been preserved as they appear in the text. Some examples are *vnguentum ruptorium*, *vnguentum viride* or *astrologia rotunda*, among others.

It was a common practice among scribes to split words at the end of lines. This feature, together with the spelling variation proper of early Modern English, also brings about errors of VARD. These split words, therefore, had to be manually joined (VARD allows for the joining of words). Figures 4.6 and 4.7 are examples of what VARD performs whenever any of those words are found.

other place / And if a fistula be in the **yarde** then tent it with *vnguentum ruptorium*
and a yard (94.23%)
as is earth (1.22%)
pimpl hired (1.04%)
vngue yoghurt (0.87%)
there meat
meat Normalise to...
gid w Mark instance as Not variant
else 1 white
white there Select type
there <f. 63v> Mark all as Not variant
Siphac is a little skin which **kepit** in the bowels that they fall not down

Fig. 4.5. ‘Yarde’

ther longithe divers helinge thereto, And some-	tyme the panne is broken with hurtinge of
the t time (60.04%)	▶
be tw thyme (53.37%)	▶
that tim (27.45%)	▶
other tame (0.13%)	▶
pan, tome (0.13%)	▶
is hu More Suggestions...	▶
readr	
rasin	
dent Normalise to...	se
all th Mark instance as Not variant	ou
he sl Select type	and
spoti and r Mark all as Not variant	d
nose haue colde sheveringe axes thries on iiii tyme on	iale

Fig. 4.6. ‘some-tyme’

chere of the patient, and consider if his appe-	tit (21.89%)
tyte be nought if he be castif if he slepe	▶ at the
nou tit (21.89%)	▶
if he tight (19.5%)	▶ is
pan cite (17.94%)	▶
the tote (0.1%)	▶
abo tote (0.1%)	▶
stro More Suggestions...	▶
of t wor ann	▶
wor ann and	▶
and of p m	▶
in w e	▶

Fig. 4.7. ‘appe-tyte’

Some other aspects, both positive and negative, still deserve to be mentioned. First, VARD was successful in joining compound words that are rendered separated and *viceversa*. For instance, VARD joined the groups ‘penny weight’ to ‘pennyweight’; and separated verb forms such as ‘shalbe’ to ‘shall be’.

The errors made by VARD could be divided into two: 1) it considers a word as non-variant but this word was actually not in its proper context; and 2) it normalised the word according to a wrong candidate that eventually had the highest confidence score. In this way, words such as ‘hows’ is considered as a non-variant (Figure 4.8) when it is actually a variation of ‘house’;¹³⁰ and words such as ‘maike’ to ‘meek’ (Figure 4.9), being the candidate with the highest confidence score.

¹³⁰ The *OED* records two instances of ‘how’ as a noun: 1. Care, anxiety, trouble, sorrow; and 2. A hill, hillock or an artificial mound, tumulus or barrow. Note in Figure 4.7 that, when the word is sent to the list of variants, VARD provides ‘house’ as the first candidate with a confidence score of 47.48%. However, in the case of ‘maike’, Figure 4.8, ‘make’ has only 0.07%.

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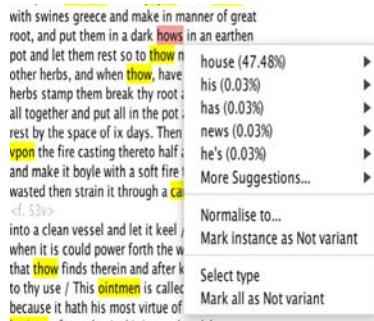


Fig. 4.8. ‘hows’

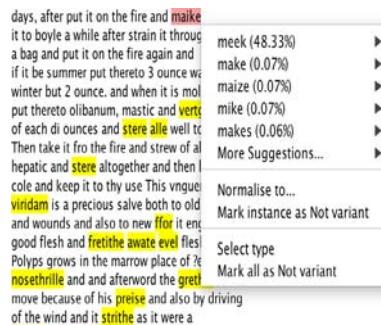


Fig. 4.9. ‘maike’

Finally, VARD also made errors whenever an early Modern English genitive was found. These errors were caused by the fact that the scribes did not mark them with an apostrophe and VARD considered them as plurals. The words ‘swynes’ (Figure 4.10) and ‘shepes’ (Figure 4.11) are examples of this shortcoming. Note that VARD behaves differently with each of these two words, providing a genitive as a candidate to replace them in which the confidence score is very low for ‘swynes’ (0.04%) and very high for ‘shepes’ (80.97%).

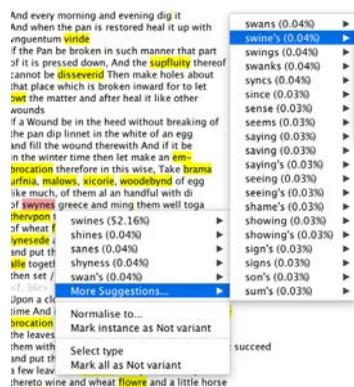


Fig. 4.10. ‘swynes’

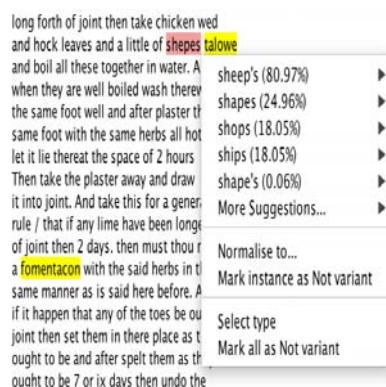


Fig. 4.11. ‘shepes’

4.3.4.2. POS-tagging (CLAWS)

A corpus provided with POS-tags certainly offers many more possibilities than a mere .txt corpus; however, the potentiality of a corpus will ultimately depend on the purpose(s) of the linguist using it. POS-tagging is the commonest form of corpus annotation, where a label (tag) is assigned to each word in the text

“representing its major word class and further morpho-syntactic information” (Rayson 2015: 39). According to Atwell, the process requires

a tag set, a list of grammatical category labels; a tagging scheme, practical definitions of each tag or label, showing words and contexts where each tag applies; and a tagger,¹³¹ a program for assigning a tag to each word in the corpus, implementing the tag set and tagging-scheme in a tag assignment algorithm (2008: 501–502; see also Francis 1987: 198; Sinclair 2002: 50)

In view of this definition, it is taken for granted that the process must, or at least should be, carried out automatically, and this is due to two main reasons: one having to do with the resources and the other with the reliability of the final product. The former is related to the fact that the manual POS-tagging of a small corpus can be handled by a single linguist or a research team, whereas larger corpora obviously require more time and labour. The latter has to do with the inconsistency that may arise if several people intervene in the process, as they may make different decisions at different points. The use of an automatic tagger, therefore, would save time and at the same time it would offer a consistent final product.¹³²

Automatic annotation can be performed with accuracy at the level of morphology (prefix and suffix), lexis (part-of-speech and lemma), syntax (parsing), and semantics (semantic field and word sense). Automatic part-of-speech (POS) tagging of English is possible by producing methods which use

¹³¹ Different tagging programs have arisen during the years. According to Meyer, “the first tagging program was designed in the early 1970s by Greene and Rubin (1971) to assign part-of-speech labels to the Brown Corpus. Out of this program arose the various versions of CLAWS, developed at the University of Lancaster initially to tag the *LOB Corpus* (Leech, Garside and Atwell 1983) and subsequently to tag the *British National Corpus*” (Meyer 2002: 87; Garside, Leech and Sampson 1987; Garside and Smith 1997).

¹³² According to Garside, there are two problems when tagging automatically: the large number of homographs in English and the open-ended nature of English vocabulary (1987: 31–32).

well-defined rules of the language, among other techniques. POS-taggers can be of two different kinds: rule-based or probabilistic. In rule-based taggers, tags are provided for each word according to some rules that have been previously written. For the tagging of the *Brown Corpus*, the process consisted in three basic stages (Francis 1987: 198):¹³³

1. Assigning to each word in the text one or more symbols (tags) from a list of 81, each representing a word-class taxonomically identifiable either by morphology or syntactic use.
2. In the case of words with more than one tag, eliminating, so far as possible by computer examination of context, the irrelevant ones.
3. Continuing step 2 by manual disambiguation.

These routines were carried out in a program called TAGGIT, with an accuracy of 77% approximately, as “many of the words surrounding a word with multiple tags will have multiple tags themselves, making the process of disambiguation quite complicated” (Francis 1987: 202). Rule-based taggers have been outnumbered by probabilistic taggers, which assign tags based on the context in which a word appears. Note, for instance, the sentence *the cutting of fruit was complicated*. If we take the word *cutting*, CLAWS will tag it as a verb (-ing non-finite form of the verb *cut*), however, the fact that it is preceded by a determiner turns it into a noun denoting the activity of ‘cutting something’. This is precisely what probabilistic taggers analyse, based on “information from large corpora [using] probabilities to calculate which POS tag is most likely in a given context” (Rayson 2015: 39–40). Lindquist warns, however, that extremely useful as POS-tags may be, “there are [still] some complications, [as] it is not always obvious

¹³³ The development of these computer routines for tagging was done by Greene and Rubin (1971).



what the correct tag should be”, i.e. *looked after* in *He looked after the children*, verb + preposition or phrasal verb? (2009: 34).

TAGGIT was then used by researchers from Lancaster,¹³⁴ Oslo and Bergen in order to tag the *LOB Corpus*, who introduced some additional tags (from 87 to 134) and made use of three tools facilitated by the Brown research team: 1) a set of tags which had been used for the Brown tagging; 2) the tagged Brown corpus as a database; and 3) the TAGGIT program, which allowed researchers to detect the areas in which the program was less successful (Garside 1987: 32).¹³⁵ This new program was CLAWS (Constituency-Likelihood Automatic Word-Tagging System) and the research team divided the tagging process into three smaller processes: tag assignment, tag selection and idiom tagging (Leech, Garside and Atwell 1983: 17–18; Garside 1987: 32).

The tag assignment (WORDTAG), written by Roger Garside, consisted in a look-up in a wordlist or dictionary in order to determine the specific tags associated to each of the words in the text. In addition, a suffix list (pairings of word-endings and tags, i.e. *-ship* → NN1) is also consulted. The inclusion of a suffix list at this stage is positive as the proper wordlist can be reduced and the set of words accepted by the program can be open-ended (Leech, Garside and Atwell 1983: 18–20).

The tag selection (CHAINPROBS), written by Eric Atwell, “computes transitional probabilities between one tag and the next for all combinations or

¹³⁴ According to Garside (1996: 167; 1993), “the production of annotated machine-readable corpora has been a central activity of the UCREL team at Lancaster University that commenced with the annotation of the LOB corpus.” After that, work continued with corpora that introduced syntactic annotation at the constituent level (Leech and Garside 1991), at the level of anaphora (Fligelstone 1992), word sense and semantic relationship information (Wilson and Rayson 1993), etc.

¹³⁵ This research team added approximately 4,000 words to the wordlist and 200 suffixes to the suffix list (Leech, Garside and Atwell 1983: 26).



possible tags, and chooses the most likely path through a set of ambiguous tags on this basis" (Leech, Garside and Atwell 1983: 20). In other words, the likely tags for each word are provided, where the tag with the highest probability is in square brackets (when necessary). Together with each tag, a percentage is offered, which indicates its probability. Tags with less than 10% of probability are marked with @ while those with less than 1% are marked with % (Leech, Garside and Atwell 1983: 20–22). See Table 4.4.

this	DT
task	NN
involved	[VBD]/90 VBN/10 JJ@/0
a	AT
very	[QL]/99 JJB@/1
great	[JJ]/98 RB/2
deal	[NN]/99 VB/1
of	IN
detailed	[JJ]/98 VBN/2 VBD/0
work	[NN]/100 VB/0
for	[IN]/97 CS/3
the	AT1
committee	NN

Table 4.4. Tag selection process (Leech, Garside and Atwell 1983: 20-22)

Idiom tagging (IDIOMTAG), written by Ian Marshall, deals with sequences of words that are best treated as single words, such as *in order to*, *so as to*, *according to*, etc. For the purpose, it uses "an Idiom Dictionary to which new entries may be added as they arise in the corpus (Leech, Garside and Atwell 1983: 23).

These three programs, which run automatically in CLAWS, proceed as follows: WORDTAG assigns the likely tags for every single word in the text;¹³⁶

¹³⁶ After WORDTAG has run, every syntactic unit has one or more tags associated with it, and about 35% are ambiguously tagged with two or more tags (Garside 1987: 39).

if there is a single tag, it is considered as valid and, if there are more than one, CHAINPROBS will select one of those tags according to the context in which the word appears (the tags in square brackets in Table 4.4); finally, IDIOMTAG may alter the percentages if a given word is part of a sequence (Garside 1987: 35).¹³⁷

In its more updated version, CLAWS4 achieves 96–97% of accuracy, where the POS-tagging process is carried out in five steps (Leech, Garside and Bryant 1994: 622–623):

1. Segmentation of the text into word and sentence units.
2. Initial (non-contextual) part-of-speech assignment (using lexicon, word-ending list and various sets of rules for tagging unknown items).
3. Rule-driven contextual part-of-speech assignment.
4. Probabilistic tag disambiguation.
5. Output in intermediate form.¹³⁸

A post-editing phase is needed in order to amend the possible errors made by the program. The post-editing phase could be divided into two stages: first, ambiguous taggings must be assessed in order to confirm if the probability provided by CHAINPROBS is actually correct; second, a manual check of the whole corpus so as to make the POS-tagging as accurate as possible (Garside 1987: 35).

¹³⁷ Much of the source information used by CHAINPROBS comes from the tagged Brown Corpus, providing a matrix of probabilities of tag y occurring given tag x on the immediately preceding word (Garside 1987: 39). IDIOMTAG, in turn, looks for any of a specified list of about 150 phrases in order to modify the given tags.

¹³⁸ This intermediate form is the form suitable for post-editing, which can then be converted into other formats such as the horizontal output which will be offered to the users of the corpus (Leech, Garside and Bryant 1994: 622–623).



4.3.4.2.1. The POS-tagging of the texts in H135

CLAWS has been selected as the automatic POS-tagger for the Malaga Corpus of Early Modern English Scientific Prose. The CLAWS POS-tagger (Garside and Smith 1997), for example, uses a dictionary which includes words (or multi-word units) and suffixes with their possible parts of speech. This dictionary is based upon Modern English and does not include the large amount of spelling variants (as previously discussed) and the archaic/obsolete words found in EModE texts (Baron and Rayson 2008: 5). Therefore, the spelling variation in H135 naturally poses a problem when automatically POS-tagging the text, where the accuracy of CLAWS decreases. In order to demonstrate this, an experiment was carried out, and it was basically testing CLAWS with H135 at different levels of normalisation by way of VARD. The following excerpt has been included in order to provide an example of the final normalised and POS-tagged corpus.

```
Take_VV0 a_AT1 handful_NN1 of_IO beans_NN2 /_FO proche_NN1
them_PPHO2 on_II a_AT1 tilestone_NN1 pick_VV0 off_RP the_AT
hulls_NN2 bray_VV0 them_PPHO2 in_II a_AT1 mortar_NN1 to_II
fine_JJ powder_NN1 ,_, Seethe_VV0 that_DD1 powder_NN1 in_II a_AT1
pint_NNU1 of_IO red_JJ wine_NN1 and_CC cinnamon_NN1 to_TO
they_PPHS2 be_VBI as_RG thick_JJ as_CSA leach_VV0 then_RT
so_RG soon_RR as_CSA it_PPH1 is_VBZ cold_JJ slice_NN1 it_PPH1
and_CC lay_VVD the_AT slices_NN2 on_II a_AT1 saucer_NN1 before_II
the_AT fire_NN1 and_CC when_CS they_PPHS2 are_VBR warm_JJ
let_VV0 the_AT patient_NN1 eat_VVI them_PPHO2 first_MD
and_CC last._NNU
```

As can be observed, some errors can be appreciated (highlighted in bold script). The first one, ‘proche’ as a noun,¹³⁹ is understandable inasmuch as ‘proche’ is an

¹³⁹ †**proche:** to prick, pierce, spur (*OED* s.v. *proche*, v. 1).



obsolete word (according to the *OED*) and, therefore, it is presumably not included in the CLAWS dictionary. The same happens with the word ‘leach’,¹⁴⁰ which is tagged as a verb but it is in fact a noun. In the cases of ‘to’, ‘first’ and ‘last’, they are wrongly tagged, as they should be adverbs. Finally, ‘slice’ is wrongly tagged as a noun (it is in fact a verb), most likely because it is preceded by an adjective.

In order to evaluate the accuracy of CLAWS, the texts in H135 were automatically normalised at different levels, with thresholds of 0%, 50% and 70%, that is, from a totally normalised text to a text in which only those candidates with above 70% of confidence score have replaced their variant. In order to calculate the accuracy of CLAWS in these samples, 1,000 words belonging to the surgical text and 1,000 to the medical recipes were manually taken. Table 4.5 shows the results.

	Surgical treatise	Medical recipes
No spelling normalisation	82.9	83.9
Automatic normalisation (threshold 50%)	91.6	93.3
Automatic normalisation (threshold 70%)	94.5	95.7
70% threshold + manual normalisation	96.8	97.2

Table 4.5. CLAWS accuracy at different levels of normalisation (%)

The data in Table 4.5 demonstrates the need for spelling normalisation when automatically POS-tagging early Modern English texts. It must be noted that, at a threshold of 50%, more words are normalised albeit these are not always correct, hence the higher rate of error if compared with a normalisation at a threshold of 70%. As observed, with no normalisation, CLAWS is effective at a rate of 82.9% and 83.9% in the surgical treatise and the medical recipes, respectively. This would mean that almost one out of five words would be erroneously tagged, approximately 200,000 words in a 1,000,000-word corpus.

¹⁴⁰ †*leach*¹: a slice (of meat, etc.); a strip (*OED* s.v. *leach*, n. 1).

When it comes to automatic normalisation, on the one hand, at a threshold of 50% the accuracy of CLAWS improves 8.7% and 9.4% in the surgical text and the medical recipes, respectively. Moreover, at a threshold of 70%, accuracy improves 11.6% and 11.8% in the surgical treatise and the medical recipes, respectively. On the other hand, when automatic normalisation (threshold=70%) and manual normalisation are combined, accuracy improves once again. Thus, auto-normalisation with a threshold of 70% together with manual normalisation of the remaining variants improves the POS-tagging process at a rate of 13.9% and 13.3% in the surgical treatise and the medical recipes, respectively. Therefore, the texts under study in the present PhD dissertation are POS-tagged with an accuracy of 96.8% and 97.2%, an accuracy similar to that obtained in PDE.





CHAPTER 5

THE LINGUISTIC COMPLEXITY IN THE TEXTS OF H135

The present chapter assesses the level of linguistic complexity in the texts of H135 analysing three different layers of language use: textual organisation; linguistic features associated with reduced linguistic complexity; and linguistic features associated with increased linguistic complexity. For the purpose, section 5.1 provides a theoretical framework for linguistic complexity as well as previous studies on the topic; section 5.2 elaborates on a working definition of genre, register and text type; section 5.3 analyses the texts from a macro-linguistic and a micro-linguistic perspective; and section 5.4 offers a discussion of the results.

5.1. Linguistic complexity: a theoretical framework

By a complex system I mean one made up of a large number of parts that interact in a nonsimple way (Simon 1962: 468).

On theoretical grounds we could expect complex systems to be hierarchies in a world in which complexity had to evolve from simplicity (Simon 1962: 482).

These excerpts have been taken from Simon's early definition of complexity, which has proven valid for many research fields, where he assumes that complexity originates from simplicity.¹⁴¹ Later on, this definition was further elaborated by Rescher evaluating complexity as "a matter of the number and variety of an item's constituent elements and of the elaborateness of their interrelational structure, be

¹⁴¹ Following this thread, Karlsson argues that the term complexity can be sporadically employed to refer to "the whole parameter 'complex–intermediate–simple'", implying that complexity will not be fully understood if the other end of the parameter (simplicity) is not considered (2014: 145–146).



it organizational or operational” (1998: 1).¹⁴² Moreover, Dahl (2004: 21) provided a third definition arguing that complexity would depend on the length of the account needed to describe the system.

Of these three definitions, Simon’s is obviously of paramount importance as it was ground-breaking in the 1960s. However, Rescher not only provides a definition but also a quite detailed taxonomy of different aspects of complexity operating at different levels: epistemic, ontological and functional. Thus, Simon’s definition would fall within constitutional and hierarchical complexity (Rescher’s ontological level) and Dahl would do so within descriptive complexity (Rescher’s epistemic level).

If this is applied to linguistics, it would mean that language is composed of small units that, when combined, form hierarchies where different governing levels can be observed. These simple elements would be affixes and/or inflections, followed by words and phrases; whereas clauses/sentences as well as mechanisms such as coordination or subordination would stand for the hierarchical relationships among the elements.

MODES OF COMPLEXITY

EPISTEMIC MODES

Formulaic Complexity

1. Descriptive Complexity

Length of the account that must be given to provide an adequate description of the system at issue.

¹⁴² According to Rescher, “simplicity represents economy and orderliness in a thing’s make-up or operations; [whereas] complexity [represents] its elaborateness as reflected in the intricacy or even actual disharmony in these regards” (1998: 8).



2. Generative Complexity	Length of the set of instructions that must be given to provide a recipe for producing the system at issue.
3. Computational Complexity	Amount of time and effort involved in resolving a problem.

ONTOLOGICAL MODES

Compositional Complexity

1. Constitutional Complexity	Number of constituent elements or components.
2. Taxonomical Complexity	Variety of constituent elements: number of different kinds of components in their physical configurations.

Structural Complexity

3. Organizational Complexity	Variety of different possible ways of arranging components in different modes of interrelationship.
4. Hierarchical Complexity	Elaborateness of subordination relationships in the modes of inclusion and subsumption.

FUNCTIONAL COMPLEXITY

1. Operational Complexity	Variety of modes of operation or types of functioning.
2. Nomic Complexity	Elaborateness and intricacy of the laws governing the phenomena at issue.

Table 5.1. Rescher's Modes of Complexity (1998: 9)

Taking Rescher's classification into account, we could associate different linguistic features with different modes of complexity. For instance, sentence length would fall within constitutional complexity; subordination would work at hierarchical level, as it represents different governing levels within the system; and text layout would be included into organisational complexity, as it shows the arrangement of the different parts of a text and its components.

Language complexity has been hotly debated during the course of the last century and, despite the different linguistic trends of different schools (i.e. descriptivists and generativists), there has been general consensus on the invariance of language complexity (Sampson 2009: 2).

[...] impressionistically it would seem that the total grammatical complexity of any language, counting both morphology and syntax, is about the same as that of any other. This is not surprising, since all languages have about equally complex jobs to do, and what is not done morphologically has to be done syntactically. Fox, with a more complex morphology than English, thus ought to have a somewhat simpler syntax; and this is the case (Hockett 1958: 180–181).

However, this assumption has been recently criticised as there have been numerous studies demonstrating that there are conditioning factors that eventually increase or decrease the level of complexity.¹⁴³ In her work, Nichols provides a definition of what she calls *grammatical complexity*: “a complex system as one consisting of many different elements each with a number of degrees of freedom” (Nichols 2009: 111). In addition, she enumerates four different parameters on which complexity can be measured: the number of elements

¹⁴³ In this vein, Nichols argues that “what is needed is a cross-linguistic survey of complexity levels in different parts of phonology, grammar, and lexicon. If the sample were large enough and the complexity survey broad and detailed enough, this would tell us whether all languages are in fact equally complex, or at least whether there is some optimal overall level of complexity and/or some upper and lower limit to overall complexity” (2009: 110–111).



contained in each grammar's subsystem (genders, cases, tenses, etc.), the number of paradigmatic variants or degrees of freedom (allophones, allomorphs, etc.), syntagmatic phenomena (syntagmatic dependencies among elements, such as agreement, among others) and constraints on elements, alloforms and syntagmatic dependencies together with their combination (Nichols 2009: 112).¹⁴⁴

5.1.1. Linguistic features denoting complexity

There are studies trying to identify various linguistic features to assess different levels of complexity in a given text. However, as far as I know, no approach has been made using early English medical writing as the input, a fact which sharply contrasts with the various studies in English complexity, both synchronically and diachronically. Among the synchronic approaches to the topic, Crystal and Davy (1969), Biber (1992) and Bhatia (1993) analysed different text types in contemporary English; while Danet (1980) did so exclusively in legal English. When it comes to diachronic studies, in turn, Hiltunen (1990) and Lehto (2015) approached the topic in early Modern English legal texts.

Crystal and Davy's work (1969) was ground-breaking inasmuch as they not only identified the different features of some English text types (i.e. the language of conversation, unscripted commentary, religion, newspaper reporting and legal documents), but also outlined a series of text types for future research (i.e. the television advertising, press advertising, public speaking, written instructions, civil service,¹⁴⁵ spoken legal language, broadcast talks and news and

¹⁴⁴ This latter parameter refers to the reduction of the number of combinations between particular components of the system. These restrictions could be considered to increase or decrease the level of complexity, depending on whether we consider complexity as the number of elements contained in the system or the information required to describe the system, respectively (Nichols 2009: 112).

¹⁴⁵ This refers to the body of rules and regulations that are applicable to the various members of a society (Crystal and Davy 1969: 242).



science). In their work, they analysed the different text types in terms of phonetic/graphetic, phonological/graphological, grammatical, lexical and semantic levels (Crystal and Davy 1969: 15). This allowed them to identify, among others, inexplicitness of the language, randomness of subject matter and normal non-fluency as characteristic elements of the language of conversations; or the use of vocatives and simple sentence structure as characteristics of religious language.

This work served as a base for Biber's analysis (1992), based on Biber (1985; 1988), where a macroscopic analysis of different registers was carried out through the identification of five different dimensions of textual variation.¹⁴⁶ For the purpose, Biber analysed the distribution of 67 linguistic features across 481 texts belonging to 23 spoken and written registers and, by means of an exploratory factor analysis, five different dimensions of variation were identified among registers in English.¹⁴⁷ These dimensions were 'involved vs. informational production', 'narrative vs. non-narrative concerns', 'explicit vs. situation-dependent reference', 'overt expression or persuasion' and 'abstract versus non-abstract style' (1988: 170–198). The different dimensions contain two sets of linguistic features that co-occur in a complementary pattern, that is, when one of the groups occurs frequently in a particular text, the other is less frequent in that text. In other words, the occurrence of one set of features implies the scarcity of the other (Biber 1989: 8–9; see also 170–198).

¹⁴⁶ According to Biber, "macroscopic analysis attempts to define the overall dimensions of variation within a set of texts. Microscopic analysis, in turn, provides a detailed description of the communicative functions of particular linguistic features in particular texts" (1985: 338).

¹⁴⁷ A linguistic dimension is determined on the basis of a consistent co-occurrence pattern among features. That is, when a group of features consistently co-occur in texts, those features define a linguistic dimension (Biber 1988: 13).



In Biber (1992), 33 out of those 67 linguistic features were labelled as potential markers of linguistic complexity, some of them indicating reduced complexity and others pointing to increased complexity.

List of 33 surface features associated with linguistic complexity

I. Features associated with reduced complexity

A. Structural reduction

1. *That* deletions
2. Contractions

B. Less specified reference

3. Pro-verb *Do*
4. Pronoun *It*
5. Demonstrative pronouns

C. Fragmented structure

6. Clause coordination
-

II. Features associated with increased complexity

D. Integrated structure

7. Nouns
8. Prepositions
9. Attributive adjectives
10. Nominalizations
11. Phrasal coordination

E. Lexical specificity

12. Word length
13. Type/token ratio

F. Passive constructions

14. Agentless passives
15. *By*-passives

G. Dependent clauses

- G1. Structural elaboration of reference – post-nominal modifiers



16. Wh-relative clauses on subject position
17. Wh-relative clauses on object position
18. “Pied piping” relative clauses
19. *That*-relative clauses on object position
20. *That*-relative clauses on subject position

G2. Attitudinal clauses

21. Sentence relatives

G3. Complement clauses

22. Wh-Clauses
23. *That*-complement clauses to verbs
24. *That*-complement clauses to adjectives
25. Infinitives

G4. Adverbial clauses

26. Conditional adverbial subordination
27. Causative adverbial subordination
28. Concessive adverbial subordination
29. Other adverbial subordination

G5. Participial clauses

30. Present participial post-nominal clauses
31. Past participial post-nominal clauses
32. Present participial adverbial clauses
33. Past participial adverbial clauses

Table 5.2. Linguistic features associated with complexity (Biber 1992: 140)

It is important to take into account that what is being measured by way of the frequency of the linguistic features in Table 5.2 is the product rather than the process, that is, the representation of the surface structure of language.¹⁴⁸ In other words, linguistic features such as *that*-deletions, contractions or the use of the anaphoric pronoun *it* would imply a less complex surface structure but, at the

¹⁴⁸ In this vein, Biber argues that the “inclusion of features relating to information packaging, cohesion, and rhetorical organization would enable further models” of analysis (1992: 160).



same time, these utterances would require a greater effort on the part of the listener/reader to decipher the message.

The study sheds light on the differences between spoken and written registers, where it is demonstrated that spoken registers are limited in relation to the complexity levels they can perform, whereas written registers show quite different levels of complexity depending on the different text types (Biber 1992: 160).

A different approach is observed in Bhatia's (1993) work on professional genres, where three genres are analysed: product and self-promotion in business settings, research genres in academic settings¹⁴⁹ and legal discourse in professional settings. The two first genres are analysed in terms of their structure, which is conditioned by the communicative purpose of both genres. These structures contain a series of moves according to the communicative purposes, which will eventually allow the reader to identify the genre easily.

Research genres in academic settings	<ol style="list-style-type: none"> 1. Introducing purpose 2. Describing methodology 3. Summarising results 4. Presenting conclusions
Product and self-promotion in business settings	<ol style="list-style-type: none"> 1. Establishing credentials 2. Introducing the offer 3. Offering incentives 4. Enclosing documents 5. Soliciting response 6. Using pressure tactics 7. Ending politely

Table 5.3. Structural properties of genres in Bhatia (1993)

¹⁴⁹ The analysis of this genre is limited to abstracts and introductions of articles, focusing on their communicative purposes and their structure.

The analysis of legal discourse in professional settings is different inasmuch as Bhatia (1993: 106–113) provides a series of syntactic properties that are commonly found in the texts belonging to that genre, and that certainly contributes to the linguistic complexity of that text:

1. Long sentences.
2. Nominal character.
3. Complex prepositional phrases.
4. Binomial and multinomial expressions.
5. Initial case descriptions.
6. Qualifications.
7. Syntactic discontinuities.

This analysis takes many of the elements analysed by Danet (1980) in a previous study on contemporary legal texts. Her analysis is based on four different levels: lexical features (technical terms, loanwords, unusual prepositional phrases, etc.), syntactic structures (nominalisation, passives, conditionals, impersonality, etc.), discourse level features (lack of cohesion, lack of pronouns, etc.) and prosodic features (alliteration and assonance) (Danet 1980: 474–487).

Finally, Lehto (2015) carried out a diachronic analysis evaluating if the level of complexity in legal writing increases over time. For the purpose, she analysed six linguistic levels: text structure, sentence length and punctuation, clausal coordination, phrasal coordination, subordination and lexical bundles. This study is particularly relevant inasmuch as it addresses linguistic complexity from a diachronic point of view, allowing for an evaluation of the evolution of certain linguistic features. Among her findings, she concluded that the use of punctuation is quite consistent in the data (even in the fifteenth century) and that documents show a considerable structural organisation (Lehto 2015: 135). Furthermore, she demonstrates that the connector *and*, the most widely used in



the period, declines towards the end of the corpus line, a fact which coincides with an increase in the use of punctuation (Lehto 2015: 170).

In my opinion, three of these approaches complement each other and are all necessary for the study of linguistic complexity. First, the seminal work by Crystal and Davy (1969) and later the work of Biber (1992) provided quite an acceptable set of linguistic features on which an assessment of linguistic complexity can rely, either from a macroscopic or a microscopic perspective. In addition to these, Bhatia (1993) included macro-textual elements (i.e. text structure) that also have some effect on the complexity of a text. To these Lehto (2015) also incorporated text layout as an additional distinguishing criterion.

This considered, the following sections offer an assessment of linguistic complexity in the texts contained in H135. A microscopic analysis is proposed where the textual organisation as well as the frequency of Biber's linguistic features (1992) is compared in both texts.¹⁵⁰ For the purpose, section 5.2 offers a working definition of genre, register and text type, necessary to see the differences between surgical treatises and remedybooks *a priori*; Section 5.3 provides an assessment of complexity in the texts, organised into textual organisation, features associated with reduced complexity and features associated with increased complexity; and Section 5.4 enumerates the conclusions.

5.2. Genre, register and text type: a working definition

The relevance of context in the study of language was initially approached by Halliday four decades ago, when he developed the theory of 'language as social semiotic' (Halliday 1975, 1978; Halliday and Hasan 1985),

¹⁵⁰ Both macro-analysis and micro-analysis are mutually dependent. While macro-analysis depends on the co-occurrence of relevant linguistic features, micro-analysis "benefits from the overall theoretical framework provided by macroanalysis" (Biber 1985: 339).

A social reality (or a ‘culture’) is itself an edifice of meanings – a semiotic construct.¹⁵¹ In this perspective, language is one of the semiotic systems that constitute a culture; one that is distinctive in that it also serves as an encoding system for many (though not all) of the others (Halliday 1978: 2).

This theory has its foundations in John Firth’s (1935)¹⁵² work on ‘sociological linguistics’, which discussed the study of language from a social perspective and outlined a classification of contexts of situation within a greater context of culture, each displaying specific linguistic features.¹⁵³ In fact, it could be said that text and context are “so intimately related that neither concept can be enunciated without the other” (Halliday 1973: 49; Halliday and Hasan 1985: 52).

The idea of context is also related to the fact that each form of communication, whether written or spoken, has a purpose that ultimately determines its nature. Therefore, different purposes will feature different characteristics and structure, hence the possibility of identifying the intentions of the sender of the message by the way language is constructed (Eggins 1994: 4). Furthermore, by providing the study of language with this social component, the interaction between people is understood as an elementary constituent of

¹⁵¹ Halliday (1975: 60) describes the ‘sociosemiotic’ aspect of language as the synthesis of three modes of interpretation, that of language in the context of the social system, that of language as an aspect of a more general semiotic, and that of the social system itself as a semiotic system. In other words, it is the definition of a social system, or a culture, as a system of meanings.

¹⁵² Saussure is often referred to, together with Peirce, as the father of semiotics, as he had already addressed the topic in *Course in General Linguistics* (1916), assuring that “if we are to discover the true nature of language, we must learn what it has in common with other semiological systems” (Fawcett et al. 1984: xxiii).

¹⁵³ It was Bronislaw Malinowski from whom Firth derived his notions of ‘context of culture’ and ‘context of situation’ (Malinowski 1923); and Malinowski’s ideas about what we might call cultural and situational semantics provide an interesting starting point for the study of language and social man, since they encourage us to look at language as a form of behaviour potential (Halliday 1973: 49).



language, which will be interpreted within a sociocultural context, where the culture itself is interpreted in semiotic terms (Halliday 1978: 2). Thus, culture plays an important role in the understanding of any given text, as its meaning has much to do with the information shared between the writer (or speaker) and the reader (or listener) of a text (or any other form of communication).

The concept of genre is used to describe the impact of the context of culture on language by exploring the staged, step-by-step structure cultures institutionalise as ways of achieving goals (Eggins 1994: 9).¹⁵⁴ It is the way in which texts are structured according to the seeking of a particular goal in a particular culture, differing from register in that genre pursues the study of complete texts to analyse features that help establish a common structure in different texts of the same variety, while register focuses on specific situational contexts that can be analysed in small excerpts (Biber and Conrad 2009: 16). Swales, for instance, defined genre as

[...] comprising a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale of the genre. This rationale shapes the schematic structure of the discourse and influence and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived narrowly focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. If all high probability expectations are realized, the exemplar will be viewed as prototypical by the patient discourse community (2004: 58).

¹⁵⁴ According to Moessner, “the concept [of genre] can be traced back to Aristotle, who established the genres tragedy, comedy, and epic on the basis of the object and the mode of presentation (2001: 131).



This position falls between two other schools of genre proposed by Hyland (2002: 114–115). First, the New Rhetoric group regards genre as “a socially standard strategy, embodied in a typical form of discourse, that has evolved for responding to a recurring type of rhetorical situation” (Coe and Freedman 1998: 137). This position is mainly concerned with the sociolinguistic background of both communities and text users rather than with texts themselves. Second, the Sydney School, based on Halliday’s Systemic Functional Linguistics (1994), views genres as the schematic structure of texts in order to serve different social purposes.

Taavitsainen’s study of medical writing in Middle and early Modern English views genres as “inherently dynamic cultural schemata used to organise knowledge and experience through language. They change over time in response to their users’ sociocultural needs” (2001: 139–140; see also Taavitsainen 2004: 75).¹⁵⁵ This definition fits perfectly with the historical development of early English medical writing, as it was during the fourteenth and fifteenth centuries when texts of this kind started to be created in English for the first time, and the genre conventions had to be created. In this period, we assist to a shift from Latin and/or French to English as the lingua franca of science in Tudor England (Pahta 2001: 205–206). Socially-biased as they are considered to be, genres vary and new genres are created when they are needed in society, and the emergence of the experimental essay perfectly depicts this phenomenon.

The innovative characteristics of this new text type derived from the great importance attributed to the experimental process in the research programmes of Early Modern English men of science, who [...] shared the

¹⁵⁵ Taavitsainen proposes a similar definition of genres, seeing them “as a mental frame in people’s minds which gets realised in texts for a certain purpose in a certain cultural context” (2001: 140). Taavitsainen also connects genres to the idea of appropriation, “the process by which meaning is negotiated and produced and the ways in which discourses affect the reader and lead to a new form of comprehension of oneself and the world” (2004: 76). This being so, the meaning of different texts would be recreated any time they are read for the first time by a different reader.



principle that the progress of knowledge could not be based on the servile observance of traditional theory, but should rely on the observation of natural phenomena and accurate experimental activity (Gotti 2001: 221).

Among the features of this new text type we find brevity, precision, lack of assertiveness (no requirement to come to a particular conclusion, but exposing everything that has been encountered), perspicuity, simplicity and objectivity (Gotti 2001: 224–235). As observed, many of these features would have clashed with the prevailing scholastic model of science in the late Middle Ages. Thus, what we see here is an upcoming text type to serve the new needs of the scientific community, among which we may highlight brevity, precision and objectivity.

The situational context, or register theory,¹⁵⁶ describes the impact of dimensions of the immediate context of situation of a language event on the way language is used. Three key dimensions of the situation are identified as having significant and predictable impacts on language use. These three dimensions, the register variables of mode (amount of feedback and role of language), tenor (role relations of power and solidarity) and field (topic or focus of the activity), are used to explain our intuitive understanding that we will not use language in the same way as to write as to speak, to talk to our boss as to talk to our lover and to talk about linguistics as to talk about jogging (Halliday and Hasan 1985: 29–34; Martin 1992: 508–542; Eggins 1994: 9).

Finally, text types represent the linguistic realisations of genres, that is, they contain a series of linguistic features that may or may not belong to a common genre. Given this, a genre or register can contain different text types which may share the specific schemata of their genre and, at the same time,

¹⁵⁶ Register has been defined by Biber as texts varieties of a language associated with particular situations of use (2012: 191). Trosborg, in turn, interpret registers as “an open-ended set of varieties (or styles) of language typical of occupational fields, such as the language of religion, the language of legal documents, the language of newspaper reporting, medical language, technical language, etc.” (1997: 5).



contain different linguistic features. Consequently, text types differ from genres in that the former are characterised by their internal linguistic elements whereas the latter are shaped by way of extra-linguistic features (Biber 1988: 70; see also Lehto 2015: 31).¹⁵⁷ According to Taavitsainen, a text type is

a codification of linguistic features, but its individual members contain these features in various degrees in various combinations. Text types are heterogeneous, the borderlines are fuzzy and the features overlap. Some prototypical text type features, such as sentence forms, have been identified, but the actual texts seldom exhibit these in pure form. Thus, the analyst has to go further and consider the overall structure and purpose of the text (2001: 142; see also Taavitsainen 2004: 75).

If this categorization is applied to medical writing, it will be found that medical texts for learned and lay people employ different linguistic features and vocabulary, as context is made up of different layers that include the micro-level co-text (linguistic features) and the cultural, intellectual and historical macro-level (genre conventions) (Taavitsainen and Fitzmaurice 2007: 25–26; Taavitsainen 2011: 95). Moreover, even though genres present different linguistic features, they do not fully represent the variety of texts within the English language. Therefore, distinct texts belonging to the same genre (i.e. newspaper articles can be both narrative and colloquial or, on the contrary, informational and elaborated) would represent different text types; while similar texts within different genres would stand for a single text type (Biber 1989: 6).

¹⁵⁷ According to Kohnen (2001a: 197), the definition of text type has been historically divided into two different aspects. On the one hand, analysing texts in terms of extra-linguistic parameters (addressor, addressee, purpose, discourse situation, etc.). On the other, analysing texts in terms of formal parameters, that is, the co-occurrence patterns of morpho-syntactic features (Biber 1988). In the present study, however, those studies within the first aspect are considered to belong to genre studies, whereas those within the second aspect are identified as text type approaches.



These social aspects (specific language patterns designed for the achievement of particular social goals, be it scientific writing or private letters, to name but two) have one more consequence that may have an impact on language variation and/or evolution. Thus, different text types may accelerate the diffusion of certain linguistic features, where “the linguistic patterns of texts associated with an important and powerful institution seem to spread much more easily than those of other, less prestigious texts” (Kohnen 2001b: 115).¹⁵⁸

To sum up, in the following sections I will refer to genre as the intended linguistic structure serving socio-cultural purposes. Register will be considered as the context of situation. Finally, text types will embody the linguistic realisations of genre. It must be noted that the present chapter analyses text structure and layout as well as the frequency of certain linguistic features in two different text types (i.e. surgical treatise and medical recipes) belonging to the same genre (i.e. medical writing).

5.3. Analysis

In order to assess the level of complexity in the surgical treatise and the collection of recipes, a two-stage analysis is proposed. Consequently, macro-linguistic factors such as text structure and text layout are evaluated in Section 5.3.1, as they certainly have an impact on the way information is processed by the speaker. Subsequently, Section 5.3.2 analyses the frequency of a set of linguistic features that signal reduced or increased linguistic complexity.

5.3.1. Macrolinguistic factors

Text structure and text layout have been selected as indicators of complexity on macro-linguistic grounds. Within the former, the different parts of the texts (i.e.

¹⁵⁸ Kohnen describes the function of text types as “that of a catalyst, i.e. as an agent which facilitates a change and is responsible for the spread, but not for the origin of a construction” (2001b: 111).



surgical treatise and medical receipts) will be described while the latter incorporates titles, paragraphing, script size, marginalia and the use of capital letters. Some of these elements are further classified, such as the title (standing alone in a single line, being part of the paragraph, in the marginalia, or whether by a different script) or the script size.

This macro-linguistic analysis, therefore, falls within the field of discourse analysis, which is a branch of linguistics that can be divided into three subcategories: 1) the study of language use; 2) the study of linguistic structure ‘beyond the sentence’; and 3) the study of social practices and ideological assumptions associated with language and/or communication (Schiffrin, Tannen and Hamilton 2001: 1; see also Biber, Connor and Upton 2007: 1). While the first focuses on the use of specific linguistic structures and their different meanings, the second concentrates on elements such as the different paragraphs of a text and the lexico-grammatical features for the organization of discourse. Finally, the third subcategory refers to the reason why texts are written following specific genre conventions and why they are used by a particular community (Biber, Connor and Upton 2007: 1–6).

If these three categories are linked to the definitions of genre and register (see 5.2 above), it is found that they fall within different subcategories of discourse analysis. Thus, the study of language would be associated with register whereas the study of the linguistic structure ‘beyond the sentence’ would be associated with genre.

5.3.1.1. Text structure

This stage of the analysis belongs to the field of text linguistics, which at the same time is part of discourse analysis. Text linguistics came out of the conviction that the study of language should not only be limited to the sentence and its actual elements, but also to the different groupings of these sentences into paragraphs



and then into texts. In this vein, Östman and Virtanen (1995: 245–251) identified five different fields of study in text Linguistics.

1. Information structure. It is related to the different word orders that may be found in English sentences, according to the arrangement of new versus old information. Thus, the amount of new information is assessed in order to see whether it is influencing the use of a particular construction or not (i.e. passive constructions, etc.).
2. Cohesion. The explicit linking of sentences by means of repetitions of items, co-reference, etc.
3. Coherence. The interpretation of the text, that is, “the text world which the text receiver is building around the text” (Östman and Virtanen 1995: 249).
4. Grounding. Linguistic elements that are used to check the listener’s comprehension, to make discourse more interesting (i.e. jokes, expressions of feeling, etc.), or to transmit the intended message.
5. Discourse types and genres. The analysis of particular characteristics of genres and registers that directly influence their text structure.

A different approach to the analysis of genre through text structure is that proposed by Swales (1990). In his analysis, he identified different rhetorical moves or communicative purposes characteristic of different genres.¹⁵⁹ These moves are, at the same time, further classified into conventional (those occurring more frequently in the texts of a genre) and optional (those occurring less frequently) (Biber, Connor and Upton 2007: 24). Therefore, texts belonging to the same genre incorporate the same moves even though they may present a different distribution.

¹⁵⁹ According to Biber, Connor and Upton, “a move [is] a section of a text that performs a specific communicative function. Each move not only has its own purpose but also contributes to the overall communicative purpose of the genre” (2007: 23).



In order to compare the structure of the different texts in H135, an analysis of the moves in their structure was carried out. In the case of the surgical treatise, eight different moves have been identified:

1. Description of the problem
2. Tokens of the disease/bad condition
3. Surgical operation
4. Wound healing
5. Likely complications
6. Alternative wound healing
7. Efficacy phrase
8. Surgeon's personal experience

Of these moves, only three are present in all the treatments: description of the problem, surgical operation and wound healing. It must be noted, however, that some of the treatments do not require a surgical operation *per se*, as they are at skin level. In such a case, the compulsory moves are reduced to two: description of the problem and wound healing.¹⁶⁰

Regarding the description of the problem, there are different structures in the text. For instance, the excerpt may open with a description of the different problems found in a specific body part (1), a description of a wound caused by a certain weapon (2), or a definition of a particular cutaneous malady (3).

- (1) THE heade happenithe to be wounded in divers manners, Somtyme with breakinge of the panne, and somtyme withoute breaking thereof, And Somtyme yt is a litle wounde in the skyne and somtyme a greate, wherfore ther longithe divers helinge therto, And sometyme the panne is broken with hurtinge of the tees and then it is for to

¹⁶⁰ It must be noted that, even though there are only three rhetorical moves that are always present in the surgical treatments, what we find is these three moves together with others, making the text structure of surgical treatments quite unpredictable.



dreade, Ther be two teese, one is callyd pia matter and that is the nethermost, next the braines, the other is callid dura matter and it is next the pan (f. 34r).

- (2) FOR Wounde with arow or darte in the visag by the nose thrills or besyde the eighne on the cheke bone so that the yron haue entrid depe or slekythe *within* some narow crooked place then it is wonderfull laboriouse to draw furthe (f. 38r).

A WOUND with a Sworde happenithe to be many times in the thighe with hurting of the bone or not (f. 67v).

IF THE WHIRLEBONE BE HURTE with a sworde in suche manner that some of the bone be smitten awaie and some abyde still (f. 67v).

- (3) A FISTULE is an apposteme whose mowthe is straite *without* and the grounde of yt within is large which fystule is causid and gendrid somewhiles of Inwardlie thinges and somewhiles of outwardly thinges (f. 52r).

Sometyme There springe Certeyn rownde knobbis like to wax kernells and some Are greater and some smaler, And we call them in englishe wennes or scrophules And some of the knobbis ar hard and some are softe and some be moveble and some unmoveble (f. 40r).

After the explanation of the malady, the text sometimes includes a list of tokens for the surgeon to detect the health problem. These tokens are specially provided when the malady is related to bones or it is not at skin level (4).

- (4) Thowe shalt knowe when dura matter is hurte by thes tokens, Akinge in the heade, readnes in visage, swellinge in the eine And rasinge blacknes of the townge and cadent when pia matter is hurte thowe shalte se all the foresaide tokens with those that folow he shalbe specheles and certeyn pustules and spotts shall appeare in his face, also bloode and matter shall come furthe at his eares and nosethrills

and he shalbe costiff and he shall haue colde sheveringe axes thries or iiiij tyme on the daie and this is certeyn token of deathe and is the last of the foresaide signes and he shall not live at the most passinge a hundredth Dayes (f. 34r).

The tokens of polipus that is curable be thees, the gobbet of fleshe is blak and alle the nose is wonder hard and blakishe of colour and the Gobbett fallithe not downe but remanithe aboue in the straite place of the nose (f. 43r).

SOMETYME The heedes of the cheke bones are out of their ionte which is knowne by thes tokens the nether tethe may not ioine with the over closelye as they shoulde do and thus it is to be holpen (f. 44r).

Once the problem has been identified, either by means of the description or by the tokens, the surgical operation is introduced. It often implies the use of different instruments in order to draw out (5) or leave in (6) a fragment of a broken bone or even the weapon that caused it, as well as the sewing of wounds (7), cutting the infected skin (8), or putting a bone back in its place (9). Moreover, there are some surgical operations requiring a combination of different techniques: sewing and stop bleeding; opening the wound and drawing out the weapon that caused it; or healing the wound again (10).

- (5) Firste we ought to haue a pare of tonge therfore and therwith thrust the barbes of the heade together and then take fast holde by those two barbes and warely draw it furthe (f. 39r).

And if it yet stikfast then take ij holow pipes of yron or bras or two goose pens And then fast the tonge on the myddle parte of the heade and draw it owte wisely (f. 39r).

drawe it furthe if thowe maye that is to saie if yt stick not fast or if the patient blede not muche, or if thowe be not like to greve þe patient verie sore (f. 34v).



(6) And therwith draw furthe the heade and if it cannot be drawnen furthe withoute greate hevines then better is to let yt remayn *within* For I haue known divers persons that haue lived many yeres *which* haue had Arrow heades and darte heades remanyng *within* them (f. 38v).

(7) Then pare awaye the pece of the pan so softelie as thowe cann then take the skyne and lay it to his place as it was at the begyninge, and sew yt to the vppermoste *perte* with a sharpe cnarelle nelde (f. 37r).

then first sewe the mowthes of the veines together with a small nelde and as thowe shalt saw the vnder syde haue alway a threde vnder the point of thy nelde to lift it vp therwith to haue thy nelde againe at any stiche (f. 46v).

Thus oughte thow to help theim Sew the skyn with a nedle and a threde and leve a litle hole open of the wounde vnsewid by the *which* the wounde maye purge furthe his matter (f. 55v).

(8) First vndo the skyn that the ballocks hingithe in and take out þe ballock then take a knife and cut the fleshe depe to thow come to the vtter skyn of the ballock stone and slaye it round aboute and cast awaie the fleshe therof (f. 65v)

then cut the skin of the bladder wher the stone lyethe with a knife and draw furthe the stone at the same hole (f. 67r)

(9) IT HAPPENITHE oft tymes the neck bone to be of ioint wherfore the necke standithe not right And if the patient be not holpen anone he shalbe deade, Therfore ley downe the patient wyde open and the surgeon also but the patient hede must be betwene the surgeon leggs in suche manner that the surgeon feet must stand vpon the patient shoulder and the surgeon shall take the patient by bothe the paires drawing the head to him warde with all his might to bring yt to his proper place againe (f. 54v).



First thow shalt make the patient to sit vpon his ars and cause a man to hould the same legg wherof the foote is out of ioint and thow shalt take the foote and draw it in again (f. 70v).

- (10) And if the wounde blede fast thow may draw nothinge furthe at that tyme But sew vp the wounde half and leve thother half open and strew theron pulvis rubens and bynde Clowte fast therto that it blede no more And vndo it not to þe thirde daye Then draw furth that wiche ought to be drawnen furthe at the open place of the wounde And after hele it as is abouesaide of other wounds (f. 46r).

The performance of these surgical operations required post-surgery care and, therefore, a treatment is provided. For the purpose, the text contains instructions to prepare diverse ointments and salves in order to heal wounds and repair the skin. These are rendered in two different ways depending on their popularity in the early Modern medical marketplace. On the one hand, when they were not known by many surgeons, the list of ingredients, together with the appropriate quantities and mode of preparation are given (11). On the other, when they were commonly used among surgeons, just their name is provided (12).

- (11) And when yt is brought into ioint , annointe yt afterward by the space of ix or x dayes with **dewti** which is callyd in latten **dealtea** And is thus mayd Take the roots of hock and the stick of theim pycked owt and casten away ij pounds of lyne sede fengreke of either j pound of the rootes of Squyllts half a pound First weshe clene the roots and stamp them with lyne sede and fengreke and the rootes of Sqilles also then ley it in viij pynts of water, iiijor daies together and On the iiij daie put them on the fyre And make yt boyle to it wax thik, and after strain yt through a strong canvas bagg all hote. And take of that which is straynd furthe ij pounds and put therto iiij pounds of meat oyle and make them boyle together to ther be nought seen of the iuce and then put therto a pounde of waxe and as muche butter as semithe to suffise and turpentine and galbanum and gume



of the yvie tre, of eche one of thees two vnces And at the last put powder of colophom and rosen of eche half a pound. And when all thes are molten together put them frome the fier And when it is could, put yt into boxes, and kepe to thy vse (f. 54v–55r).

- (12) and after take **pulvis affodile** and temp it with a litle hony and lay it vpon lyнет and fill the hole therwith and dight it so euery day twise vnto it be hole (f. 41r).

And when the mouthe is large ynough then annointe thy tent and withe **vnguentum ruptorium** and so continewe to the fistule be stayne and after heale yt vp with **Vnguentum viride** (f. 52r–52v).

then put in the hole a tent annointid with swynes greace vnto þe sore send furthe matter, and after tent yt with **vnguentum fustum** (f. 55r).

One of the advantages of the new surgical texts produced in early Modern England is that authors or surgeons were not limited to the knowledge transmitted to them by means of classical authors but, on the contrary, they carried out an empirical work leading them to learn from their own mistakes as well as to provide more effective treatments for diverse health conditions. For this reason, in H135 we find some excerpts describing the various complications that may arise when performing a particular surgical operation as well as the alternative treatment to be applied in such cases (13).

- (13) And if the shafte styck fast in the hede then must the wound be made larger besyde the shafte and a tent put in the depenes that yt maye touche the yron [...] And if it leave the head behynd then ax the patient how he stode whenn he was hurte that thow may take a sercher and serche the wound within like as the arrow went in (f. 38v).

And if anythinge of the cheke bone be cankered then paire awaye so muche as is cankered And if the teithe strike in the place where the bone is cankered, then pull them furthe and pare away all the



cankered place of the bone and after heale it with unguentum viride (f. 44v).

After the application of the treatment, the author may include an efficacy phrase that will guarantee the success of that particular surgical operation.¹⁶¹ These efficacy phrases could appear in two different formats, that is, they could just confirm that a treatment has been successfully tested (14) or, on the contrary, the author could come as a report of the outcome when applied to a particular patient (15).

- (14) **This powder is goode and preciouose to strange blode and to make consolidation and hole skyn aboue a wounde wherfore lay it aboue thy suing as I haue saide before** (f. 37v).

when it is colde put it into a glasithe which is a **preciouse Medicine for Webbe of eyen** (f. 41v–42r)

- (15) **For phisick saithe that it is possible a man to lyve without a milt then better he maie live with part of a mylt** (f. 62v)

In relation to the structure of the medical recipes in H135, five rhetorical moves are identified, where only the title and the ingredients are obligatory:

1. Title.
2. Ingredients.
3. Application.
4. Efficacy.
5. Practitioner's personal experience.

Different approaches have been made in the literature as to the structure of recipes and their components. Thus, Alonso-Almeida and Cabrera-Abreu distinguished among title, ingredients, preparation, application (use and dosage) and statement of efficacy (2002b: 138; Stannard 1982: 60–65). Hunt, in turn, listed six different

¹⁶¹ These efficacy phrases are similar to those found in the recipes, as explained below.



components: rubric, indication, composition, preparation, application, and statement of efficacy (1990: 16–24).

The title of the recipes (Stannard's purpose and Hunt's rubric) is found in different formats in H135, including the name of the condition that is going to be treated (16) or the ointment/medicine to be prepared (17), conditional clauses (18), non-finite clauses (19) or references to previous remedies dealing with the same condition (20).

- (16) **For the canker in the mowthe** taik sage and as muche of pimpernell [...] (f. 92r).
- (17) **A pretious water if thowe wilt vse it.** Take a handfull of weybrode one handfull of housleke . of rose meris Isope and sawge [...] (f. 75r).
- (18) For priking of a nedle pyne or thorne **if the hole be closid vp.** Take fair bultid flowre of wheat. temper it [...] (f. 81v).
- (19) **To maike a man slepe,** Take sede of lettuce and sethe it in running water and let him drinke therof last a night. (f. 78v).
- (20) **Another for the same** take a croppe of sage woormewood any herbe of grace any a hard onyon rosted half a penniworthe of triacle [...] (f. 85r).

In addition, there are recipes in which the title (taken as the purpose) is provided at the very end of the recipe, as in (21) and (22).

- (21) **and it is excellent good for any evill at the harte or in the stomach or in the lights** (f. 89v).
- (22) And distill all thes sotlye together in a lymbeck. kepe this water. close for yt will kyll. the kanker yf it be dalye weshed therwith (f. 74r).

The ingredients are provided in different ways in the medical recipes. Thus, in the best of cases ingredients are presented with quantities, preparation and application (23), even though the recipe may be deprived of the quantities or the

preparation, or both, thus assuming that the reader was acquainted enough with the quantities and mode of preparation of those ingredients (24). In the examples below, ingredients are highlighted in bold, preparation is underlined and application is italicised. As observed, (23) contains all the necessary information for the preparation of the medicine whereas (24) lacks the information about the quantities needed for the recipe.

- (23) For the dropsey take **ij gallons of Fyne ale and a porcion of green broome**, boile them to a gallon, *and let hym drinke no other drinke to be be hole* (f. 81v).¹⁶²
- (24) For swelling brussing or ache Take **leaves of the read Rose and viniger and cromes of the sowrest bread that thow can get**, braye yt together and maik yt plaister like *lay yt to the sore and yt shall sone be hole* (f. 82r).

Efficacy is included in the recipe by means of efficacy phrases, normally appearing at the end of the recipe (26) but also in the very title of it (27). These components are optional and, according to Mäkinen, they are “passages [...] that testify to the value of effectiveness of the end product: the medicine itself” (2011: 158).¹⁶³ Jones (1998: 201–204) distinguishes between specific phrases, which refer to the disease being treated (25); and stock phrases, which are formulaic expressions not referring to the disease (26, 27). Mäkinen added a third type, the general efficacy phrase, which does not refer to the disease in questions nor is formulaic (28) (2011: 162).

¹⁶² It must be noted that even though the quantities of the ingredients are provided, it is not clear what the writer intends to mean by writing ‘a porcion’. This makes it clear that the writer assumes that the reader of the recipe is going to be a person acquainted with the preparation of medicines and the handling of ingredients for their preparation.

¹⁶³ In this vein, it must be noted that these efficacy phrases do not constitute the result of any systematic test of the drug whatsoever, but they may have been transmitted from scholastic scholarly texts (Mäkinen 2011: 159).



- (25) For the ytche and scubb Taik swines greas pepper small beaten and quicksilver blend them well together vntill you Can se none of the quick_silver and that will heale a skald horse therfore I trow it healithe./ (f. 105r).
- (26) To slepe Taik humlocks Stampe them And lay them on your forheade frome eare to eare. **probatum est.** / (f. 87v).
- (27) For the megrim **an excellent practise** (f. 89v).
- (28) For swelling brussing or ache Take leaves of the read Rose and viniger and cromes of the sowrest bread that thow can get, braye yt together and maik yt plaister like lay yt to the sore **and yt shall sone be hole** (f. 82r).

When it comes to the credibility of a particular medical recipe, compilers would consider it in terms of the trustworthiness of the donor and his/her experience. Thus, the social, economical and political background of the donor would be assessed (Leong and Pennell 2007: 139). There were, however, other techniques to assure the efficacy of a recipe, as in (29), where the author tells the reader about a personal experience.

- (29) **ANOTHER PRACTISE which I haue vsid myself when I was lij years ould** I began to waxe feble and sluggishe like as I should haue bene oppressid streight way with age In so muche that my leggs were so faint and feble and all my bodie so shugg sluggishe namelie in somer and warme wether And also I had a distillacacion furthe of my head into my stomake and towards my longs or lights and my stomake not good and my meat so vnquist with me in so muche when I had eaten and drunken my meal at night my face would haue Glowid with the vnquietnes of the meate and my voice whors or harsh like as I had bene half dronken and humours oft falling into my eies which maid theim oft sore So that I did lyve looke to lyve and continew but few years Therfore I devised this remedie [...] and with the said six nesis euerie morninge I did get my bodie lustie



again And I giue almighty god thanks at the writing of this being
 lxxij yers ould I was lustie of my age as any was in the citie where
 I dwellid and far more lustie then I was at lij years when I begane
 with the sayde practise (ff. 88v-89v).

In this recipe, the author is telling the reader how he aided his own recovery after using this recipe, whose efficacy is demonstrated by the good condition of the author, who would live for more than twenty years ‘far more lustie then I was at lij (52) years when I began with the saydd practise’.

The analysis of text structure in both the surgical treatise and the collection of recipes has demonstrated that the former is more complex than the latter for several reasons. As shown in Table 5.4, both texts share some rhetorical moves, as the title or description of the problem, the efficacy phrase and the practitioner’s personal experience. However, there are some reasons supporting the higher complexity level of the surgical treatise as opposed to the recipe collection.

Surgical treatise	Recipe collection
1. Description of the problem	1. Title
2. Tokens of the disease/bad condition	2. Ingredients
3. Surgical operation	3. Application
4. Wound healing	4. Efficacy
5. Likely complications	5. Practitioner’s personal experience
6. Alternative wound healing	
7. Efficacy phrase	
8. Surgeon’s personal experience	

Table 5.4. Rhetorical moves in the texts in H135

First, the application of Swales’s (1990) *move analysis* has shown that the surgical treatise contains almost twice as many moves as the collection of recipes. This implies that the text structure of the surgical treatise is more elaborated, and therefore more complex, than that of the collection of recipes. This higher

number of moves makes the description of each surgical operation considerably longer than any of the medical recipes, requiring more processing on the part of the reader. In addition, the average number of rhetorical moves in the surgical treatise almost doubles that in the collection of medical recipes (5.5 and 3.6 respectively).

Second, the title of surgical operations (move 1: description of the problem) is often much more elaborated than the title of recipes, where only the name of the ailment is provided. This difference is perfectly understandable considering the different readership of these two different text types. On the one hand, surgical treatises were read by surgeons and barber surgeons, who were established in a kind of limbo between professional and amateur practitioners, hence the technical nature of these texts (detailed descriptions making use of anatomical terms, surgical instruments, etc.). Medical recipes, on the other hand, were distributed among lay people, who rarely had access to learned treatises but possessed a considerable knowledge on popular remedies, that is why the name of the ailment is enough for them to identify it.

Finally, the third reason has to do with the complexity of the texts, which undoubtedly has an effect on their different levels of linguistic complexity. The difficult performance of many of these surgical operations makes their explanations unpredictable in terms of their structure. Thus, whenever a surgical operation can pose a difficulty, that difficulty is described and an alternative wound healing is provided, making the instructions longer. In the case of the medical recipes, however, we have amateur remedies against common illnesses or bad health conditions, where the structure is totally predictable and only small aspects such as quantities or preparation can be missing.

5.3.1.2. Text layout

The present section evaluates the visual features of the texts in order to ascertain whether they contribute to the level of linguistic complexity.¹⁶⁴ The analysis of the text as an object includes script, colour, layout as well as tables of contents and running titles (Carroll et al. 2013: 55).

If we consider H135 as an object, it has already been mentioned that it contains three different indexes, which tell us about the different preferences of the people who owned the manuscript. After that, both the surgical treatise and the collection of recipes are similar in some aspects and different in others regarding the text layout.

Figure 5.1 shows the first folio of the surgical treatise. As shown, the title ('Liber Primus') appears in Latin and tells the reader that what begins is the first book. Interestingly enough, it is easily appreciated as the title is rendered with a larger, more elaborated script than the running text, catching the attention of the reader.¹⁶⁵ In the same way, at the end of every book there is a similar text indicating the conclusion of that book.

¹⁶⁴ Among the factors that could interfere with the visual aspect of the page, the most important were time and money available, the producers' expertise, the technology used and the material employed (Partridge 2011).

¹⁶⁵ See Chapter 2, Section 2.3.1.2 for an account of these instances of elaborated script.



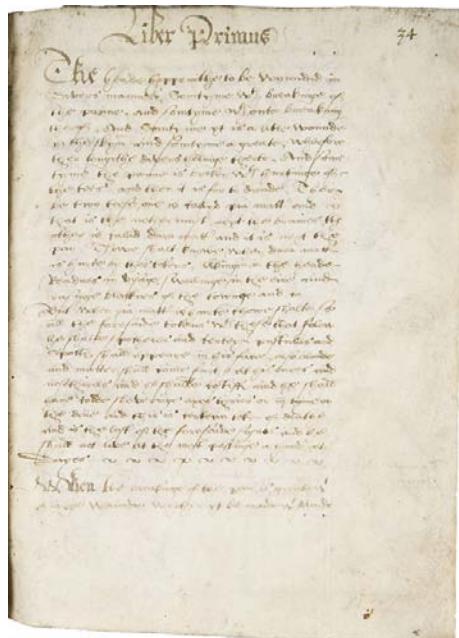


Fig. 5.1. f. 34r



Fig. 5.2. f. 45v

In addition, there is a small space between one surgical operation and the other, where the first words are also highlighted.¹⁶⁶ Even though the different sections are signalled by way of spacing and a bigger script, it is often difficult to identify quickly what is written in those sections, as there is usually no clear title allowing the reader to look for the desired excerpt. A clear example is Figure 5.2, where we see the beginning of a paragraph in which the words ‘Oft tymes’ are highlighted, but no information about the topic being commented is offered. This clearly implies a greater effort on the part of the reader in order to get the message of the text, hence increasing the level of linguistic complexity.

In order to overcome this difficulty, later owners of the manuscript added marginalia in order to clarify this making the manuscript easier to use. Figures 5.3 and 5.4 are an example of this, where a clear and concise title has been inserted

¹⁶⁶ Note that the highlighting of the first words of each section is not systematic, as there are many sections where it is not carried out.

in the margins so that the reader can easily navigate through the folios of the manuscript in search of a particular section.¹⁶⁷

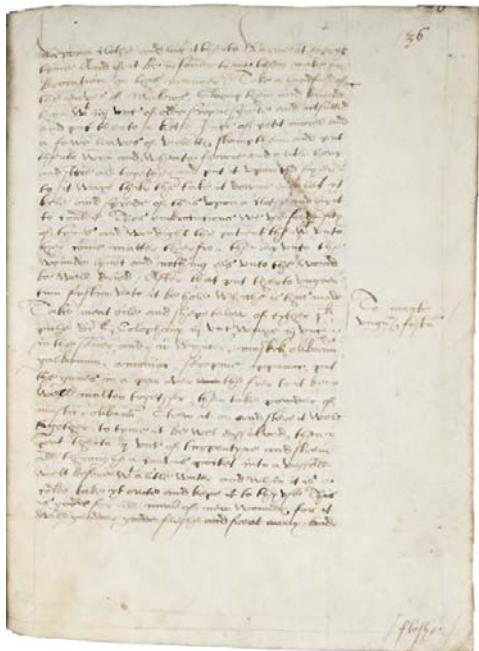


Fig. 5.3. f. 36r

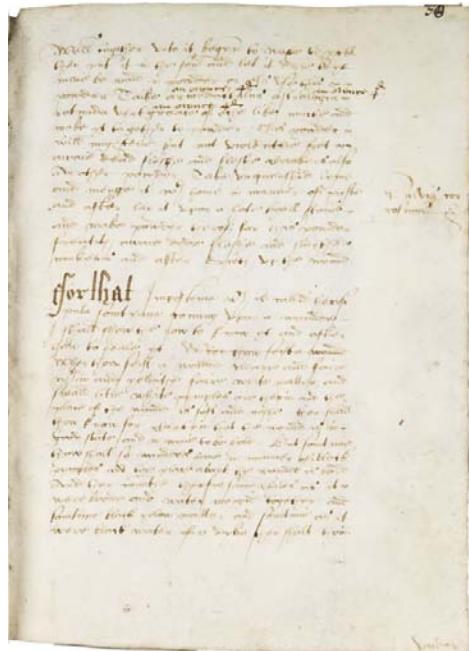


Fig. 5.4. f. 58r

This practice is also found in the visual layout of the collection of recipes, although these are introduced by a short preface foretelling the content of what comes after (Figure 5.5). The text is rendered with an elaborated script which allows the reader to differentiate it from the running text, from which it is also well separated.¹⁶⁸ Prefaces have been defined by Genette as “every type of introductory (preludial or postludial) text, authorial or allographic, consisting of a discourse produced on the subject of the text that follows or precedes it” (1997: 161). In fact, the existence of this preface eases the understanding of the text, as

¹⁶⁷ As observed, the marginalia inserted in Figures 5.2, 5.3 and 5.4 are rendered with Hands C, A and B, respectively, pointing to the fact that each of the owners of the manuscript would add what they considered necessary for the correct use of the manuscript.

¹⁶⁸ According to Genette, “it is these particular features what makes turn these excerpts from text into paratext” (1997: 162).

the reader is informed of the content in just a few lines, lowering the level of linguistic complexity.

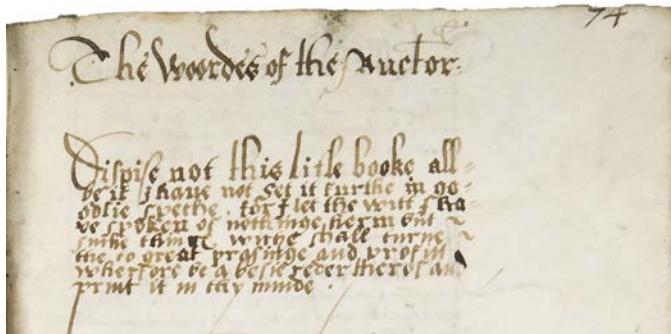


Fig. 5.5. Preface in the recipe collection (f. 74r)

Regarding the structuring of the recipes, these are separated by a space, making them quickly identifiable in the page. Moreover, the title of the recipe may appear in three different positions: 1) in a separate, centred line before the recipe (Figure 5.6); 2) with an elaborated script that is part of the recipe (Figure 5.7); and 3) in the marginalia (Figure 5.8).¹⁶⁹ Of these, the most common title is 2), while 1) and 3) appear marginally with just 15 and 38 instances, respectively. The different rendering of titles suggests that the scribe did not care much about their position or significance in the page, being just limited to copying the recipes as they appeared in the source text.

¹⁶⁹ It must be noted that these titles in the marginalia are made by Hand A, meaning that they were intended to be there since the creation of the volume. There are other instances, however, that have been added by later hands.

Fig. 5.6. f. 75r

87

Gold, Sennetts, Champagnes and such like
are indeed of great value & profit and a
few Dumbells & dumb bells need not to
be better than one of them by far the
best people. Or take a piece of muslin
about six inches square or your self and tie
a platter full of very good
provisions.

For setting or scabbing of the two last
years affilgates and such like in an Acre
or garden etc. Break up most of the earth and lay
them in a flat place & strew a few
leaves over them and then lay them on them
and then lay them on them and then
make a hole about a yard round & 25
feet wide, break off the top of it & lay a whitish
table cloth of white in the middle of the earth
and lay a mattock & a staff and a long
and broad scythe & a small box of good
soil and then lay a few stones around the
edge of the hole. Then lay the good soil
first in the bottom of the hole and then
make a hole about a yard wide and then
lay the best part of the earth upon the
hole bed.

To cause a sore to rotte take milk
and lay it upon the sore & then lay a
coughle unto it by a plaster who doth say it

Fig. 5.7. f. 87r

and flete, and other condiments of
the like, as it may be of meat, veal,
pork, and flete, and other
cater for the present, and night
and upon such as will be had
according to the receipt, and
was received from Dr. B., and written
in my true common book, 1515.
morning and evening.

To make leath
out of skin

Take marmalade
and set it down in great quantity, and let
it stand over night and the next day, and in such
place as a medicament tincture.

Cold sores

Take leath and stamp it and lay
it upon the swelling cold, and
immediately it will assuage the
swelling, and tynge is sufficient to
procure.

for the girding
of women etc

Take marmalade cream and staine it with
the juice of Rose and lay it upon
her except right or underneath of
her nose where it will keep
soft and pliable.

Doping
color and
furnace

Take small morsells of redcandy, and
set them in patient matter, and
set them off in it after it quicke
/ Oregon

Fig. 5.8. f. 117v

Once the text layout in the surgical text and the collection of remedies has been described, it is observed that the former is more complex than the latter for some reasons. First, the surgical treatise lacks a prologue or introductory note that explains the content of what follows, the reader starting the text with no knowledge of the topic whatsoever. The recipe collection, in turn, does contain a short preface that explains its contents. Second, paragraphs are considerably longer in the surgical treatise, hence the need of more time to process the information on the part of the reader. Finally, as for the title of the surgical operations and the remedies, the former have been observed to be less specific than the latter, and this makes it more complicated to search for different excerpts in the text.

5.3.2. Microlinguistic factors

The present section focuses on the frequency of a set of linguistic features associated with linguistic complexity (see Table 5.3). For the purpose, Section 5.3.2.1 explains the methodology followed to carry out such an analysis; Section 5.3.2.2 analyses the linguistic features associated with reduced linguistic complexity; and Section 5.3.2.3 deals with the linguistic features associated with increased linguistic complexity.

5.3.2.1. Methodology

From a methodological standpoint, three different stages could be distinguished. First, the manuscript was transcribed following semi-diplomatic conventions. For the purpose, high-resolution images of the manuscript were used and, in order to decipher the script in some damaged folios, the original witness was examined *in situ* at Glasgow University Library (see Chapter 3 for the editorial conventions). Second, the early Modern English spelling of the transcribed text was normalised to PDE so that a PDE automatic POS-tagger could process it. This allowed us to POS-tag the text in order to make automatic searches and retrieve linguistic information (for an account of the process, see Chapter 4). Finally, the POS-



tagged text was used as the input to assess the frequency of linguistic features that are associated with linguistic complexity.¹⁷⁰ However, these automatic searches required a manual post-editing phase so as to discard all those instances beyond the scope of the present research. Finally, the results were normalised to tokens per 1,000 words for the sake of comparison.¹⁷¹

5.3.2.2. Linguistic features associated with reduced complexity

As stated in section 5.1, Biber (1992: 140) identified six linguistic features belonging to three discourse functions related with reduced complexity (Table 5.2): structural reduction, less specified reference and fragmented structure. It must be noted that some of the linguistic features mentioned by Biber (1992) have not been found in our material, either because they are not characteristic of these text types or because they were rarely used (or not used at all) in the early Modern English period. Consequently, only the features related with less specified reference and fragmented structure were retrieved.

5.3.2.2.1. Less specified reference

The linguistic features related to less specified reference are Pro-verb *Do* (20), pronoun *it* (21) and the use of demonstrative pronouns (22) (Biber 1992: 140):

- (30) make a greate shorte tente wett with the same and put in the nose **do**
so euery daye to it be hole (surgical treatise, f. 43r).

then put therin a lynnен clothe and lay it hote to the papp and **do** so
often (medical recipes, f. 102r).
- (31) And when **it** beginnithe to cole in the water , then knede **yt** betwixte
thy hande (surgical treatise, f. 35r).

¹⁷⁰ These automatic searches were made by way of *AntConc 3.4.4* (Anthony 2014).

¹⁷¹ According to Biber, “individual texts can be compared in terms of their dimension scores, and registers can be compared in terms of their mean dimension scores” (1992: 150).

Sturr **it** vnto thow can see none of the quick sylver (medical recipes, f. 87r).

- (32) menge **thes** alltogether and make therof a powder which powder menge with the foresayde licour (surgical treatise, f. 35r).¹⁷²

Seithe **those** together and meddle them with holie water and drink it first and last thre daies (medical recipes, f. 87r).

Pro-forms (20) are expressions used for “recapitulating or anticipating the content of a neighbouring expression, often with the effect of reducing grammatical complexity”, facilitating sentence connection (Quirk et al. 1985: 76). In the particular case of *do*, it originated in Middle English, when it could be used for the replacement of a lexical verb used in the preceding clause (Fischer 1992: 268). This substitution can be a verb phrase as well as a verb phrase and all that comes after it, thus “reducing the informational density of a text and indicating a lesser informational focus” (Biber 1989: 226).¹⁷³ Furthermore, recent research on register variation has demonstrated that these structures are commonly used in face-to-face communication, as speakers share the situational context and have the possibility to clarify the message immediately (Biber et al. 1999: 432). As shown in the examples, pro-verb *do* is used to refer to a whole previous explanation, allowing the reader to save time in processing the intended message.

The use of the pronoun *it* is the second linguistic indicator associated with less specified reference. The third person pronoun is different from the others as it is characteristically used in anaphoric expressions, while the others are generally

¹⁷² Even though the words ‘these’ and ‘those’ are acting as pronouns, CLAWS tags them as plural determiners (DD2), as the software lacks a tag for this use. In order to retrieve the instances with a pronominal function, all determiners were retrieved and they were subsequently classified so that only the pronouns are included in the counting.

¹⁷³ According to Biber, this is the result of “processing constraints or a higher concern with interpersonal matters” (1989: 226). In addition, Huddleston and Pullum argue that, when combined with *so*, it is slightly more formal than when standing alone (2002: 1529).



used deictically (Lass 1992: 147–148; Huddleston and Pullum 2002: 1468).¹⁷⁴ It can refer to nouns, phrases and whole clauses when the parts of speech to which it refers can be easily identifiable by means of the surrounding context or when it is unknown or general (Biber et al. 1999: 70). Chafe and Danielewicz associate this lack of referential splictness to the spoken register as speakers have usually limited time to produce the utterances, hence the use of neuter pronouns such as *it*, increasing the vagueness of the text but at the same time boosts the production (1986: 90; see also Biber 1986).¹⁷⁵

The third linguistic indicator is the use of demonstrative pronouns that, according to Biber, can “refer to an entity outside the text, an exophoric referent, or to a previous referent in the text” (Biber 1989: 226; see also Huddleston and Pullum 2002: 1504–1509), that is, they may be used deictically or anaphorically. In the texts analysed in the present study, only anaphoric uses are witnessed, as we are dealing with a written source.

Table 5.5 shows the distribution of these three linguistic indicators of less specified reference. As observed, they are more widely distributed in medical recipes as opposed to the surgical treatise. This is understandable if the particular features of each text type are taken into account. Even though surgical treatises were becoming independent of the classical texts on which they were based (i.e.

¹⁷⁴ Deixis occurs when the reference of a given expression is determined by the utterance-act (time, place, etc.), i.e. *I bought a new stereo system yesterday*. Anaphora, in turn, occurs when the reference of a given expression is determined via an antecedent, i.e. *Max claims he wasn't told about it* (Huddleston and Pullum 2002: 1451–1453).

¹⁷⁵ Chafe and Danielewicz also argue that “the antecedent of a pronoun has been spelled out in an earlier noun phrase. Sometimes, however, and specially in speaking, there is no such clear antecedent” (1986: 90). The reason for the non-existence of the antecedent lies in the fact that, by way of sharing the situational context, speakers can make their message clear at any moment. When writing, on the contrary, the writer has to make sure he/she includes all the referential information so that the reader does not get lost.



empiricism vs. scholasticism), they still preserve the structural conventions of its text type. Recipes, on the contrary, were read and produced by lay people, thus featuring a language resembling the spoken register (face-to face conversations to name but one). This is supported by the wider distribution of pro-verb *do*, pronoun *it* and demonstrative pronouns in the medical recipes (*n.f.* 0.6, 40.3 and 4.9 over 0.4, 29.8 and 2.8, respectively).¹⁷⁶

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Pro-verb Do	7	0.4	11	0.6
Pronoun It	572	29.8	784	40.3
Demonstrative pronouns	54	2.8	95	4.9
Total	633	33	890	45.8

Table 5.5. Less specified reference in H135

5.3.2.2.2. Fragmented structure

The level of fragmented structure is quantified by means of the frequency of clausal coordination in the texts (Biber 1992:140). Coordination represents syntactic arrangement by parataxis, where equal clauses with the same syntactic role are combined (Quirk et al. 1985: 918; Biber, Connor and Upton 2007: 79). In Chafe (1982: 38), fragmentation is identified with the agglutination of idea units without connectives, although it is also argued that new idea units¹⁷⁷ are frequently introduced with coordinating conjunctions, *and* being the most frequent.

Biber et al. (1999: 144–145) links coordination to orality (i.e. conversations) and subordination to literacy (i.e. research articles), a fact that can be as well supported from a diachronic point of view. Thus, Kohnen

¹⁷⁶ In this table and the following ones, *n.f.* stands for ‘normalized frequencies’.

¹⁷⁷ Idea units are “spontaneous, unplanned spoken language [...] produced in a series of spurts” (Chafe 1985: 106).

carried out an analysis of the distribution of coordinators and subordinators in Middle and early Modern English sermons. According to this study, the distribution of coordinators decreases in the early Modern English period, a fact coinciding with a spread of subordinators (2007: 294).¹⁷⁸ The reasons for such a pattern change lie in the fact that literacy increased in the early Modern English period, hence the wider distribution of mechanisms related to written registers (i.e. subordination). In addition, there is corpus evidence supporting that, between the seventeenth century and today, “medical, science and legal prose developed to become highly specialised registers [evolving] towards ever more ‘literate’ styles” (Biber and Finegan 1997: 269).

- (33) Withe dewte **and** spelte it againe **and** so euerie daie once vnto viij
daies be passid **and** thenn by the grace of god he shalbe hole (surgical
treatise, f. 57r).

but thou had nede to sow those vpon a bed in thy garden **and** then
remove them the first or second year there thou wilt haue them
(medical recipes, f. 111v).

As shown in Table 5.6, clausal coordination is more widely distributed in recipes as opposed to the surgical treatise. The reasons for such a distribution could be explained from the perspective of text structure, as the recipes exclusively contain instructions for the preparation of remedies, where the coordinator *and* is frequently used to link the different steps within the recipe. Thus, if this is taken into account to measure linguistic complexity, medical recipes are less complex inasmuch as clausal coordination is more widely distributed.

¹⁷⁸ Kohnen argues that “the decline of coordinators may indicate a change from the ‘rumbling’ or ‘additive’ style noted by many scholars in late Middle English sermons and homilies to more structured and elaborate patterns of presentation in early Modern English” (2007: 294).



Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Clause coordination	107	5.6	166	8.5

Table 5.6. Fragmented structure in H135¹⁷⁹

5.3.2.3. Linguistic features associated with increased complexity

The linguistic features associated to complexity amount up to 27, which are classified into four different groups: 1) integrated structure; 2) lexical specificity; 3) passive constructions; and 4) dependent clauses.

5.3.2.3.1. Integrated structure

The level of integrated structured is calculated by way of the frequency of nouns, prepositions, attributive adjectives, nominalizations and phrasal coordination. These constituents indicate a “high informational focus and a relatively dense integration of information in a text” (Biber 1992: 145).¹⁸⁰

The frequency of nouns in different registers was approached by Biber et al., who demonstrated that they are by far the most frequent lexical word class, being the most common in news and, to a lesser extent, academic prose (1999: 65–66; see also Huddleston and Pullum 2002: 526).¹⁸¹ This distribution is understandable as the focus in these text types is on the transmission of information. In the case of the analysis that concerns us in the present section, it

¹⁷⁹ Previous studies (i.e. Meurman-Solin 2007: 255–288) recommend the inclusion of a wide range of connecting devices in order to carry out a proper analysis of clausal coordination. In the present study, however, this analysis has been restricted to the distribution of coordinator *and*, as other coordinators occurred marginally.

¹⁸⁰ Discourse with informational purposes has been associated with carefully planned utterances (Biber 1988: 79–97).

¹⁸¹ It was found that in news reports and academic prose, there are three to four nouns per lexical verb. In conversations, however, nouns present a low frequency that signals a lower density of information and coincides with a higher frequency of pronouns (Biber et al. 1999: 65–66).



is observed that the frequency of nouns is somewhat balanced in both text types, being slightly higher in the recipes. Even though surgical treatises are considered to be academic material, recipes (i.e. a more informal register *a priori*) show a higher frequency of nouns (*n.f.* 31.2 over 29.5), a fact that is not surprising as they consist of long lists of plants and substances needed to prepare remedies.

Adjectives may be defined as “a syntactically distinct class of words whose most characteristic function is to modify nouns” (Huddleston and Pullum 2002: 527). When it comes to linguistic complexity, attributive adjectives have been found to have an influence, as they are “highly integrative in their function”, expanding and elaborating the information presented in a text (Biber 1989: 237). Regarding their occurrence across different registers, they have been found to occur more frequently in academic prose, contrasting with their low frequency in conversation (Biber et al. 1999: 65).¹⁸² As observed in Table 5.7, the occurrence of adjectives is significantly lower if compared with nouns. The reasons for such a distribution could lie in the fact that, even though both text types contain a high proportion of nouns, the scribe did not consider adjectival complementation necessary on many occasions, not increasing the linguistic complexity.

Prepositions have also been included for measuring the level of integrated structure of texts. These are words that “govern, and normally precede, a noun or pronoun and which express the latter’s relation to another word” (Huddleston and Pullum 2002: 600; see also Biber et al. 1999: 70; Yáñez-Bouza 2015: 1–11). With reference to their functions in discourse, prepositions have been found to expand the information contained in an idea unit. When it comes to the use of prepositions in the texts under analysis, it is witnessed that they occur more widely in the surgical treatise (*n.f.* 165.7). This indicates that they present a higher

¹⁸² According to Biber et al., “the greater frequency of adjectives in the written registers, especially in an attributive role, reflects the heavy reliance in noun phrases to present information” (1999: 506).

level of linguistic complexity, as early Modern English surgical treatises often combine elements belonging to the learned tradition as well as their own experiences.¹⁸³ This leads to a text type which is full of descriptions and advice, together with instructions for the preparation of remedies, and this use of preposition certainly helps arrange this kind of information.

Nominalizations have been traditionally considered a distinctive feature of scientific writing, where they allow for the packing of information and the expansion of units (Biber 1988: 227; Banks 2001, 2003, 2005; Bello 2016). As Halliday points out, this was a significant feature of the scientific writings produced in the seventeenth century,

Thus, the device of nominalizing, far from being an arbitrary or ritualistic feature, is an essential resource for constructing scientific discourse. We see it emerging in the language of this period, when foundations of an effective register for codifying, transmitting and extending the ‘new learning’ are rapidly being laid down (1988: 169).

Nominalizations have been found to serve three purposes: two grammatical and one semantic. In the grammatical side, on the one hand, nominalizations allow for the addition of modifiers and quantifiers to the nominalized process (i.e. *the government announced new benefits* vs. *the government’s announcement of new benefits*); as well as the use of the nominalized process as subject, complement, etc. (i.e. *the announcement was put off* vs. *we did not hear the announcement*). In the semantic side, on the other, the process becomes more ‘thing-like’ after the nominalization (Banks 2005: 350). In H135, nominalizations show different distributions in the two text types under analysis. Thus, they occur more widely in the surgical treatise than in the collection of recipes (*n.f.* 165.7 over 103.2,

¹⁸³ In his categorization of English text types, Biber (1986) found that prepositions are frequently witnessed in combination with nominalizations and passives in academic prose, official documents, professional letters and other informational types of written discourse.

respectively). This means that in the surgical treatise the information is better integrated and packed and, consequently, the level of linguistic complexity is higher.

Phrasal coordination is the last feature associated with integrated structure, where it is found to serve the expansion of idea units, as observed in (34) (Biber 1988: 245; see also Chafe 1982, 1985). In this vein, the surgical treatise is again more complex than the collection of recipes, as phrasal coordination is more widely attested (*n.f.* 61.8 over 42.4, respectively).

- (34) the pen may thrust downe the fleshe vpon the neld and thow must
thrust **boldly and hard** for thow shalt perceve it to require a greate
thrust (surgical treatise, f. 38r).

then put to yt soome cornes of **salt and a lytill commyn** cut small and
mynced (medical recipes, f. 118r).

To sum up, the present section has evaluated five different linguistic features identified as markers of integrated structure, where different tendencies have been observed. First, the distribution of nouns and attributive adjectives is somewhat balanced in both text types, even though the surgical text was expected to show a wider distribution of these items, being a more academic piece of writing. However, the long list of ingredients contained in many of the medical recipes has plausibly levelled the distribution of nouns and attributive adjectives in both text types. Second, nominalizations are slightly higher in the surgical treatise, although it must be noted that their distribution in the medical recipes has been higher than expected. Third, the distribution of prepositions and phrasal coordination is overwhelmingly higher in the surgical treatise, evincing a more elaborated structure of this text type.



Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Nouns	4,126	214.9	4,344	223.5
Prepositions	3,182	165.7	2,006	103.2
Attributive adjectives	567	29.5	607	31.2
Nominalizations	121	6.3	86	4.4
Phrasal coordination	1,186	61.8	823	42.4
Total	9,182	478.2	7,866	404.7

Table 5.7. Integrated structure in H135

5.3.2.3.2. Lexical specificity

Word length and type/token ratio are indicators of lexical specificity, indicating “potential and actual lexical variety”, respectively (Finegan and Biber 2001: 258). From a register perspective, high levels of lexical variety are usually found in academic writing, being more restricted in the spoken domain due to the time requirements of on-line production (Biber 1988: 238; see also Biber 1986; Chafe and Denielewicz 1986). Table 5.8 shows the scores of mean word length and type/token ratio in the texts under study, where it is found that potential lexical variety, i.e. word length, is operating roughly at the same levels in the surgical text and the collection of recipes (4.06 and 3.96, respectively). However, when it comes to lexical variety, i.e. type/token ratio, the collection of recipes shows a higher figure if compared to the surgical treatise (11.2 over 9.5). This could be explained if the particular characteristics of each text type are considered. Thus, recipes feature more lexical variety as they include long lists of ingredients that are necessary for the preparation of remedies (see 5.3.2.3.1 above for a similar phenomenon).

Linguistic features	Surgical treatise	Medical recipes
Mean word length ¹⁸⁴	4.06	3.96
Type/token ratio	9.5	11.2

Table 5.8. Lexical specificity in H135¹⁸⁵

5.3.2.3.3. Passive constructions

Passive constructions are mechanisms that allow for information packaging,¹⁸⁶ where the subject is associated with a patient role, receiving the action of the verb. In this kind of constructions, the subject is “demoted or dropped altogether, resulting in a static, more abstract presentation of information” (Biber 1988: 228; Huddleston and Pullum 2002: 1365; Toyota 2005: 319). This has traditionally been identified as characteristic of the scientific register, together with the use of static verbs and impersonal constructions (Dorgeloh 2005: 85; see also Atkinson 1996: 340–346).¹⁸⁷ Thus, these contribute to linguistic complexity inasmuch as they are the surface complex representation of a simpler counterpart with the same meaning. In H135, instances of agentless passives (34) and *by*-passives (35) have been found.

- (34) then ax the patient how he stode whenn **he was hurte** that thow may take a sercher and serche the wound within (surgical treatise, f. 38v).

This is provid often tyme for truthe (medical recipes, f. 96v).

¹⁸⁴ The calculations of word length have been carried out in *WordSmith* 7 (Scott 2017).

¹⁸⁵ Note that these figures have not been normalised, as they are individual counts of each text under study.

¹⁸⁶ Information packaging structures have usually a “syntactically more basic counterpart differing not in truth conditions or illocutionary meaning but in the way the informational content is presented” (Huddleston and Pullum 2002: 1365).

¹⁸⁷ Academic writing is the register with the highest frequency of passive constructions, occurring about 12,000 times per million words (Biber et al. 1999: 476).



- (35) SOMETYME The heedes of the cheke bones are out of their ionte
which is knowne by thes tokenes (surgical treatise, f. 44r).

This medcyne was highelie prasid by the phisician that practisid the same seing he could never see any so good (medical recipes, f. 75r).

As shown in Table 5.9, agentless and *by*-passives occur more than twice as many times in the surgical treatise as in the collection of recipes (*n.f.* 15.6 over 5.9 and 0.6 over 0.1, respectively). This demonstrates that the former presents a more complex information structure than the latter,¹⁸⁸ as passives, being a more elaborated version of an utterance, require more processing effort on the part of the reader. In addition, passives make the focus shift from the subject to the object, a typical feature of academic writing.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Agentless passives	299	15.6	115	5.9
By-passives	11	0.6	2	0.1
Total	310	16.2	117	6

Table 5.9. Passive constructions in H135¹⁸⁹

5.3.2.3.4. Dependent clauses

The frequency of embedded or dependent clauses also contributes to the increase of linguistic complexity. Depending on their nature, these may accomplish different functions in discourse and, therefore, they have been subdivided into

¹⁸⁸ According to Lambrecht, “information-structure analysis is centered on the comparison of semantically equivalent but formally and pragmatically divergent sentence-pairs, such as active vs. passive” (1994: 6; see also Seoane 2012).

¹⁸⁹ Agentless passives and *by*-passives have been also labelled as short passives and long passives, respectively (Biber et al. 1999: 475).

structural elaboration on reference, complement clauses, attitudinal clauses, adverbial clauses and participial clauses.¹⁹⁰

5.3.2.3.4.1. Structural elaboration on reference

The structural elaboration on referent is measured by means of the frequency of different instances of relatives (see Table 5.10). Relatives are finite post-modifying clauses that allow for the addition of new information about the antecedent (Biber et al. 1999: 195; Hundt, Denison and Schneider 2012: 210). According to Biber and Conrad, these structures are devoted to explain and expose information, and they are certainly “complex syntactic constructions, difficult to produce in real-time situations, but well-suited to the focused informational purposes of textbooks” (2009: 67).¹⁹¹

Five different constructions have been taken into account in the present study: *wh*-clauses in subject position, *wh*-clauses in object position, “pied piping” relative clauses, *that* relative clauses in subject position and *that* relative clauses in object position. In our data, only the last three constructions have been found, whose frequencies are represented in Table 5.10.

“Pied piping” relative clauses (36) are constructions where the linking relative appears together with a preposition (*on which* / *after which*), making reference to a noun in the main clause (*eer* / *space*). These constructions are employed to expand the information given to the reader, the relative clause adding information about the antecedent. In our data, these constructions occur more than twice as many times in the surgical treatise as in the collection of recipes (*n.f.* 0.6 over 0.2, respectively), meaning that the former feature a more

¹⁹⁰ No instance of attitudinal clause was found in our data, hence the impossibility of its analysis.

¹⁹¹ Chafe (1982, 1985) has also identified these structures as devices for integration and idea unit expansion.



information-oriented structure and, therefore, a higher level of syntactic complexity.

- (36) Then streyne yt through a clothe and put of this oyle euery daye
warne ones into the sonne eer, **on whiche** syde the waxe kyrnells
bredithe (surgical treatise, f. 51r).

then by a convenient space **after which** may be as I suppose thre or
iiij^{or} howres gyve him this powder folowing (medical recipes, ff. 84r–
85v).

The occurrence of relative clauses in subject (37) and object (38) position also contributes to a high level of syntactic complexity. These structures have the same functions as (36): the expansion of idea units. Thus, these mechanisms serve to incorporate extra information to the text. In our data, *that* relative clauses in subject position show a slightly higher occurrence in the medical recipes as opposed to the surgical treatise (*n.f.* 1.7 over 1.2, respectively). The distribution of *that* relative clauses in object position, in turn, are more widely found in the surgical treatise than in the medical recipes (*n.f.* 2.1 vs. 1.3, respectively).

- (37) when pia matter is hurte thowe shalte se all the foresaide tokenes with
those **that** folow he shalbe specheles and certeyn pustules and spotts
shall appeare in his face (surgical treatise, f. 34r).

TO KILL A RINGE WORME SCABBE crewlls or any suche other
prowde felon **that** yekethe and waterithe (medical recipes, f. 74v).

- (38) then shalt thou first cut the vttermost skyne on crose wise and the
hole gobbet **that** thow fyndest therin (surgical treatise, f. 41r).

Take leaves of the read Rose and viniger and cromes of the sowrest
bread **that** thow can get (medical recipes, f. 82r).

The quantitative analysis of these three linguistic features evinces that the surgical treatise shows a more complex structural elaboration on reference. Even though the medical recipes show a wider distribution of *that* relative clauses in subject



position, the counting of the three linguistic features together demonstrates that the surgical treatise is linguistically more complex with regard to structural elaboration on reference.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Wh-relative clauses in subject position	-	-	-	-
Wh-relative clauses in object position	-	-	-	-
“Pied piping” relative clauses	11	0.6	4	0.2
That relative clauses in subject position	23	1.2	33	1.7
That relative clauses in object position	40	2.1	26	1.3
Total	74	3.9	63	3.2

Table 5.10. Structural elaboration on reference in H135

5.3.2.3.4.2. Complement clauses

Complement clauses are “a type of dependent clause used to complete the meaning relationship of an associated verb or adjective in a higher clause” (Biber et al. 1999: 658).¹⁹² There are various kinds of complement clauses with different purposes: *wh*-clauses can express an indirect question (*wh*-interrogative clause, i.e. *Jill was asking what happened*) or a relative clause (nominal relative clause, i.e. *Burbridge road is where Carlos used to live*); *that*-clauses are employed to report the speech, thoughts, attitudes, or emotions of humans (i.e. *I think Stuart’s gone a bit mad*); and infinitive clauses can report speech and cognitive states (i.e. *I’m just trying to get away early*) (Biber et al. 1999: 657–697).

¹⁹² Huddleston and Pullum label them as “expanded declaratives” or *that*-declaratives. When complementizer *that* is omitted, they label them “bare declaratives” (2002: 951). For a study on the alternance of *that* and *zero* in early English medical writing (1350–1700), see Calle-Martín and Romero-Barranco (2014).

- (39) and somtime black yellow matter and sometime as it were black water of a dybe then shalt thou Vnderstand **that** the wound is appostemid (surgical treatise, ff. 58r–58v).

but the more bread and vinager thou casts in the febler is the plaster I Counsell **that** thowe set muche by this plaster for it hath bene ofte proved but lay it not to all Sores (medical recipes, f. 96v).

- (40) And if it be so depe **that** the larde cannot reche the Bottome Then take a tent of lynn clothe and anoynt it aboute with swynes grece (surgical treatise, f. 38v).

And therfore the patient when his lights have lyen ydle so long **that** nature can suffer no longer then for want of breathe (medical recipes, f. 88r).

- (41) And thowe may take a goose pen beyng open at the end **to thrust** again the neld poynt vpon the skyne syde so that the neld may enter into the pen (surgical treatise, f. 37v).

Put this water into a glasse and kepe it for yt is a verie good water **to washe** therwith any sore and namelie a sore legg and will heale yt without any other salve (medical recipes, f. 75v).

As for the functions of these clauses at discourse level and their influence on linguistic complexity, these have been identified as mechanisms which allow for integration and idea unit expansion (Biber 1988: 231; Chafe 1982, 1985). Furthermore, these devices are more prone to be witnessed in planned written registers.¹⁹³ As shown in Table 5.11, the surgical treatise outnumbers the collection of recipes in the frequency of these complexity features, which are indicators of planned and elaborated discourse.

¹⁹³ Note that *wh*-clauses have not been found in our data.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
<i>Wh</i> clauses		-		-
<i>That</i> complement clauses to verbs	12	0.6	3	0.2
<i>That</i> complement clauses to adjectives	9	0.5	5	0.3
Infinitives	384	20	332	17.1 ¹⁹⁴
Total	405	21.1	340	17.6

Table 5.11. Complement clauses in H135

5.3.2.3.4.3. Adverbial clauses

Adverbial clauses also add information to main clauses, and they do so in the manner of adjunct or disjunct. While the former denotes circumstances of the situation in the main clause, the latter informs about the style or form of what is said in the main clause. There are various subclasses of adverbial clauses ranging from condition or reason/cause to concession, among others (Quirk et al. 1985: 1070–1118).¹⁹⁵ These three kinds of adverbial clauses, together with a general category including all the others, were identified by Biber (1988: 235–236) as potential indicators of linguistic complexity.¹⁹⁶

Adverbial clauses of condition express direct condition, that is, what is being said in the main clause is conditioning what is being expressed in the

¹⁹⁴ The number of infinitive clauses in the collection of recipes was originally higher, as these appeared in the title of the recipes. In order to make this analysis as accurate as possible, these were calculated finding that, after having discarded them, the infinitive clauses in the collection of recipes amounted up to just n.f. 17.1.

¹⁹⁵ Conditional clauses are found to be most common in conversation, and moderately common in academic writing; cause clauses in conversation; and concessive clauses in written registers (Biber et al. 1999: 820–821).

¹⁹⁶ Biber et al. (1999: 776) label these contingency adverbials under the category of circumstance adverbials. Other circumstance adverbials are those expressing, time, place, process, extent/degree or addition/restriction, among others.



subordinate clause (i.e. *If you don't study, you won't pass the exam*). In medical writing, these clauses may describe a physical state with a subsequent specific treatment (42), or the quantity of produced medicine if a series of steps are followed (43). From a quantitative point of view, these sentences are more frequently found in the collection of recipes (*n.f.* 16.2 over 14.9). This distribution is possible because *if*-clauses are one of the devices used for the introduction of recipes, in which a condition is described, and then the treatment is offered. This same structure is also observed in the surgical treatise, but it occurs more widely in the collection of recipes.

- (42) IF THE Throte be wounded and the wesand or throte bole partid in what manner so euer it be medle not therwith for it is deathe (surgical treatise, f. 47r).

This will cause abowt vj stooles And **if** thow bidde the poticaire to quiken it well with diagredion it will cause viij or ix. And the dooble receat will cause dooble so many stooles (medical recipes, f. 99v).

Causative clauses are those clauses that express “how one event or state is contingent upon another” (Biber et al. 1999: 779). In H135, these clauses are introduced by causative *for* or *because*, and Table 5.12 shows that their occurrence in the surgical treatise almost doubles that in the recipes (*n.f.* 2.7 over 1.6). Thus, these clauses are used for adding relevant information related to the surgical operation or the recipe being described. As for medical practice, these clauses constitute one more reason to think that empiricism was increasing and that each practitioner would include any kind of information considered to be important for the correct accomplishment of the instructions.

- (43) SOMETIME yt happenithe the Reynes to be woundid, Then I give the counsell not to meddle therwithe **For** it lyethe not in mans cure to heale yt for yt is deadly (surgical treatise, f. 67r).



but the more bread and vinager thow casts in the febler is the plaster
 I Counsell that thowe set muche by this plaster **for** it hathe bene ofte
 proved but lay it not to all Sores (medical recipes, f. 96v).

Concessive clauses “indicate that the situation in the matrix clause is contrary to expectation in the light of what is said in the concessive clause” (Quirk et al. 1985: 1098; Biber et al. 1999: 779). These clauses occur marginally in H135, being only found in the collection of recipes. In (44), the concessive clause is used for assuring that the water is so good that no matter how long the patient has been without sight.

- (44) A pretious water for sore eies or for him that hathe lost his sight
althoughe it be by the space of. x. yeris, if ther be any possibilitie
 therin (medical recipes, f. 76r).

Finally, the other adverbial clauses have been included under the category ‘other adverbials’. This category includes adverbial clauses introduced by adverbs such as *while*, *whilst*, *whereby*, *so that* and *as long as*. As observed in Table 5.12, the frequency of all these adverbs together is three times higher in the surgical treatise (*n.f.* 3.7 over 1.2), a fact demonstrating that the surgical treatise is more elaborated than the collection of recipes.

- (45) IF THE breakinge of the pane be greate and the wounde aboue is
 straite **so that** thow cannot be certeyne of the Quantitie of breking
 Then put in the finger and fele diligentlie how muche the breking is
 (surgical treatise, f. 35r).

and throw a litill salt theron then take furthe thy honie **while** it is
 warme and vpon that trencher maike therof four rolls as long but not
 so big as thy little finger (f. 78r).

The occurrence of adverbials in H135 sheds light on the elaboration of discourse in early Modern English medical writing, reaching three conclusions: first, adverbial subordination as a whole is more widely witnessed in the surgical treatise



(*n.f.* 21.3 over 19.5); second, conditional clauses (*n.f.* 14.9 and 16.2 in the surgical treatise and the collection of recipes, respectively) are somewhat balanced in both text types whereas causative adverbial subordination is more widely witnessed in the surgical treatise (*n.f.* 2.7 over 1.6); and third, the occurrence of concessive adverbial subordination is negligible (*n.f.* 0 and 0.5 in the surgical treatise and the collection of recipes, respectively).

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Conditional adverbial subordination	286	14.9	315	16.2
Causative adverbial subordination	52	2.7	32	1.6
Concessive adverbial subordination	-	-	10	0.5
Other adverbial subordination	71	3.7	23	1.2
Total	409	21.3	380	19.5

Table 5.12. Adverbial clauses in H135

5.3.2.3.4.4. Participial clauses

The last subgroup belonging to dependent clauses consists of participial clauses. According to Biber (1988: 233), these clauses are more frequently found in writing than in speech, where they are used for integration and structural elaboration. In H135, only present participial post-nominal clauses and present and past participial adverbial clauses have been found.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Present participial post-nominal clauses	48	2.5	16	0.8
Past participial post-nominal clauses	-	-	-	-
Present participial adverbial clauses	17	0.9	41	2.1
Past participial adverbial clauses	28	1.5	66	3.4
Total	93	4.9	123	6.3

Table 5.13. Participial clauses in H135

As for the distribution of present participial post-nominal clauses in H135 (46), their distribution is three times higher in the surgical treatise than in the recipes (*n.f.* 2.5 over 0.8). According to Thompson (1983: 51), these clauses are used for depictive functions, that is, for the elaboration of descriptions by means of the creation of mental images. Thus, we find that this process of depiction is a resource more frequently witnessed in the surgical treatise if compared with the collection of recipes.

- (46) Then meng with yt the foresaid oyle and set it againe on the fyre and make yt to boyle **strewing** in all the powder of litarge ouer (surgical treatise, f. 49r).

then power it again vpon the said wine doing so viij tymes then take the said wax and melt it on the fier **mixing** with it a handfull of breek finelye beaten (medical recipes, f. 118v).

Present and past participial adverbial clauses function as reduced relative clauses, and they have been identified as devices used for producing “highly informational discourse under severe time constraints” (Biber 1988: 233: see also Janda 1985: 447). In H135, the occurrence of these kinds of constructions is twice more frequent in the recipes than in the surgical treatise (*n.f.* 2.1 and 3.4 over 0.9 and 1.5, respectively). Therefore, such a distribution is perfectly understandable as the text in the collection of recipes is less elaborated than the surgical treatise in terms of structure, sharing many of the linguistic features typical of spoken discourse.¹⁹⁷

- (47) And if this oyntment will not heale the kanker then strew theron a powder which is good to fret awaie cankers **Being** in smow placis and maid in thus manner (surgical treatise, f. 50v).

¹⁹⁷ It must be noted that even though present and past participial adverbial clauses are a simplified version of relative clauses, this increases the level of linguistic complexity, as more processing is needed on the part of the reader.



And when thow putes it into the water thus reched thow shalt see the mercurie dissolved into the water and the goold **lying** in the bottom of the water in a calp (recipe collection, f. 113r).

- (48) And if it be corrupt but parte then haue awaie all the corruption therof with paring of some instrument **maid** therfore (surgical treatise, f. 71v).

and ij or iij Rots of read fennell the pith **taken** out bynde the herbs together and let them sethe well then taik them vp and strew them into the potage (medical recipes, f. 98r).

5.3.3. Discussion

The analysis of the occurrence of the linguistic features indicating reduced and increased linguistic complexity not only has shed light on the levels of complexity in the text types under analysis, but also it has revealed their most characteristic features as text types belonging to the same genre. As such, these text types have been found to share certain linguistic features that are common in academic writing, while others have been more widely witnessed in one of the two. As far as the linguistic features related to reduced linguistic complexity are concerned, these have been more widely witnessed in the collection of recipes, a fact that was initially expected as this text type is considered to be more informal than the surgical treatise. Consequently, linguistic features such as the pro-verb *do*, the pronoun *it*, demonstrative pronouns and clausal coordination occur almost twice as many times in the collection of recipes if compared with the surgical treatise.

When it comes to the linguistic features associated with increased linguistic complexity, the surgical treatise outnumbers recipes in some dimensions and *viceversa*, that is, the surgical treatise shows higher complexity in some aspects and the collection of recipes does so in others. As shown in Tables 5.14 and 5.15, the surgical treatise obtains higher scores in the integration of structure, the occurrence of passive constructions, structural elaboration on reference, and the



use of complement clauses and adverbial clauses. The collection of recipes, in turn, shows a higher occurrence of linguistic features associated with less specified reference, fragmented structure, lexical specificity and the use of participial clauses. For these reasons, we conclude that the surgical treatise clearly features a higher level of linguistic complexity if compared with the recipes.

Interestingly enough, however, the counting of these linguistic features has also revealed some characteristic features of the text types under analysis. Thus, within the features related to reduced complexity, it is demonstrated that the pronoun *it*, demonstrative pronouns and clausal coordination are more widely witnessed in remedies, while the occurrence of pro-verb *do* is somewhat balanced. Among those elements associated with increased linguistic complexity, three different tendencies have been observed:

1. Characteristic linguistic features of the medical genre: high frequency of nouns and adjectives, use of infinitive clauses and conditional adverbial subordination.
2. Characteristic linguistic features of the surgical treatise: high frequency of prepositions, nominalizations, phrasal coordination, passives, “pied piping” relative clauses, relative clauses on object position, *that* complement clauses to adjectives and verbs, causative adverbial subordination and present participle postnominal clauses.
3. Characteristic linguistic features of the medical recipes: *that* relative clauses in subject position and present and past participle clauses.

	Surgical treatise	Medical recipes
Less specified reference	33	45.8
Fragmented structure	5.6	8.5

Table 5.14. Linguistic features associated with reduced linguistic complexity (*n.f.*)

	Surgical treatise	Medical recipes
Integrated structure	478.2	404.7
Lexical specificity	13.5	15.2
Passive constructions	16.2	6
Structural elaboration on reference	3.9	3.2
Complement clauses	21.1	17.6
Adverbial clauses	21.3	19.5
Participial clauses	4.9	6.3

Table 5.15. Linguistic features associated with increased linguistic complexity (*n.f.*)¹⁹⁸¹⁹⁸ The linguistic features associated to lexical specificity have not been normalized as they are individual countings of each text type.



CHAPTER 6

CONCLUSIONS

The present PhD dissertation has studied early Modern English scientific writing, focusing on the edition, corpus compilation and assessment of linguistic complexity of two early Modern English medical text types, i.e. a surgical treatise and a collection of medical recipes. For the purpose, a hitherto unedited volume, MS Hunter 135 (henceforth H135) was selected, of which ff. 34r-121v have been the basis of this research. The following conclusions have been obtained.

The opening chapter of the present dissertation has analysed the socio-historical context in which H135 was created and existed, that is, Tudor England. This period is characterised by major changes at the level of society, where the economy was not solely based on land and an emerging middle class was taking over the cities (merchants, lawyers and doctors, among others). In the field of medicine, the medical marketplace was integrated by trained practitioners, who made a living with the practice of medicine; and amateur practitioners, who acquired their knowledge from books or hearsay. Among these practitioners, women also played an important role, as they were aware of quite a great deal of remedies and other treatments for different diseases, being able to heal members of their family or neighbours saving the money that a physician, surgeon or apothecary would have charged.

Scientific writing was also affected by the evolution of science, from scholasticism to empiricism, that is, from a construal of science that was exclusively based on classical authors to a science based on observation through induction. From a linguistic point of view, this evolution had an effect on the way knowledge was transmitted, and the texts under study in the present dissertation demonstrate the new way in which scientific writing was created, becoming fully



independent of classical authors and relying almost exclusively on empiricism. The surgical treatise is a clear example of the movement towards empiricism and the prestige that surgery started to acquire from the sixteenth century onwards, as the treatise contains not only instructions to carry out surgical operations but also recipes for the preparation of medicines and healing salves.

Chapter 2 has dealt with the contents, ownership and physical description of the volume. The volume was used for different purposes (that is the reason why it contains three different indexes) and by different people (the owners of the manuscript: William Hunter, Leonardus Cooke and Henry Swinburne). In relation to the physical features of the volume, it has been demonstrated that the volume was written towards the middle of the sixteenth century. Finally, the analysis of punctuation has shown that it is employed differently depending on the text type. Thus, punctuation is used mainly at sentential and clausal level in the surgical treatise, while it is more widely witnessed at phrase level in the collection of recipes.

Chapter 3 has provided the editorial principles followed in the semi-diplomatic transcription of the hitherto unedited H135. In this chapter, the importance of (semi)diplomatic transcriptions for linguistic research has been highlighted, an importance that has been demonstrated in the following chapters with the application of corpus linguistics tools. In addition, an introduction to textual scholarship and scholarly editing precedes. The chapter ends with the semidiplomatic edition of H135, constituting a valuable resource for the study of early Modern English medical writing. The potentiality of this edition could be seen from two different perspectives. On the one hand, it has been used as the input for the compilation of an early Modern English corpus of scientific writing, hence allowing for linguistic studies concerned with different topics in the history of English (see Chapter 5). On the other hand, the contents of the volume can be now better disseminated, as there is no need to be a specialist in early Modern English palaeography in order to be able to read the treatises and, therefore, other



areas of research can be also benefitted (history of medicine, among others). Furthermore, the provided glossary helps the reader understand the content of the text and, from a linguistic point of view, it allows the linguist to observe the different allomorphs together with their number of hits, a material which stands out for its potential for research, especially from the point of view of the spelling.

Chapter 4 has focused on corpus linguistics and, more specifically, on the importance of corpus linguistics applied to historical linguistics. As stated, corpora did not have as great an impact on historical linguistics as they did in other branches of linguistics, historical linguists exclusively depending on historical texts for their research. However, what did improve the proliferation of corpora was, for instance, the quantitative aspect of those analyses which, combined with qualitative approaches, certainly improved the quality of research in historical linguistics. The main restrictions of historical corpora have been also outlined: the difficulties in the compilation of the material, the scarcity or non-existence of material belonging to genres or subgenres in different historical periods and the shortcomings to obtain accurate sociolinguistic information from the sources. Besides, the advantages and disadvantages of compiling a historical corpus out of (early) printed versions of the texts as opposed to manuscript material have been commented on, the latter being the preferred option from a purely linguistic viewpoint. Finally, the *Málaga Corpus of Early Modern English Scientific Prose* has been presented and spelling variation has been identified as another of the problems when compiling a historical corpus, as it complicates the labour of automatic softwares with different purposes, i.e. CLAWS. In this vein, VARD has been proposed as the ideal tool for normalising the variant spellings in H135 as it enhances the accuracy of CLAWS almost a 20%, hence the importance of this pre-processing stage.

The analysis of the levels of linguistic complexity in Chapter 5 has been divided into four different subsections. First, a theoretical framework of the topic has been provided, with the definition of the term ‘complexity’. After this



introduction, the study of the linguistic complexity of H135 has been based on the analysis of macro-linguistic factors (text structure and text layout) and micro-linguistic factors (linguistic features denoting reduced linguistic complexity and linguistic features denoting increased linguistic complexity).

When it comes to the analysis of macrolinguistic factors, the text structure in the surgical treatise is more elaborated than that in the collection of recipes, as the former shows more rhetorical moves than the latter. In addition, titles are much simpler in the collection of recipes, where it is usually rendered with the name of the ailment to be cured. The surgical treatise has proven more complex because its structure is unpredictable in terms of rhetorical moves (a complication may arise, an alternative treatment may be offered, etc.). The surgical treatise is also more complex than the collection of recipes in terms of text layout for two different reasons. First, the surgical treatise lacks a prologue in which its contents are explained, while the collection of recipes does. Second, titles in the collection of recipes are much more specific, allowing the reader to quickly find what he/she wants to read.

When it comes to the analysis of linguistic features denoting reduced complexity, the study has corroborated that they are more frequent in the collection of recipes if compared with the surgical treatise. Following this thread, the linguistic features denoting increased complexity are more widely distributed in the surgical treatise with only a few exceptions. For these reasons, the surgical treatise has a higher level of linguistic complexity than the collection of recipes at microlinguistic level.

Finally, the assessment of those linguistic features has also revealed some characteristic linguistic features of the text types under analysis. Thus, the high frequency of prepositions, nominalizations, phrasal coordination, passives, “pied piping” relative clauses, relative clauses in object position, *that* complement clauses to adjectives and verbs, causative adverbial subordination and present



Chapter 6. Conclusions

participial postnominal clauses have been identified as characteristic of the surgical treatise; while *that* relative clauses in subject position and present and past participial clauses are characteristic of the collection of recipes.





CHAPTER 7

REFERENCES

- Adolphs, Svenja. 2008. *Corpus and Context*. Amsterdam: John Benjamins.
- Aho, Alfred V. 1990. “Algorithms for Finding Patterns in Strings.” *Handbook of Theoretical Computer Science. Volume A: Algorithms and Complexity*, edited by Jan van Leeuwen. Cambridge: The MIT Press. 255–300.
- Alonso-Almeida, Francisco. 2002a. “Punctuation Practice in a Late Medieval English Medical Remedybook.” *Folia Linguistica Historica* 22.1: 207–232.
- Alonso-Almeida, Francisco and Mercedes Cabrera Abreu. 2002b. “The Formulation of Promise in Medieval English Medical Recipes: A Relevance-Theoretic Approach.” *Neophilologus* 86.1: 137–154.
- Alonso-Almeida, Francisco and Ivalla Ortega Barrera. 2014. “Sixteenth Century Punctuation in the ‘Booke of Soueraigne Medicines’.” *Onomázein* 30: 146–168.
- Amussen, Susan Dwyer. 1993. *An Ordered Society: Gender and Class in Early Modern England*. Oxford: Columbia University Press.
- Anthony, Laurence. 2014. *AntConc (Version 3.4.4)* [Computer Software]. Tokyo, Japan: Waseda University. Available from <http://www.laurenceanthony.net/>.
- Arakelian, Paul G. 1975. “Punctuation in a Late Middle English Manuscript.” *Neuphilologische Mitteilungen* 76: 614–624.
- Archer, Dawn, Merja Kytö, Alistair Baron and Paul Rayson. 2015. “Guidelines for Normalising Early Modern English Corpora: Decisions and Justifications.” *ICAME Journal* 39: 5–24.
- Atkinson, Dwight. 1996. “*The Philosophical Transactions of the Royal Society of London, 1675–1975*: A Sociohistorical Discourse Analysis.” *Language in Society* 25: 333–371.



- Atwell, Eric. 2008. “Developing of Tag Sets for Part-of-speech Tagging.” *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 501–526.
- Banks, David. 2001. “The reification of Scientific Process: The Development of Grammatical Metaphor in Scientific Discourse.” *Language for Special Purposes: Perspectives for a new Millennium*, edited by Tübingen: Gunter Narr. 555–563.
- Banks, David. 2003. “The Evolution of Grammatical Metaphor in Scientific Writing.” *Grammatical Metaphor: Views from Systemic Functional Linguistics*, edited by Anne-Marie Simon-Vandenburgen, Miriam Taverniers and Louise Ravelli. Amsterdam: John Benjamins. 127–147.
- Banks, David. 2005. “On the Historical Origins of Nominalized Process in Scientific Text.” *English for Specific Purposes* 24: 347–357.
- Baron, Alistair. 2011. *Dealing with Spelling Variation in Early Modern English Texts*. Unpublished PhD thesis.
- Baron, Alistair and Paul Rayson. 2008. “VARD 2: A Tool for Dealing with Spelling Variation in Historical Corpora.” *Proceedings of the Postgraduate Conference in Corpus Linguistics*, Aston University. Birmingham.
- Baron, Alistair and Paul Rayson. 2009. “Automatic Standardization of Texts Containing Spelling Variation, How Much Training Data Do You Need? In *Proceedings of the Corpus Linguistics Conference*, edited by Michaela Mahlberg, Victorina González-Díaz and Catherine Smith. University of Liverpool. 1–25.
- Bello, Iria. 2016. “Cognitive Implications of Nominalizations in the Advancement of Scientific Discourse.” *International Journal of English Studies* 16.2: 1–23.
- Bergenholtz, Henning and Burkhard Schaeder (eds.). 1979). *Empirische Textwissenschaft: Aufbau und Auswertung von Text-Corpora*. Königstein: Scriptor Verlag.

- Bhatia, Vijay K. 1993. *Analysing Genre. Language Use in Professional Settings*. London: Longman.
- Biber, Douglas. 1985. "Investigating Macroscopic Textual Variation through Multifeature/Multidimensional Analyses." *Linguistics* 23: 337–360.
- Biber, Douglas. 1986. "Spoken and Written Textual Dimensions in English: Resolving the Contradictory Findings." *Language* 62: 384–414.
- Biber, Douglas. 1988. *Variation Across Speech and Writing*. Cambridge: Cambridge University Press.
- Biber, Douglas. 1989. "A Typology of English Texts." *Linguistics* 27: 3–43.
- Biber, Douglas. 1992. "On the Complexity of Discourse Complexity: A Multidimensional Analysis." *Discourse Processes* 15: 133–163.
- Biber, Douglas. 1993. "Representativeness in Corpus Design." *Literary and Linguistic Computing* 8.4: 243–257.
- Biber, Douglas. 2012. "Register and Discourse Analysis." *The Routledge Handbook of Discourse Analysis*, edited by James Paul Gee and Michael Handford. London and New York: Routledge. 191–208.
- Biber, Douglas and Edward Finegan. 1997. "Diachronic Relations among Speech-based and Written Registers in English." *To Explain the Present: Studies in the Changing English Language in Honour of Matti Rissanen*, edited by Terttu Nevalainen. Helsinki: Société Neophilologique. 253–275.
- Biber, Douglas and Susan Conrad. 2009. *Register, Genre and Style*. Cambridge: Cambridge University Press. London: Longman.
- Biber, Douglas, Susan Conrad and Randi Reppen. 1998. *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge: Cambridge University Press.
- Biber, Douglas, Ulla Connor and Thomas A. Upton. 2007. *Discourse on the Move: Using Corpus Analysis to Describe Discourse Structure*. Amsterdam: John Benjamins.



- Biber, Douglas, Stig Johansson, Geoffrey Leech, Susan Conrad and Edward Finegan. 1999. *Grammar of Spoken and Written English*. London: Longman.
- Brown, Thomas Julian. 1968. "Foreword." *Elizabethan Handwriting 1500–1650: A Guide to the Reading of Documents and Manuscripts*, by Giles E. Dawson and Laetitia Kennedy-Skipton. London: Faber and Faber.
- Burnard, Lou. 1995. "The Text Encoding Initiative: An Overview." *Spoken English on Computer*, edited by Geoffrey Leech, Greg Myers and Jenny Thomas. Harlow, Essex: Longman. 69–81.
- Caie, Graham D. 2008. "The Manuscript Experience: What Medieval Vernacular Manuscripts Tell Us About Authors and Texts." *Medieval Texts in Context*, edited by Graham D. Caie and Denis Renevey. London and New York: Routledge. 10–27.
- Calle-Martín, Javier. 2004. "Punctuation practice in a 15th-century arithmetical treatise (MS Bodley 790)." *Neuphilologische Mitteilungen* 4: 407–422.
- Calle-Martín, Javier. 2012. "A Middle English Version of *The Doom of Urines* in MS Rawlinson C. 81, ff. 6r–12v." *Analecta Malacitana* 35: 243–274.
- Calle-Martín, Javier and Antonio Miranda-García. 2005a. "Aspects of Scribal Punctuation in the Old English Apollonius of Tyre." *Folia Linguistica Historica* 26. 1–2: 95–113.
- Calle-Martín, Javier and Antonio Miranda-García. 2005b. "Editing Middle English Punctuation. The Case of MS Egerton 2622 (ff. 136–152)." *International Journal of English Studies* 5.2: 27–44.
- Calle-Martín, Javier and Antonio Miranda-García. 2007. "The Punctuation System of Elizabethan Legal Documents: The Case of G.U.L. MS Hunter 3 (S.1.3)." *Review of English Studies* 59: 356–378.
- Calle-Martín, Javier and Jesús Romero-Barranco. 2014. "On the Use of that/zero as Object Clause Links in Early English Medical Writing." *Studia Neophilologica* 86.1: 1–16.

- Campbell, Lyle. 2004. *Historical Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
- Carrol, Ruth, Matti Peikola, Hanna Salmi, Mari-Liisa Varila, Janne Skaffari and Risto Hiltunen. 2013. “Pragmatics on the Page.” *European Journal of English Studies* 17.1: 54–71.
- Chafe, Wallace L. 1982. “Integration and Involvement in Speaking, Writing and Oral Literature.” *Spoken and Written Language: Exploring Orality and Literacy*, edited by Deborah Tannen. New Jersey: ABLEX Publishing Corporation. 35–54.
- Chafe, Wallace L. 1985. “Linguistic Differences Produced by Differences Between Speaking and Writing.” *Literacy, Language and Learning: The Nature and Consequences of Reading and Writing*, edited by David R. Olson, Nancy Torrance and Angela Hildyard. Cambridge: Cambridge University Press. 105–123.
- Chafe, Wallace L. and Jack Danielewicz. 1986. “Properties of Spoken and Written Language.” *Comprehending Oral and Written Language*, edited by Rosalind Horowitz and S. Jay Samuels. New York: Academic Press. 83–116.
- Claridge, Claudia. 2008. “Historical Corpora.” *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 242–258.
- Classical Text Editor*. 1997. Austrian Academy of Sciences and the CSEL. Available at <<http://cte.oeaw.ac.at/>>.
- Clemens, Raymond and Timothy Graham. 2007. *Introduction to Manuscript Studies*. Ithaca and London: Cornell University Press.
- Coe, Richard M. and Aviva Freedman. 1998. “Genre Theory: Australian and North American Approaches.” *Theorizing Composition*, edited by Mary Lynch Kennedy. Westport, CT: Greenwood Publishing Company. 136–147.



- Conde-Silvestre, Juan Camilo and Javier Calle-Martín. 2015. "Zero *that*-clauses in the History of English. A Historical Sociolinguistic Approach (1424–1681)." *Journal of Historical Sociolinguistics* 1.1: 57–86.
- Copeman, William and Sidney Charles. 1960. *Doctors and Disease in Tudor Times*. Liverpool, London and Prescott: Dawson's of Pall Mall.
- Crombie, Alistair Cameron. 1994. *Styles of Scientific Thinking in the European Tradition: the History of Argument and Explanation, Especially in the Mathematical and Biomedical Sciences and Arts* (3 vols.). London: Duckworth.
- Cruz-Cabanillas, Isabel de la. 2014. "Punctuation Practice in Manuscript Sainte Geneviève 3390." *Nordic Journal of English Studies* 13.3: 139–159.
- Crystal, David and Derek Davy. 1969. *Investigating English Style*. London: Longman.
- Curzan, Anne. 2008. "Historical Corpus Linguistics and Evidence of Language Change." *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 1091–1108.
- Curzan, Anne and Chris C. Palmer. 2006. "The Importance of Historical Corpora, Reliability, and Reading." *Corpus-based Studies of Diachronic English*, edited by Roberta Facchinetti and Matti Rissanen. Bern: Peter Lang. 17–34.
- Dahl, Östen. 2004. *The Growth and Maintenance of Linguistic Complexity*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Danet, Brenda. 1980. "Language in the Legal Process." *Law and Society Review* 14.3: 445–564.
- Davies, Mark. 2011. "Synchronic and Diachronic Uses of Corpora." *Perspectives on Corpus Linguistics*, edited by Vander Viana, Sonia Zyngier and Geoff Barnbrook. Amsterdam and Philadelphia: John Benjamins Publishing Company. 63–81.



- Davies, Mark. 2015. “Corpora: An Introduction.” *The Cambridge Handbook of English Corpus Linguistics*, edited by Douglas Biber and Randi Reppen. Cambridge: Cambridge University Press. 11–31.
- Dawson, Giles E. and Laetitia Kennedy-Skipton. 1968. *Elizabethan Handwriting 1500–1650. A Guide to the Reading of Documents and Manuscripts*. London: Faber and Faber.
- De Hamel, Christopher. 1992. *Medieval Craftsmen: Scribes and Illuminators*. London: British Museum Press.
- Denholm-Young, Noël. 1954. *Handwriting in England and Wales*. Cardiff: University of Wales Press.
- Derolez, Albert. 2003. *The Palaeography of Gothic Manuscript Books. From the Twelfth to the Early Sixteenth Century*. Cambridge: Cambridge University Press.
- Dorgeloh, Deidrun. 2005. “Patterns of Agentivity and Narrativity in Early Science Discourse.” *Opening Windows on Texts and Discourses of the Past*, edited by Janne Skaffari, Matti Peikola, Ruth Carroll, Risto Hiltunen and Brita Warvik. Amsterdam and Philadelphia: John Benjamins Publishing Company. 83–94.
- Eggins, Suzanne. 1994. *An Introduction to Systemic Functional Linguistics*. London: Pinter Publishers.
- Elspass, Stephan. 2012. “The Use of Private Letters and Diaries in Sociolinguistic Investigation.” *The Handbook of Historical Sociolinguistics*, edited by Juan Manuel Hernández-Campoy and Juan Camilo Conde Silvestre. Oxford: Wiley-Blackwell. 156–179.
- Esteban-Segura, María Laura. 2010. “Punctuation Practice in G.U. L. MS Hunter 509.” *Textual Healing: Studies in Medieval English Medical, Scientific and Technical Texts*, edited by Javier E. Díaz Vera and Rosario Caballero. Bern: Peter Lang AG. 93–107.



- Facchinetti, Roberta and Matti Rissanen. 2006. "Introduction." *Corpus-based Studies of Diachronic English*, edited by Roberta Facchinetti and Matti Rissanen. Bern: Peter Lang. 7–15.
- Fairbank, Alfred. 1968. *A Book of Scripts*. Maryland: Penguin Books.
- Fairbank, Alfred and Berthold Wolpe. 1960. *Renaissance Handwriting*. London: Faber and Faber.
- Fawcett, Robin P., Michael A. K. Halliday, Sydney M. Lamb and Adam Makkai. 1984. "Introduction." *The Semiotics of Culture and Language*, Vol I, edited by Robin P. Fawcett, Michael A. K. Halliday, Sydney M. Lamb and Adam Makkai. London and Dover N. H.: Frances Pinter Publishers. xv–xxvi.
- Ferguson, John. 1930. "The Secrets of Alexis. A Sixteenth Century Collection of Medical and Technical Receipts." *Proceedings of the Royal Society of Medicine* 24.2: 225–246.
- Finegan, Edward and Douglas Biber. 2001. "Register Variation and Social Dialect Variation." *Style and Sociolinguistic Variation*, edited by Penelope Eckert and John R. Rickford. Cambridge: Cambridge University Press. 235–267.
- Firth, John Rupert. 1935. "The Technique of Semantics." *Transactions of the Philological Society* 34.1: 36–73.
- Fischer, Olga. 1992. "Syntax." *The Cambridge History of the English Language, Volume II, 1066–1476*, edited by Norman Blake. Cambridge: Cambridge University Press. 207–408.
- Fligelstone, Steve. 1992. "Developing a Scheme for Annotating Text to Show Anaphoric Relations." *Proceedings of the 11th International Conference on English Language Research on Computer Corpora*. Berlin: Mouton de Gruyter. 153–170.
- Ford, Wyn. 1993. "The Problem of Literacy in Early Modern England." *History* 78.252: 22–37.
- Francis, W. Nelson. 1982. "Problems of Assembling and Computerizing Large Corpora." *Computer Corpora in English Language Research*, edited by Stig



- Johansson. Bergen: Norwegian Computing Centre for the Humanities. 7–24.
- Francis, W. Nelson. 1987. “A Tagged Corpus – Problems and Prospects.” *Studies in English Linguistics for Randolph Quirk*, edited by Sidney Greenbaum, Geoffrey Leech and Jan Svartvik. London and New York: Longman. 192–209.
- Francis, W. Nelson. 1992. “Language Corpora B. C.” *Directions in corpus linguistics: proceedings of Nobel symposium 82*, edited by Jan Svartvik. Berlin and New York: Mouton de Gruyter. 17–34.
- Francis, W. Nelson and Henry Kučera. 1964. *Manual of Information to Accompany A Standard Sample of Present-Day Edited American English, for Use with Digital Computers*. Providence, RI: Department of Linguistics, Brown University.
- Garside, Roger. 1987. “The CLAWS Word-tagging System.” *The Computational Analysis of English: A Corpus-based Approach*, edited by Roger Garside, Geoffrey Leech and Geoffrey Sampson. London: Longman. 30–41.
- Garside, Roger. 1993. “The Marking of Cohesive Relationships: Tools for the Construction of a Large Bank of Anaphoric Data.” *ICAME Journal* 17: 5–27.
- Garside, Roger. 1996. “The Robust Tagging of Unrestricted Text: The BNC Experience.” *Using Corpora for Language Research: Studies in the Honour of Geoffrey Leech*. London: Longman. 167–180.
- Garside, Roger and Nicholas Smith. 1997. “A Hybrid Grammatical Tagger: CLAWS 4.” *The Computational Analysis of English*, edited by Roger Garside, Geoffrey Leech and Geoffrey Sampson. London: Longman. 102–121.
- Garside, Roger, Geoffrey Leech and Geoffrey Sampson. 1987. *The Computational Analysis of English*. London: Longman.
- Genette, Gerard. 1997. *Paratexts: Thresholds of Interpretation*. Cambridge:



Cambridge University Press.

- Görlach, Manfred. 1992. “Text-types and Language History: The Cookery Recipe.” *History of Englishes: New Methods and Interpretations in Historical Linguistics*, edited by Matti Rissanen, Ossi Ihälainen, Terttu Nevalainen and Irma Taavitsainen. Berlin and New York: Mouton de Gruyter. 736–761.
- Gotti, Maurizio. 2001. “The Experimental Essay in Early Modern English.” *European Journal of English Studies* 5.2: 221–239.
- Greene, Barbara and Gerald M. Rubin. 1971. *Automatic Grammatical Tagging. Technical Report*. Department of Linguistics: Brown University.
- Greetham, David C. 1992. *Textual Scholarship: An Introduction*. New York and London: Garland Publishing.
- Greetham, David C. 1995. “Introduction.” *Scholarly Editing: A Guide to Research*, edited by David C. Greetham. New York: The Modern Language Association of America. 1–8.
- Greetham, David C. 2013. “A History of Textual Scholarship.” *The Cambridge Companion to Textual Scholarship*, edited by Neil Fraistat and Julia Flanders. Cambridge: Cambridge University Press. 16–41.
- Grujis, A. 1972. “Codicology or the Archaeology of the Book? A False Dilemma.” *Quaerendo* 2.2: 87–108.
- Gumbrecht, Hans Ulrich. 2003. *The Powers of Philology*. Chicago: Chicago University Press.
- Guy, John. 1984. “The Tudor Age (1485–1603).” *The Oxford History of Britain*, edited by Kenneth O. Morgan. Oxford: Oxford University Press. 257–326.
- Halliday, Michael A. K. 1973. *Explorations in the Functions of Language*. London: Butler and Tanner Ltd.
- Halliday, Michael A. K. 1975. *Learning How to Mean: Explorations in the Development of Language*. London: Edward Arnold (Publishers) Ltd.

- Halliday, Michael A. K. 1978. *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. London: Edward Arnold (Publishers) Ltd.
- Halliday, Michael A. K. 1988. "On the Language of Physical Science." *Registers of Written English, Situational Factors and Linguistic Features*, edited by Mohsen Ghadessy. London: Pinter. 162–178.
- Halliday, Michael A. K. 1994. *An Introduction to Functional Grammar*. London: Edward Arnold.
- Halliday, Michael A. K. and Ruqaiya Hasan. 1985. *Language, Context and Text: Aspects of Language in a Social-semiotic perspective*. Oxford: Oxford University Press.
- Hector, Leonard Charles. 1958. *The Handwriting of English Documents*. London: Edward Arnold.
- Heller, Monica. 1988. "Introduction." *Codeswitching: Anthropological and Sociolinguistic Perspectives*, edited by Monica Heller. Berlin: Mouton de Gruyter. 1–24.
- Hilpert, Martin and Stephan Th. Gries. 2016. "Quantitative Approaches to Diachronic Corpus Linguistics." *The Cambridge Handbook of English Historical Linguistics*, edited by Merja Kytö and Päivi Pahta. Cambridge: Cambridge University Press. 36–53.
- Hiltunen, Turo. 1990. *Chapters on Legal English. Aspects Past and Present of the Language of the Law*. Academia Scientiarum Fennica. Jyväskylä: Gummerus.
- Hockett, Charles F. 1958. *A Course in Modern Linguistics*. New York: Macmillan.
- Huddleston, Rodney and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Hume, David. 1984. *The History of England*, 6 vols. New York: Liberty Classics.
- Hundt, Marianne. 2008. "Text Corpora." *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 168–186.



- Hundt, Marianne, David Denison and Gerold Schneider. 2012. "Relative Complexity in Scientific Discourse." *English Language and Linguistics* 12: 209–240.
- Hunt, Tony. 1990. *Popular Medicine in Thirteenth-Century England*. Cambridge: D. S. Brewer.
- Hyland, Ken. 2002. "Genre: Language, Context, and Literacy." *Annual Review of Applied Linguistics* 22: 113–135.
- Janda, Richard D. 1985. "Note-taking as a Simplified Register." *Discourse Processes* 8: 437–454.
- Jenkinson, Hilary. 1927. *The Later Court Hands in England: from the Fifteenth to the Seventeenth Century*. New York: Frederick Ungar Publishing Co.
- Jenner, Mark S. R. and Patrick Wallis. 2007. "The Medical Marketplace." *Medicine and the Market in England and its Colonies, c. 1450–1850*, edited by Mark S. R. Jenner and Patrick Wallis. Hampshire: Palgrave Macmillan. 1–23.
- Johansson, Stig. 1995. "Mens Sana in Corpore Sano: On the Role of Corpora in Linguistic Research." *The European English Messenger* IV.2: 19–25.
- Johansson, Stig. 2008. "Some Aspects of the Development of Corpus Linguistics in the 1970s and the 1980s." *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 33–52.
- Jones, Claire. 1998. "Formula and Formulation: 'Efficacy Phrases' in Medieval English Medical Manuscripts." *Neuphilologische Mitteilungen* 99.2: 199–209.
- Jones, Peter Murray. 2011. "Medical Literacies and Medical Culture in Early Modern England." *Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 30–43.

- Karlsson, Fred. 2014. “Complexity in Linguistic Theorizing.” *Words & Constructions: Language Complexity in Linguistics and Psychology*, edited by Juhani Järvikivi, Pirita Pyykkönen-Klauck and Matti Laine. Special issue of *The Mental Lexicon* 9.2: 144–169.
- Kennedy, Graeme. 1998. *Introduction to Corpus Linguistics*. London: Longman.
- Kohnen, Thomas. 2001a. “On Defining Text Types within Historical Linguistics: The Case of Petitions/Statutes.” *European Journal of English Studies* 5.2: 197–203.
- Kohnen, Thomas. 2001b. “Text Types as Catalysts for Language Change: The Example of the Adverbial First Participle Construction.” *Towards a History of English as a History of Genres*, edited by Hans-Jürgen Diller and Manfred Görlach. Heidelberg: Winter. 111–126.
- Kohnen, Thomas. 2007. “‘Connective Profiles’ in the History of English Texts.” *Connectives in the History of English*, edited by Ursula Lenker and Anneli Meurman-Solin. Amsterdam: John Benjamins. 289–308.
- Kytö, Merja. 1991. *Manual to the Diachronic Part of the Helsinki Corpus of English Texts*. Helsinki: Department of English, University of Helsinki.
- Kytö, Merja and Matti Rissanen. 1992. “A Language in Transition: the Helsinki Corpus of English Texts.” *ICAME Journal* 16: 7–27.
- Kytö, Merja and Terry Walker. 2003. “The Linguistic Study of Early Modern English Speech-Related Texts: How ‘Bad’ can ‘Bad’ Data Be?” *Journal of English Linguistics* 31.3: 221–248.
- Lambrecht, Knud. 1994. *Information Structure: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge: Cambridge University Press.
- Lass, Roger. 1999. “Introduction.” *The Cambridge History of the English Language, Volume III, 1476–1776*, edited by Roger Lass. Cambridge: Cambridge University Press. 1–12.

- Lawrence, Keppie. 2007. *William Hunter and the Hunterian Museum in Glasgow, 1807-2007*. Edinburgh: Edinburgh University Press.
- Leech, Geoffrey. 1992. “Corpora and Theories of Linguistic Performance.” *Directions in corpus linguistics: proceedings of Nobel symposium 82*, edited by Jan Svartvik. Berlin and New York: Mouton de Gruyter. 105–122.
- Leech, Geoffrey and Roger Garside. 1991. “Running a Grammar Factory: The Production of Syntactically Analysed Corpora or ‘Treebanks’.” *English Computer Corpora: Selected Papers and Research Guide*, edited by Stig Johansson and Anna-Britta Stenström. Berlin: Mouton de Gruyter. 15–32.
- Leech, Geoffrey, Roger Garside and Eric Atwell. 1983. “The Automatic Grammatical Tagging of the Brown Corpus.” *ICAME Journal* 7: 13–33.
- Leech, Geoffrey, Roger Garside and Michael Bryant. 1994. “CLAWS4: The Tagging of the British National Corpus.” *Proceedings of the 15th International Conference on Computational Linguistics (COLING 94)*. Kyoto, Japan. 622–628.
- Lehmburg, Timm and Kai Wörner. 2008. “Annotation Standards.” *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 484–500.
- Lehto, Anu. 2015. *The Genre of Early Modern English Statutes: Complexity in Historical Legal Language*. Unpublished PhD thesis.
- Lehto, Anu, Alistair Baron, Maura Ratia and Paul Rayson. 2010. “Improving the Precision of Corpus Methods: The Standardized Version of Early Modern English Medical Texts.” *Early Modern English Medical Texts: Corpus Description and Studies*, edited by Irma Taavitsainen and Päivi Pahta. Amsterdam: John Benjamins. 279–290.
- Leong, Elaine. 2005. “Medical Recipe Collections in Seventeenth-Century England: Knowledge, Text and Gender.” Unpublished thesis. Oxford University.



- Leong, Elaine. 2008. "Making Medicines in the Early Modern Household." *Bulletin of the History of Medicine* 82.1: 145–168.
- Leong, Elaine. 2014. "'Herbals She Peruseth': Reading Medicine in Early Modern England." *Renaissance Studies* 28.4: 556–578.
- Leong, Elaine and Sara Pennell. 2007. "Recipe Collections and the Currency of Medical Knowledge in the Early Modern 'Medical Marketplace'." *Medicine and the Market in England and its Colonies, c. 1450–1850*, edited by Mark S. R. Jenner and Patrick Wallis. Hampshire: Palgrave Macmillan. 133–152.
- Lewis, Robert E. et al., eds. *Middle English Dictionary*. Ann Arbor: University of Michigan Press, 1952–2001. Online version in Middle English Compendium, edited by Frances McSparran. Ann Arbor: University of Michigan Press, 2000–. Available from <<http://quod.lib.umich.edu/m/med/>>.
- Lindquist, Hans. 2009. *Corpus Linguistics and the Description of English*. Edinburgh: Edinburgh University Press.
- Lockyer, Roger. 2005. *Tudor and Stuart Britain*. Edinburgh: Pearson Education Limited.
- Lucas, Peter J. 1971. "Sense-units and the Use of Punctuation-markers in John Capgrave's Chronicle." *Archivum Linguisticum* (N.S.) 2: 1–24.
- Lüdeling, Anke and Merja Kytö. 2008. "Introduction." *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. v–xii.
- Mäkinen, Martti. 2011. "Efficacy Phrases in Early Modern English Medical Recipes." *Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 158–179.

- Malinowski, Bronislaw. 1923. "The Problem of Meaning in Primitive Languages." Supplement I to *The Meaning of Meaning*, edited by Charles Kay Ogden and Ivor Armstrong Richards. London: Kegan Paul, Trench, Trübner.
- Marshall, Hilary. 2004. *Palaeography for Family and Local Historians*. Hampshire: Phillimore.
- Martin, James Robert. 1992. *English Text: System and Structure*. Philadelphia and Amsterdam: John Benjamins Publishing Company.
- McCarthy, Michael and Anne O'Keeffe. 2010. "Historical Perspective: What Are Corpora and How Have They Evolved?" *The Routledge Handbook of Corpus Linguistics*, edited by Anne O'Keeffe and Michael McCarthy. London and New York: Routledge. 3–13.
- McEnery, Tony and Andrew Wilson. 1996. *Corpus Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
- Means, Laurel. 1992. "Electionary, Lunary, Destinany, and Questionary: toward Defining Categories of Middle English Prognostic Material." *Studies in Philology* 84.4: 367–403
- Meurman-Solin, Anneli. 2007. "Relatives as Sentence-level Connectives." *Connectives in the History of English*, edited by Ursula Lenker and Anneli Meurman-Solin. Amsterdam and Philadelphia: John Benjamins Publishing Company. 255–288.
- Meyer, Charles F. 2002. *English Corpus Linguistics: An Introduction*. Cambridge: Cambridge University Press.
- Meyer, Charles F. 2008. "Pre-electronic Corpora." *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 1–13.
- Miranda-García, Antonio and Joaquín Garrido-Garrido. 2013. *Text Search Engine*. Málaga: University of Málaga.
- Mitchel, Bruce. 1980. "The Dangers of Disguise: Old English Texts in Modern Punctuation." *Review of English Studies* 31.124: 385–413.

- Moessner, Lilo. 2001. “Genre, Text Type, Style, Register: A Terminological Maze?” *European Journal of English Studies* 5.2: 131–138.
- Nichols, Johanna. 2009. “Linguistic Complexity: A Comprehensive Definition and Survey.” *Language Complexity as an Evolving Variable*, edited by Geoffrey Sampson, David Gil and Peter Trudgill. Oxford: Oxford University Press. 110–125.
- Nicholls, Mark. 1999. *A History of the Modern British Isles, 1509–1603: The Two Kingdoms*. Oxford: Blackwell Publishers Ltd.
- Nurmi, Arja (ed.). 1998. *Manual for the Corpus of Early English Correspondence Sampler CEECS*. Helsinki: Department of English, University of Helsinki.
- Nutton, Vivian. 1985. “Humanist Surgery.” *The Medical Renaissance of the Sixteenth Century*, edited by Andrew Wear, Roger K. French and Iain M. Lonie. Cambridge: Cambridge University Press.
- O’Day, Rosemary. 1995. *The Longman Companion to the Tudor Age*. Edinburgh: Addison Wesley Longman Limited.
- Orwant, Jon, Jarkko Hietaniemi and John Macdonald. 1999. *Mastering Algorithms with Perl*. Sebastopol: O'Reilly.
- Östman, Jan-Ola and Tuija Virtanen. 1995. “Discourse Analysis.” *Handbook of Pragmatics: Manual*, edited by Jef Verschueren, Jan-Ola Östman and Jan Blommaert. Amsterdam and Philadelphia: John Benjamins Publishing Company. 239–253
- Pahta, Päivi. 2001. “Creating a New Genre: Contextual Dimensions in the Production and Transmission of Early Scientific Writing.” *European Journal of English Studies* 5.2: 205–220.
- Pahta, Päivi. 2004. “Code-switching in Medieval Medical Writing.” *Medical and Scientific Writing in Late Medieval English*, edited by Irma Taavitsainen and Paivi Pahta. Cambridge: Cambridge University Press. 73–99.
- Pahta, Päivi. 2011. “Code-switching in Early Modern English Medical Writing.”



- Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 115–134.
- Pahta, Päivi and Irma Taavitsainen. 2004. “Vernacularisation of Scientific and Medical Writing in its Sociohistorical Context.” *Medical and Scientific Writing in Late Medieval English*, edited by Irma Taavitsainen and Paivi Pahta. Cambridge: Cambridge University Press. 1–22.
- Pahta, Päivi and Irma Taavitsainen. 2011. “An Interdisciplinary Approach to Medical Writing in Early Modern English.” *Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 1–8.
- Palmer, Frank. R. 1986. *Mood and Modality*. London: Cambridge University Press.
- Parkes, Malcom B. 1978. “Punctuation, or Pause and Effect.” *Medieval Eloquence. Studies in the Theory and Practice of Medieval Rhetoric*, edited by James J. Murphy. Los Angeles and London: Berkeley.
- Parkes, Malcom B. 1992. *Pause and effect. An introduction to the history of punctuation in the West*. Hants: Scolar Press.
- Partridge, Stephen. 2011. “Decorating the Page.” *The Production of Books in England 1350–1500*, edited by Alexandra Gillespie and Daniel Wakelin. Cambridge: Cambridge University Press. 79–103.
- Pelling, Margaret and Charles Webster. 1979. “Medical Practitioners.” *Health, Medicine and Mortality in the Sixteenth Century*, edited by Charles Webster. Cambridge: Cambridge University Press. 165–236.
- Petti, Anthony Gaetano. 1977. *English Literary Hands from Chaucer to Dryden*. London: Edward Arnold Publishers Ltd.
- Pilz, Thomas, Andrea Ernst-Gerlach, Sebastian Kempken, Paul Rayson and Dawn Archer. 2008. “The Identification of Spelling Variants in English and German Historical Texts: Manual or Automatic?” *Literary and Linguistic Computing* 23.1: 65–72.

- Pinto, David, Darnes Vilariño, Yuridiana Alemán, Helena Gómez, Nahun Loya and Héctor Jiménez-Salazar. 2012. “The Soundex Phonetic Algorithm Revisited for SMS Text Representation.” *Text, Speech and Dialogue: Proceedings of the 15th Internacional Conference, Brno, Czech Republic*, edited by Petr Sojka, Ales Horák, Ivan Kopecek and Karel Pala. Berlin and Heidelberg: Springer. 47–55.
- Porter, Roy. 1987. *Disease, Medicine and Society in England, 1550–1860*. Cambridge: Cambridge University Press.
- Porter, Roy. 1997. *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present*. London: Harper Collins Publishers.
- Preston, Jean F. and Laetitia Yeandle. 1999. *English Handwriting 1400–1650. An Introductory Manual*. Asheville, North Carolina: Pegasus Press.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik. 1985. *A Comprehensive Grammar of the English Language*. London and New York: Longman.
- Rawcliffe, Carole. 1995. *Medicine and Society in Later Medieval England*. Gloucestershire: Sutton Publishing Limited.
- Rayson, Paul. 2015. “Computational Tools and Methods for Corpus Compilation and Analysis.” *The Cambridge Handbook of English Corpus Linguistics*, edited by Douglas Biber and Randi Reppen. Cambridge: Cambridge University Press. 32–49.
- Rayson, Paul, Dawn Archer and Nicholas Smith. 2005. “VARD versus WORD: A Comparison of the UCREL Variant Detector and Modern Spellcheckers on English Historical Corpora.” *Proceedings of Corpus Linguistics 2005, University of Birmingham, UK, July 2005*.
- Rayson, Paul, Dawn Archer, Alistair Baron, Jonathan Culpeper and Nicholas Smith. 2007. “Tagging the Bard: Evaluating the Accuracy of a Modern POS Tagger on Early Modern English Corpora.” *Proceedings of Corpus Linguistics 2007, University of Birmingham, UK, July 2007*.

- van Reenen, Pieter and Margot van Mulken. 1996. "Prologue." *Studies in Stemmatology*, edited by Pieter van Reenen and Margot van Mulken. Amsterdam: John Benjamins. vii–xvi.
- Reppen, Randi. 2010. "Building a Corpus: What Are the Key Considerations?" *The Routledge Handbook of Corpus Linguistics*, edited by Anne O'Keeffe and Michael McCarthy. London and New York: Routledge. 31–37.
- Rescher, Nicholas. 1998. *Complexity: A Philosophical Overview*. New Brunswick and London: Transaction Publishers.
- Rissanen, Matti. 2008. "Corpus Linguistics and Historical Linguistics." *Corpus Linguistics: An International Handbook*, edited by Anke Lüdeling and Merja Kytö. Berlin and New York: Walter de Gruyter. 53–67.
- Robbins, Rossel Hope. 1970. "Medical Manuscripts in Middle English." *Speculum* 45: 393–415.
- Rodríguez-Álvarez, Alicia. 1999. "The Role of Punctuation in 15th-century Vernacular Deeds." *Folia Linguistica Historica* 19: 25–51.
- Romero-Barranco, Jesús. 2015. *The Middle English Version of Constantinus Africanus' Venerabilis Anatomia in London, Wellcome Library, MS 290 (ff. 1r–41v)*. Newcastle Upon Tyne: Cambridge Scholars Publishing.
- Salmon, Vivian. 1988. "English Punctuation Theory 1500–1800." *Anglia* 106: 285–314.
- Salmon, Vivian. 1999. "Orthography and Punctuation." *The Cambridge History of the English Language, Vol. 3, 1476–1776*, edited by Roger Lass. Cambridge: Cambridge University Press. 13–55.
- Scott, Michael. 2017. *WordSmith Tools Version 7*. Stroud: Lexical Analysis Software.
- Sharpe, James A. 1997. *Early Modern England: A Social History 1550–1760*. Bristol: J. W. Arrowsmith Ltd.
- Sampson, Geoffrey. 2009. "A Linguistic Axiom Challenged." *Language Complexity as an Evolving Variable*, edited by Geoffrey Sampson, David Gil



- and Peter Trudgill. Oxford: Oxford University Press. 1–18.
- Saussere, Ferdinand de. 1916. *Course in General Linguistics*. Edited by Charles Bally and Albert Sechehaye. New York, Toronto and New York: McGraw-Hill Book Company.
- Schiffrin, Deborah, Deborah Tannen and Heidi E. Hamilton. 2001. “Introduction.” *The Handbook of Discourse Analysis*, edited by Deborah Schiffrin, Deborah Tannen and Heidi E. Hamilton. Oxford: Blackwell Publishers Ltd. 1–10.
- Seoane, Elena. 2012. “Givenness and Word Order: A Study of Long Passives from Early Modern English to Present-Day English.” *Information Structure and Syntactic Change in the History of English*, edited by Annely Meurman-Solin, María José López-Couso and Bettelou Los. Oxford: Oxford University Press. 139–163.
- Simon, Herbert A. 1962. “The Architecture of Complexity.” *Proceedings of the American Philosophical Society* 106.6: 467–482.
- Simpson, John A. and Edmund S. C. Weiner (eds.). 2004. *Oxford English Dictionary. Second Edition on CD-ROM*. Version 3.1. Oxford: Oxford UP.
- Sinclair, John. 2002. “Intuition and Annotation – The Discussion Continues.” *Advances in Corpus Linguistics. Papers from the 23rd International Conference on English Language Research on Computerized Corpora (ICAME 23)*, edited by Karin Aijmer and Bengt Altenberg. Göteborg. 39–59.
- Sinclair, John. 2005. “Corpus and Text – Basic Principles.” *Developing Linguistic Corpora: A Guide to Good Practice*, edited by Martin Wynne. Oxford: Oxford Books. 1–16.
- Siraisi, Nancy G. 1990. *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice*. Chicago: University of Chicago Press.
- Slack, Paul. 1979. “Mortality Crises and Epidemic Disease England 1485–1610.” *Health, Medicine and Mortality in the Sixteenth Century*, edited by Charles



- Webster. Cambridge: Cambridge University Press. 9–60.
- Sperberg-McQueen, C. M. And Lou Burnard (eds.). 1994. *Guidelines for Electronic Text Encoding and Interchange (TEI P3)*. <http://etext.virginia.edu/TEI.html>.
- Sperberg-McQueen, C. Michael. 1991. “Text in the Electronic Age: Textual Study and Text Encoding, with Examples from Medieval Texts.” *Literary and Linguistic Computing* 6.1: 34–46.
- Stannard, Jerry. 1982. “Rezeptliteratur As Fachliteratur.” *Studies in Medieval Fachliteratur*, edited by William Eamon. Brussels: Omirel. 59–73
- Swales, John M. 1990. *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.
- Swales John M. 2004. *Research Genres: Explorations and Applications*. Cambridge: Cambridge University Press.
- Taavitsainen, Irma. 1994. “On the Evolution of Scientific Writings from 1375 to 1675: Repertoire of Emotive Features.” *English Historical Linguistics 1992*, edited by Francisco Moreno-Fernández, Miguel Fuster and Juan José Calvo. Amsterdam & Philadelphia: John Benjamins Publishing Company. 329–342.
- Taavitsainen, Irma. 2001. “Changing Conventions of Writing: The Dynamics of Genres, Text Types, and Text Traditions.” *European Journal of English Studies* 5.2: 139–150.
- Taavitsainen, Irma. 2002. “Historical Discourse Analysis: Scientific Language and Changing Thought-styles.” *Sounds, Words, Texts and Change. Selected Papers from 11 ICEHL, Santiago de Compostela, 7–11 September 2000*, edited by Teresa Fanego, Belén Méndez-Naya and Elena Seoane. Amsterdam & Philadelphia: John Benjamins Publishing Company. 201–226.
- Taavitsainen, Irma. 2004. “Genres of Secular Instruction: A Linguistic History of Useful Entertainment.” *Miscelánea: A Journal of English and American*



- Studies* 29: 75–94.
- Taavitsainen, Irma. 2009. “The Pragmatics of Knowledge and Meaning: Corpus Linguistic Approaches to Changing Thought-styles in Early Modern Medical Discourse.” *Corpora: Pragmatics and Discourse*, edited by Andreas H. Jucker, Daniel Schreier and Marianne Hundt. Amsterdam and New York: Rodopi. 37–62.
- Taavitsainen, Irma. 2011. “Dissemination and Appropriation of Medical Knowledge: Humoral Theory in Early Modern English Medical Writing and Lay Texts.” *Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 94–114.
- Taavitsainen, Irma and Päivi Pahta. 1998. “Vernacularisation of Medical Writing in English: A Corpus-Based Study of Scholasticism.” *Early Science and Medicine* 3.2: 157–185.
- Taavitsainen, Irma and Päivi Pahta. 2004. *Medical and Scientific Writing in Late Medieval English*. Cambridge: Cambridge University Press.
- Taavitsainen, Irma and Susan Fitzmaurice. 2007. “Historical Pragmatics: What It Is and How to Do It.” *Methods in Historical Pragmatics*, edited by Susan Fitzmaurice and Irma Taavitsainen. Berlin and New York: Mouton de Gruyter. 11–36.
- Taavitsainen, Irma and Päivi Pahta. 2011. *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press.
- Taavitsainen, Irma, Peter Murray Jones, Päivi Pahta, Turo Hiltunen, Ville Marttila, Maura Ratia, Carla Suhr and Jukka Tyrkkö. 2011. “Medical Texts in 1500–1700 and the Corpus of Early Modern English Medical Texts.” *Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 9–29.
- Tannenbaum, Samuel A. 1930. *The Handwriting of the Renaissance*. New York:



Columbia University Press.

- Tanselle, G. Thomas. 1983. “Classical, Biblical, and Medieval Textual Criticism and Modern Editing.” *Studies in Bibliography* 36: 21–68.
- Tanselle, G. Thomas. 1995. “The Varieties of Scholarly Editing.” *Scholarly Editing: A Guide to Research*, edited by David C. Greetham. New York: The Modern Language Association of America. 9–32.
- Tanselle, G. Thomas. 2009. *Bibliographical Analysis: A Historical Introduction*. Cambridge: Cambridge University Press.
- Tavormina, M. Teresa. 2005. “The Twenty Jordan Series: An Illustrated Middle English Uroscopy Text.” *ANQ* 18.3: 43–67.
- Taylor, Lita, Geoffrey Leech, and Steven Fligelstone. 1991. “A Survey of English Machine-readable Corpora.” *English Computer Corpora. Selected Papers and Research Guide*, edited by Stig Johansson and Anna-Brita Stenström. Berlin and New York: Mouton de Gruyter.
- The Málaga Corpus of Early Modern English Scientific Prose.*
<http://modernmss.uma.es>.
- Thompson, Sandra A. 1983. “Grammar and Discourse: The English Detached Participial Clause.” *Discourse Perspectives on Syntax*, edited by Flora Klein-Andreu. New York: Academic Press. 43–65.
- Tognini-Bonelli, Elena. 2001. *Corpus Linguistics at Work*. Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Tognini-Bonelli, Elena and John Sinclair. 2006. “Corpora.” *Encyclopedia of Language and Linguistics*, edited by Keith Brown. Amsterdam: Elsevier. 206–219.
- Tognini-Bonelli, Elena. 2010. “Theoretical Overview of the Evolution of Corpus Linguistics.” *The Routledge Handbook of Corpus Linguistics*, edited by Anne O’Keeffe and Michael McCarthy. London and New York: Routledge. 14–27.

- Toyota, Junichi. 2005. "Politeness and Distancing Device in the Passive and in Indefinite Pronouns." *Opening Windows on Texts and Discourses of the Past*, edited by Janne Skaffari, Matti Peikola, Ruth Carroll, Risto Hiltunen and Brita Warvik. Amsterdam and Philadelphia: John Benjamins Publishing Company. 319–342.
- Trosborg, Anna. 1997. "Register, Genre and Text Type." *Text Typology and Translation*, edited by Anna Trosborg. Amsterdam and Philadelphia: John Benjamins Publishing Company. 3–24.
- Vallins, George Henry and Donald C. Scragg. 1965. *Spelling*. André Deutsch.
- Vanhoutte, Edward. 2004. "An Introduction to the TEI and TEI Consortium." *Literary and Linguistic Computing* 19.1: 9–16.
- Voigts, Linda E. 1979. "Anglo-Saxon Plant Remedies and the Anglo-Saxons." *Isis* 70.2: 250–268.
- Voigts, Linda E. 1982. "Editing Middle English Texts: Needs and Issues." *Editing Texts in the History of Science and Medicine*, edited by Trevor H. Levere. New York and London: Garland Publishing. 39–68.
- Voigts, Linda E. 1984. "Medical Prose." *Middle English Prose: A Critical Guide to Major Authors and Genres*, edited by A. S. G. Edwards. New Brunswick and New Jersey: Rutgers University Press. 315–336.
- Voigts, Linda E. 1995. "A Doctor and his Books: the Manuscripts of Roger Marchall (d. 1477)." *New Science out of Old Books: Studies in Manuscripts and Early Printed Books in Honour of A. I. Doyle*, edited by Richard Beadle and A. J. Piper. Aldershot: Scolar Press. 249–314.
- Wear, Andrew. 2000. *Knowledge and Practice in English Medicine, 1550–1680*. Cambridge: Cambridge University Press.
- Weiner, Edmund (ed.). 1999. *Oxford English Dictionary on CD-ROM*. Version 2.0. 2nd ed. Oxford.
- Whalley, Joyce Irene. 1969. *English Handwriting 1540–1853*. London: Her Majesty's Stationery Office.



- Wilson, Andrew and Paul Rayson. 1993. "The Automatic Content Analysis of Spoken Discourse." *Corpus-based Computational Linguistics*, edited by Clive Souter and Eric Atwell. Amsterdam: Rodopi. 215–226.
- Wrightson, Keith. 1982. *English Society, 1580–1680*. London: Hutchinson Publishing Group.
- Yáñez-Bouza, Nuria. 2015. *Grammar, Rhetoric and Usage in English: Preposition Placement 1500–1700*. Cambridge: Cambridge University Press.
- Young, John and P. Henderson Aitken. 1908. *A Catalogue of the Manuscripts in the Library of the Hunterian Museum in the University of Glasgow*. Glasgow: James Maclehose and Sons.

