On Some Early Translations at the Beginnings of English Technical Writing

DANIELA DOBOS
(*Iasi*)

Several scholars who have dealt with the history of early English technical writing have argued that the 14th century poet Geoffrey Chaucer, most widely known today as the author of *The Canterbury Tales*, should also be seen as the first technical writer in English. Freedman (1961: 22) appears to be the first historian of technical writing explicitly to advance the claim that Chaucer was a prototypical modern technical writer, who incorporated practically every one of the rules for a good instruction manual in his *Treatise on the Astrolabe*. Apparently this notion derives from a 1929 pronouncement by the noted historian of science R.T. Gunther. It can nevertheless be argued, with support from historians of English prose (Chambers 1932; Gordon 1966), that relatively unadorned, speech-based writing was used in translations and quotidian texts from the time of King Aelfred (A.D.877) on.

The history of early English technical writing, then, may be much more complex than one would expect, and the slow evolution of technical communication should be considered as taking place across a broad spectrum of both celebrated and uncelebrated writers-translators. It can also be shown that both Old and Middle English technical texts resemble modern technical writing not only in style but also at the discourse level and that early English technical writers-translators organized texts and adjusted their contents to meet the needs of specific audiences, just as do authors of technical documents today. This should also correct the misapprehension that proper technical writing began only in the age of Bacon and the Royal Society or developed from military manual production during World War II.

The beginnings of English technical writing are to be found alongside the beginnings of other kinds of writing in the vernacular in the Old English period. However, little scholarship on the early history of technical writing in English considers this as a possibility. Basquin (1981: 22) writes: "All early writing on serious matters was in a classical language, generally Latin and Greek, and to lesser extent Arabic and Hebrew. The monk Byrthferth composed an encyclopedic manual of 11th century science – chronology, astronomy, arithmetic, metre, rhetoric and ethics – but he wrote in Old English or Anglo-Saxon, a language as foreign to us today as German".

Nevertheless, ethical writing that parallels this corpus of documents in content and is contemporaneous with it appeared in other vernaculars as well, such as Anglo-Norman and Middle French (Hagge, 1990: 281), while the Old English language is one of the earliest European vernaculars to have developed a tradition of scientific, technical and legal prose, some of which is characterized by extremely competent writing. Furthermore, according to Ian Gordon (1966: 13), "what appears on first glance a 'foreign' language is seen on closer examination to coincide in many essential features with the language of today". All of this and other further arguments serve to disprove assertions such as those by Graddol, Leith and Swann (1996: 172-3), according to whom original science was not done in English until the second half of the seventeenth century, a situation which was to do with "the linguistic inadequacy of English in the early modern period".

The most important of these essential features are a core vocabulary of very commonly used words, the retention of the typical Germanic pattern of stressed syllables and certain characteristic structural patterns for phrases and sentences. Although Old English prose is notable for its variety, it is utilitarian prose, including "rudimentary Scientific, Medical and Astronomical works, Herbals and Lapidaries" that preserves these patterns most faithfully (Gordon 1966: 35-44). Hence, almost by definition, Old English prose was technical prose – "an extremely effective medium of communication capable, for example, of recording facts and events and observations accurately and economically" (1966: 35).

One of the essential jobs of Old English prose was the communication of instructions. Three important groups of manuscripts have survived recording prose of this type, namely medical and 'scientific' manuscripts, the corpus of Anglo-Saxon law, and the extant manuscripts of Anglo-Saxon wills and charters. None of the writers of this type of material shows any signs of the study of the literary devices of medieval rhetoric; they are concerned solely with the problem of

accurate communication; for this they use a language and a sentence structure derived directly from the speech of their times.

Byrthferth's manual is in fact by no means the only example of Old English technical writing that could be cited. Many more examples of such writing exist, treated in the specialist literature on Old English prose, but of the historians of technical writing apparently only Hagge explicitly refers to Old English sources. As he points out, Bald's *Leechbook*, for instance, containing herbal remedies and relatively sophisticated surgical procedures", has been "intelligently compiled for practical use" (1990: 282) by an author who translated and combined various Latin sources for his Anglo-Saxon audience. This work, then, exemplifies technical writing in the same way Basquin claims that Chaucer did in *The Astrolabe*: "he used at least two sources, rearranged and combined their work with some contributions of his own, and adapted his language to his audience. In short, he was a technical writer" (1981: 23).

The technically sophisticated *Leechbook* is the oldest medical work to survive in a European language other than Greek or Latin. From the viewpoint of the history of English technical writing, the work is interesting for several reasons. Like most technical manuals today, it contains a detailed table of contents with outlines of its various chapters; the author-translator typically prefaces each chapter with an introductory statement of contents. The follow "recipes for medicines to treat the ailment and often a description of symptoms, causative factors, regimens of diet and diagnostic details" (Hagge 1990: 283). Hagge also stresses Bald's expertise in combining various Latin sources into a coherent whole adapted to his English readers. In other words, Bald composed just as technical writers are taught to work today: he selected and integrated diverse sources, translated them to meet the level of sophistication of his audience, and adapted them to current conditions with which his audience was familiar, for instance, he consistently replaced the exotic perishable ingredients mentioned in his Latin exemplars with native, non-perishable ones.

Statements that nominate Chaucer as the first technical writer in English need to be qualified to reflect the actual state of technical writing in 14th century England, especially considering the problems of dating that occur in the case of medieval manuscripts. Chaucer's authorship of *A Treatise on the Astrolabe* itself cannot be conclusively proved, although the manuscript tradition supports it, and its date also is uncertain (Hagge 1990: 271); authorities, nevertheless, generally date the treatise from 1391 to 1395. Chaucer projected a work in five parts but completed only the first two. Part I describes the device itself, the name of which means

'star-catcher', and is designed to assist calculations of the apparent positions in the heavens of the sun and the stars (Price 1955: 30). Part II presents 46 'conclusions' or astronomical problems to be solved using the astrolabe. Some authorities claim that Chaucer adapted his allegedly plain technical style to readers of the treatise in a singular manner and that his technical writing methods are unique for the period in other ways as well (Freedman 1961).

It appears nevertheless that claims for Chaucerian priority in early English technical writing need to be reconsidered, since a tradition of technical writing also exists in Old English, although most historians of technical writing do not recognize this; moreover, Middle English works similar to *The Astrolabe* in date and contents do exist (Hagge 1990: 272), although these have generally been ignored by previous historians of technical writing.

One such work, which appears in a Cambridge University Library manuscript and is similar in many ways to *The Treatise*, has been dubbed *The Equatorie of the Planetis* (Price 1955). It describes the construction and use of a special instrument – in Latin, 'equatorium' – designed to calculate the positions of the planets, and it has considerable claim to attention by virtue of its astronomical subject-matter and also because this unusually technical material is presented in Middle English instead of the medieval Latin which was in use at that date for scholarly writings (1955:3). Although Price believes the manuscript is Chaucer's holograph, the consensus of opinion questions this view (Hagge 1990: 273).

Like *The Astrolabe, The Equatorie of the Planetis* apparently derives from Arabic sources via Latin, from which it was translated into Middle English. Its writing is technically proficient; for clarity, though dry, it bears comparison with Chaucer's – "the text gives so much attention to fine practical detail that there is little room for doubt as to the fact that the translator was his own instrument maker" (North 1998: 164).

Indeed, vernacular writers-translators of science in England during the 14th century seem to have been preoccupied with instrumental tracts. This can be considered in conjunction with another 14th century Middle English manuscript discovered by Price, treating the construction and use of a complex scientific instrument. This, "one of the most ingenious and sophisticated mathematical artifacts of the Middle Ages" (Price 1960: 399), is a portable sundial named *The Little Ship of Venice* (Latin 'navicula de Venetiis). Written at much the same time and in the same style and dialect as *A Treatise on the Astrolabe* but without direct Chaucerian connections (1960: 401), the manuscript contains translations of several astronomical and astrological texts into English. Elsewhere, Price deems this manuscript the

best scientific corpus in Middle English (1955: 197). This Middle English translation of an original Latin text, then, offers still more proof that a tradition of vernacular technical writing existed in 14th century England.

Still another piece of Middle English technical prose predating *The Treatise* is an anonymous ME translation of the *Exafrenon* of Richard of Wallingford, composed about 1385 (Price 1955: 203). Hagge considers it among the more important English prose treatises on astronomy written in the Middle English period (1990: 275). Underpinned by the astrological thinking so prevalent in those times, this technical manual deals with methods for predicting the weather. Experts claim that such works translated into Middle English about scientific instruments or about allied technical subjects are written in a plain, efficient technical style, adapted to readers with little or no Latin. Furthermore, they either antedate Chaucer's *Treatise* or are contemporaneous with it.

That technical treatises in the vernacular were greatly desired in 14th century England is nowhere more evident than in the case of medical writing. Academic medical constitutes the first large body of highly technical prose to be translated into English – "Medical writings represent the first substantial body of university texts to be Englished [...] While theology remained essentially Latin and law remained Latin and legal French, considerable medical writing of some intellectual weight was translated from the last third of the fourteenth century" (Voigts 1984: 372). The quantity of these works, between eighty and ninety, is quite impressive, considering the exigencies of manuscript production during that period.

Two works, both antedating *The Astrolabe*, are well known to specialists on Middle English prose but not mentioned in histories of early English technical writing. One of these is John Love's translation of the *Liber Floridus* attributed to Macer, a pharmaceutical handbook "*tornyd into ynglis*" in 1373. The other, Henry Daniel's *The Dome of Urines*, is another translation from 1377. Since uroscopy was highly regarded as a medical technique in medieval England, this latter translation appeared in numerous versions (Hagge 1990: 276). The first surgical manual composed in English dates from 1398, roughly contemporaneous with *The Astrolabe*. An earlier work on the same subject, a translation into Middle English of the highly regarded surgical treatise of Lanfranc of Milan, was written about 1380. Another translation into Middle English of a continental surgical treatise, Henri of Mondeville's *Chirurgie*, was made in 1392. A Middle English translation of the specialized surgical treatise *Fistula in Ano*, which was originally written in Latin by the English practitioner John Arderne, cannot be dated as precisely, but is thought to have been compiled after 1370 (1990: 276).

Such evidence also indicates that relatively technical medical knowledge had diffused quite widely in 14th century England and had begun to be translated and recorded in the vernacular as well as in Latin. Hundreds of recipes are found scribbled on unused flyleaves in all kinds of manuscripts. Collections of Middle English medical recipes from the 13th and 14th centuries are listed in the *Index of Printed Middle English Prose.*

Another persuasive argument about the need for technical writers-translators to translate Latin medical tracts into the vernacular of Ricardian England is made by implication in a study of a late 14th century technical manual on phlebotomy, dated to circa 1400, which makes it roughly contemporaneous with *The Astrolabe* (Hagge 1990: 227). The style and overall construction of this translation, *Of Phlebotomie*, resemble Chaucer's treatise, believed by many commentators to have anticipated modern rules for effective technical writing.

For instance, Chaucer has been commended for summarizing for readers the organization and contents of his treatise (Freedman 1961: 14; Basquin 1981: 22), since such preparation for readers is claimed to be unusual in the Latin technical treatises and their vernacular translations. However, both the original Latin and the Middle English translation of the technical phlebotomy manual begin with an explicit statement of purpose that also outlines the organizing principles of the text. More important, the manuscript compendium of scientific and medical writing of which the phlebotomy treatise is a part apparently is addressed to a specific audience, just as Chaucer's treatise supposedly is addressed to his son Lewis. The introductory passage says that the compendium was translated in an era lacking wise physicians, by someone named Austin, for a London barber-surgeon, Thomas Plawdon (Hagge 1990: 278). If Chaucer is noted for his supposedly unique early attempt to make highly technical material accessible to readers with little expertise (Freedman 1961: 15; Basquin 1981: 24), in the case of the manuscript containing *Of Phlebotomie* there is a whole compendium of intelligently translated and compiled scientific and medical writings, written expressly to convey such technical materials to a relatively non-specialist audience (Hagge 1990: 278).

Most medical and astronomical-astrological writing probably occurs between 1400-1500 (Voigts, 1984). If works on cartography and voyages of discovery are included in histories of technology, then another sizeable body of technical writing in Middle English needs to be added to the list, a quarter of which antedates 1400. Other utilitarian and scientific prose translated/written during the Middle English period includes lapidaries, technical works on grammar and arithmetic, practical musical treatises, rules for conduct, military manuals and other types of instructio-

nal manuals. Alchemical and proto-chemical works, which have received the least attention in proportion to their number of extant Middle English prose manuscripts, should also be included here. Such utilitarian prose, enormously popular during the 14th and 15th centuries, is not included in histories of early English technical writing either.

The evidence noted in this study, then, suggests that technical texts representing a wide variety of genres, many of which antedate *The Astrolabe,* were translated/written in Old English and in Middle English. The expert opinions cited show that a number of these texts exhibit the same stylistic value some commentators find in Chaucer's treatise; Gordon, on the other hand, finds Chaucer's technical prose wanting when compared to that of Old English medical works – "the *Treatise on the Astrolabe* (when one compares it with the crisp expositional prose of the Anglo-Saxon *Leechdoms*) has the stop-and-start movement of so much of the Frenchified prose of his time" (Gordon 1996: 54). More important, these Old and Middle English technical texts demonstrate as well that the principles of organization and audience adaptation practiced in technical writing today were known in the Middle Ages. R.W. Chambers asserts that "if English prose has any known father, that father is Aelfred AEthelwulfing (1932: vi), the great English king (849-899), who envisioned a system that would make all free men in his kingdom literate in English (Hagge 1990: 285). To accomplish this goal, Aelfred himself translated a number of works from Latin into Old English and commissioned the translation of others. Bald's *Leechbook* dates from this time, and its composition may have been inspired by its author's desire to take part in the Aefredian renewal of learning. Since this work exhibits a number of the desiderata for proficient technical writing, probably it and not Byrthferth's *Manual* (1011) or Chaucer's *Treatise on the Astrolabe* deserves the title of the first fully developed, prototypically modern technical text in English (see also Hagge 1990: 285).

A massive amount of work needs to be done in order to document fully the rise of technical prose in English. The essence of technical writing may well be the translation of often abstruse, highly complex material into a form understandable by readers with only a modicum of expertise in a topic. As Hagge points out, comparing Latin and English medical texts allows us to learn something of the difficulties that English translators faced as they tried to turn technical medical scientific Latin prose into the vernacular. The same might be said for investigating the history of English technical writing from before 900 to 1600, the seven hundred year span when the salient characteristics of English technical prose were hammered out.

Literature

Basquin E.A., 1981, *The First Technical Writer in English: Geoffrey Chaucer*, "*Technical Communication*", 28: 3.

Brockmann R.J., 1983, *Bibliography of Articles on the History of Technical Writing*, "Journal of Technical Writing and Communication", 13: 2.

Chambers R.W., 1932, *On the Continuity of English Prose from Alfred to More and His School,* Oxford University Press, London.

Dobos D., 2000, *On the First Technical Writings in English.* – From *Margin to Centre,* Papers from the Colloquies of the English Department, Universitas XX, Iasi.

Freedman W.A., 1961, *Geoffrey Chaucer, Technical Writer'*, "*Society of Technical Writers and Publishers review,* 8: 4.

Gordon I.A., 1966, *The Movement of English Prose*, Indiana University Press, Bloomington.

Graddol D., D. Leith and J. Swann, 1996, *English. History, Diversity and Change,* Routledge, London & New York

Hagge J., 1990, *The First Technical Writer in English: A Challenge to the Hegemony of Chaucer*, "Journal of Technical Writing and Communication", 20: 3.

North J.D., 1988, *Chaucer's Universe*, Oxford University Press, London.

Price D.J., 1955, *The Equatorie of the Planetis, edited from Peterhouse MS.75.I,* Cambridge University Press.

Price D.J., 1960, *The Little Ship of Venice – A Middle English Instrument Tract'*, "Journal of The History of Medicine and Allied Sciences", 15.

Rogers P., ed., 1990, *The Oxford Illustrated History of English Literature*, Oxford University Press, Oxford – New York.

Voigts L.E., 1984, 'Medical Prose', in *Middle English Prose: A Critical Guide to Major Authors and Genres,* A.S. Edwards, ed., Rutgers University Press, NJ.

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A series of well-known histories and bibliographies of technical writings in English begin from the premise that start with *A Treatise on the Astrolabe* by the English poet Geoffrey Chaucer. Nevertheless, it can be shown that there is a notable tradition of practical technical writings – translations and adaptations of Latin and Arabic sources – both in Old and Middle English, which pre-date or are contemporary with Chaucer's. A number of their characteristics, especially structural, seem to anticipate similar traits of contemporary scientific and technical discourse.

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