MAGIFEROUS PLANTS IN MEDIEVAL

ENGLISH HERBALISM

by

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ABSTRACT

MAGIFEROUS PLANTS IN MEDIEVAL ENGLISH HERBALISM

Martha S. Weil

This study examines thirteen English vernacular medical texts, dating from approximately the tenth to the fifteenth centuries, for evidence of magiferous healing plants. Magiferous, or "magic-bearing," plants are those which have both mundane and magical uses.

Magical medical action is often difficult to distinguish from mundane healing with certainty in these texts, owing to the ambiguity of many of the recorded elements and perhaps also to a lack of contextual continuity from their time to ours. Certain characteristics are found to be particularly indicative of magical action, however. Most notable among these are numbers, especially three and nine, colors, times of day or year, and a variety of ritual practices associated with the gathering and preparation of the herbal materials. Magical means of healing are also found to be particularly associated with such diseases as: certain types of fevers; battle wounds; epilepsy and insanity; poisons and

contagious diseases. Magical means are used apotropaically against the actions of supposed occult or supernatural agents, as well as for curative purposes.

This study finds that magiferous plants are widely distributed across the time-span covered by the texts examined. Perhaps as many as one third of the species used medicinally are magiferous. The study includes a detailed analysis of thirteen such plants and a list of all species identified as magiferous.

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CHAPTER 1

Introduction

Magic has played a part in medical therapy from the beginning of history. The earliest written records of Western civilization demonstrate that magical means were being used to treat disease and infirmity as long as 4000 years ago.[1] Since religion and magic were closely allied in ancient times, the sacred dimensions of experience have been involved in healing from the beginning, also. Castiglioni even observes that, in monotheistic religious systems, "the function of healing belongs to divinity alone."[2]

While the priest-physician is a familiar figure in accounts of ancient medical practices, histories of medicine written before the end of World War II have tended to emphasize elements other than the magical. Traditional medical history has concerned itself with "the ideas shaping medical practice, the evolution of specialized medical disciplines, and the diseases with which mankind has been afflicted."[3] Such histories have tended to be written not by academic historians but by those trained originally as physicians, and they have tended, since the nineteenth century, to be

written from a viewpoint stressing the idea of scientific progress, seeking in the record of the past intimations of discoveries and revolutions which were to come.[4]

It is only in the latter half of the twentieth century that this approach, dominated by studies of great medical men and their ideas, has begun to change. Increasingly, medical history is being assimilated into the mainstream of academic study and is coming to reflect the concerns of a more broadly-based historical discipline. One effect of this change is that medical history, along with much academic history generally, is presently being studied in the context of popular culture. The folk beliefs and practices, including magical ones, of lay healers are now increasingly the legitimate concern of historians of medicine.[5]

The studies of anthropologists and folklorists have long been concerned with folkways, and this body of work has come more and more to the attention of historians since the second World War, shedding light on many aspects of folk culture. Regardless of their disciplinary allegiance, those who have studied the history of medicine among such groups as the Anglo-Saxons, for example, have necessarily devoted much attention to magical medical practices since

these were prevalent among such groups. The antiquarian Oswald Cockayne, historians James Grattan and Charles Singer, and folklorists Felix Grendon and Wilfred Bonser have all written important works on the role of magic in very early English medicine.

The connections between magic and medicine have also been studied by Lynn Thorndike. Beginning in the 1920s and continuing for over thirty years, he has made a massive and famous study of the magical origins of experimental science generally. His History of Magic and Experimental Science traces this evolution in eight volumes, beginning with ancient Greece and culminating with the Scientific Revolution of the sixteenth century. His discussions of magic and medicine encompass much of Western civilization.

Recently, some more narrowly-focused work has appeared on magic as part of the developing theoretical framework of medieval medicine.[6] However, there is to date very little work which explores the persistence of magical practices in medieval English medicine specifically. Kealey's Medieval Medicus, Rubin's Medieval English Medicine, and Talbot's Medicine in Medieval England all emphasize School medicine and have little to say about the role of folk tradition or magic after the end of the Anglo-Saxon period.

The present study will address this issue. It proposes to examine vernacular texts which were available in England from approximately the tenth to the fifteenth centuries and which contain information about the practice of herbal medicine during that time. The specific focus of this study is the exploration of the idea of magiferous plants in these texts.

The concept of magiferous or "magic-bearing" plants was introduced by Jerry Stannard in a discussion of classical and medieval medical botany.[7] Stannard distinguishes three kinds of plants in this literature. The first, which he refers to as magical plants, exist only in imagination. These are the sort of plants encountered in fairy tales and romances, which confer on their possessors many amazing powers--the ability to fly, for example, or to be cured instantly of mortal wounds. The plant which Puck found for Oberon and which caused so much confusion in A Midsummer Night's Dream is one example of such a plant. A second sort of plant described by Stannard is one which has no magical attributes or uses at all. These plants, the majority of all medicinal herbs, exist in the material world and are the ingredients in numerous non-magical recipes, simple or complex, for the relief of all sorts of

complaints. These plants Stannard refers to as ordinary or mundane.

Stannard's third kind of plant has similarities to each of the others. These are plants which exist in the material world and are often used as mundane plants are used, straightforwardly to relieve various ills. The characteristic which sets these plants apart is that, in addition to their ordinary uses, they can, if the proper magical conditions are met, be made to undergo a transformation and become bearers of powers like those of imaginary magical plants. Cinderella's pumpkin might be an example of such a plant. It begins as an ordinary garden vegetable, but when the correct wand-waving and spell-weaving are applied, it is dramatically changed and acquires decidedly unpumpkinlike powers. To describe such plants, Stannard has coined the term "magiferous."

Stannard's paper on magiferous plants ranges over classical and medieval times, tracing this idea through the literature of the materia medica. It identifies many magiferous plants and provides a detailed account of one of them, verbena, as an illustrative example. The present study proposes to apply Stannard's definitions to a more restricted body of writing, and to consider several questions raised by the idea of magiferous plants in this narrower

context. The first task is to determine whether magiferous plants are to be found in the vernacular literature of medieval English herbal medicine at all, and if so, to ascertain which plants can be identified as magiferous.

The following questions will also be addressed. Do magiferous plants play a significant role in medical therapy during the time period being studied? Can they be distinguished from magical and mundane plants as Stannard's definitions predict? In other words, is Stannard's definition adequate for this literature, or does it require modification? Are certain practices characteristic of magiferous ritual? If so, what are they? Are there certain complaints for which magiferous plants are used consistently or even exclusively in therapy? If so, what are they? Are magiferous plants to be found throughout the time-span of the study? Are they more prevalent at certain times than others? Which traditions are the sources of magiferous plant lore?

It may not be possible to give equally detailed or equally certain answers to all of these questions. Detailed discussions will be offered of some important magiferous plants to illustrate the answers that are given and to enrich the study.

Finally, two appendices are included. Appendix A is a list identifying the texts used as the basis for the study, and Appendix B lists all the species that were found to have magiferous properties of some sort.

NOTES

[1] Arturo Castiglioni, A History of Medicine, trans. and ed. E. B. Krumbhaar, 2nd ed., rev. & enlarged (New York: Knopf, 1958), p. 37.

[2] Castiglioni, p. 65.

[3] Roderick E. McGrew, Encyclopedia of Medical History (New York: McGraw-Hill, 1985), p. 175.

[4] McGrew, p. 176.

[5] McGrew, pp. 177-178.

[6] See for example John M. Riddle, "Theory and Practice in Medieval Medicine," Viator, 5(1974), 157-184, and Jerry Stannard, "The Theoretical Bases of Medieval Herbalism," Medical Heritage I(1985), 186-198.

[7] Jerry Stannard, "Magiferous Plants and Magic in Medieval Medical Botany," Maryland Historian 8(1977), 33-46.

CHAPTER 2

Sources of Medical Knowledge in Medieval England

Medical knowledge and practice in medieval England was a blend of many ingredients. Both scientific ideas and superstitious notions from classical antiquity were important. Native Teutonic and Norse pagan traditions were very influential during the Dark Ages, and traces of them could still be found in Middle English texts five hundred years later, albeit in Christianized form. The doctrines and ideology of Christianity as well as the practices and edicts of the Church affected medicine as they did all aspects of life in the Middle Ages. Elements of lesser importance included Late Latin or Hisperic sources, Celtic pagan traditions, and Arabic and Hebraic contributions.[1] All of these strains can be found to varying degrees in the texts examined for this study. A brief summary of their characteristics will help to provide a context for the larger argument of this paper and a framework for the discussion of individual texts to follow in this chapter.

The Roman occupation of Britain and, according to Singer, early missionary expeditions from Italy[2]

introduced classical medical writings to the region. These were preseved in monastic libraries and, after the withdrawal of Rome, by the universities. Pliny's compendium of classical knowledge, beliefs, and superstitions, the Historia Naturalis, was one particularly well-known and often-cited source. The herbal handbook De Materia Medica, written in approximately the year 50 CE by Dioscorides, a Greek army surgeon, was the most popular and influential such work known to the Middle Ages.[3] Medieval scholars were not familiar with the original Greek text of De Materia Medica, however. They knew Dioscorides at second or even third hand, mostly through the Latin compendia which were often based on Galen's references to Dioscorides' work. The writings of Galen and Hippocrates were also known in England in various forms. Margaret Ogden, in her introduction to the Liber de Diversis Medicinis, says that Galen's system of classifying diseases by the humors in which they were deficient or superabundant, and of treatment based on opposites, became "one of the most powerful influences on medieval medicine."[4]

One problem with tracing classical influences in medieval texts, however, is that the works of ancient authorities were not always kept intact. They were borrowed from heavily, without what is now

considered proper attribution. Also, attaching the name of a famous ancient authority lent weight to any opinion, and "Ypocras," Galienus, Aesculapius or some other personage is frequently credited as the source of a particular remedy, whether or not modern scholars can verify the reference.[5] Another source of confusion in medieval uses of classical medical writings is the fact that texts were often modified as they were copied. This involved not only inadvertent scribal mistranscriptions, but also the deliberate substitution in herbal recipes of local plants for unknown or unprocurable Mediterranean ones. When such local remedies were added to works of ancient authority, they obtained the authority themselves in later replications of the work. As texts were copied and altered in these ways at various locations and over time, with altered texts serving as the basis for successive and perhaps further-modified ones, precise consistency was lost among the various versions of De Materia Medica or Historia Naturalis in use throughout medieval Christendom.[6] Despite these confusions and difficulties, the classical tradition formed the backbone of medical knowledge throughout the Middle Ages in England and Europe generally.

Another source of classical medical information in medieval England was the material produced by the

Late Latin, or Hisperic, writers. Also known as the post-Galenic or post-classical writers, they were active during the sixth through the ninth centuries and include, for example, Sextus Placitus (fl. 370), Apuleius Barbarus (fl. 400), Oribasius Pergamenos (d. 403), Marcellus Empiricus (fl. 425), and Paul of Aegina (d. 690). They are important primarily as compilers of existing Greek and Roman knowledge, as Pliny was, rather than as theoreticians in their own right, as Hippocrates and Galen had been. The value of their contributions to the development of medical science appears to be controversial. Bonser, for example, dismisses Marcellus Empiricus with the claim that he is "chiefly noteworthy as marking the depth of futility to which 'medicine' descended,"[7] while Ogden credits the post-Galenics with adding "new recipes to the Galenic canon" and says that "they did much to establish the conventional features of medieval recipe collections."[8] Thorndike in his chapter on "Post-classical Medicine"[9] argues that this group forms a bridge between classical and medieval medical knowledge, digesting the diverse Greek medical writings into more manageable compendia and introducing Christian symbolism into the classical pagan writings. He also gives details of the magical and superstitious elements to which Bonser objects and

finds possible traces of Celtic as well as classical traditions in these.

The significance of the post-Galenic writers to medieval English medicine is also uncertain. Grattan and Singer think that Marcellus Empiricus' work De Medicamentis was probably not itself known in England, but some of its recipes do occur in Anglo-Saxon sources, probably by way of other, similar works. They also note that the Late Latin antidotaria, produced during the sixth through the twelfth centuries but based on earlier material, have not been systematically examined for their influence on Anglo-Saxon medicine.[10]

Another possible source for the survival of classical medical learning in England was the medical school at Salerno. Although no direct links have been traced to connect Salerno to England until much later, Charles Singer was convinced that Salernitan influence can be identified even in English medical works from the Anglo-Saxon period.[11]

Regardless of their means of transmission, classical medical writings can be characterized by several features. Although there is some magical or superstitious material, particularly from Pliny and the post-Galenics, classical writings are usually quite practical and straightforward. Their recipes

are often complex, involving many ingredients; and of course, some of these would be plants not native to Britain and likely to be unknown and unavailable there. Dietary concerns and health regimens are also commonly a part of classical medical writings.

Besides the classical traditions of ancient Greece and Rome, the lore of various Teutonic and Celtic peoples was an important component of medicine in medieval England. Germanic tribes from the European continent began to invade and settle in Britain sometime in the early fifth century, but because their culture was initially an oral one, the first written medical source we have from them is the Leech Book of Bald, which dates from the first half of the tenth century. This text is notable as both "the earliest extant English book dealing with the virtues of herbs" and "the earliest medical book in the vernacular tongue in Europe."[12]

Nevertheless, the Leech Book and other important Anglo-Saxon medical texts, whether in Latin or Old English, are not records of Anglo-Saxon medical beliefs and practices only. They invariably include much classical material, as well as Norse Teutonic and Irish Celtic elements; and, by the time they came to be written down, they had been heavily influenced by Christianity.[13] Celtic and Norse influences

detectable in medieval English medicine are most evident in the Anglo-Saxon period. Many exorcism charms, often in an apparently very garbled form, seem to be of Celtic origin, according to Grattan and Singer.[14] Norse Teutonic influences are more difficult to detect owing to the similarity of the Viking and Anglo-Saxon cultures. Also, since the Vikings began settling permanently in England during the ninth century, their folk-beliefs would have had some opportunity to become amalgamated with those of the resident Anglo-Saxons before any of our existing records were produced. The traditions of both of these pagan groups experienced the same Christianizing changes as did the Anglo-Saxon and classical pagans.

In general, the Anglo-Saxon medical material can be distinguished from the classical by the greater simplicity of its recipes. Preparations of individual herbs, called simples, are common, as are concoctions of only a few ingredients. Magic is an essential component of most, if not all, Anglo-Saxon remedies, in contrast to the more practical orientation of classical medicine. Also, the Anglo-Saxons rely mostly on drugs for correcting disease conditions and pay virtually no attention to dietary concerns.[15]

The Christian Church was the third major influence on medieval English medicine. The effect of

the Church was a very complex matter, and many issues connected with it, such as the evolution of hospitals, the varying interactions of monastic, clerical, and secular medical personnel, or the separation of surgery from other medical therapies, are beyond the concerns of this study.[16] One of the Church's most important functions--from the point of view of the history of medicine, at least--was the preservation and dissemination of classical medical writings. However, although the Church possessed these writings, it taught that healing was the result of faith and of God's will rather than any action of "medical arts." Both disease and its cure were held to be of supernatural origin, and various miraculous means were used in treatment. Priests, saints, or their relics were believed to be effective in restoring health, in the same way that Christ had been. Herbs used in cures were blessed by priests or put on the altar during masses, psalms might be sung over them, and holy water was used in many cures.[17] This belief in spiritual causes and cures of disease was common to both the Christian priests and the Anglo-Saxon leeches; and, as Grattan and Singer point out, from the first contact, their "magics" became intertwined.[18] Thus, ironically, the Church actually helped to preserve many pagan magical-medical

traditions, although in a Christianized form. Bonser's enumeration[19] is a good summary of the ways in which Anglo-Saxon charms were made acceptable to the Church:

> The Church's method of converting a pagan charm into a Christian remedy was by adding a few words of Church Latin, or by substituting the name of Christ or of a saint for that of a heathen deity--accompanied by the ever efficacious addition of the sign of the Cross. . . . The times of pagan ceremonies and those of the Church festivals were made to coincide: the heathen feast at the winter solstice became identified with Christmas, that at the summer solstice with the festival of St. John the Baptist, and so on.

In early texts, these substitutions are numerous and usually quite obvious. The Anglo-Saxon charm literature, especially, contains a complete range of examples from purely Anglo-Saxon to fully Christian religious healing rituals. Much of this material can be found in later texts, as well, even though these tend to have in general a less magical "atmosphere," to use Storms' term.

An interesting possibility, and one that needs to be more fully explored, is the idea that the Church may have been responsible for introducing non-native medicinal plants into England. Kealey[20] makes the observation that the monastic infirmary garden at Bury St. Edmunds "presumably" contained plants nonindigenous to Britain in the year 1100, and it is certainly plausible that Church

connections to the Mediterranean region might have made possible the transplantation of some of the herbs known from classical sources to sheltered locations in at least the more southern parts of Britain. This possibility seems not to have occurred to early scholars of medieval English medicine. Singer, particularly, dismisses the presence of Mediterranean plant names in the literature of the time as evidence that the texts must have been "mere literary exercises," of no practical medical use.[21] Intriguing though this possibility is, it could do nothing to reduce the difficulties of making definite identification of plants named in medieval English medical texts.

Arabian influences were very important in the development of medieval School medicine, and for Western intellectual activity generally, especially in the centuries following the year 1000, when the Arabic corpus of medical and other material began to appear in Latin translation throughout Europe. This material consisted of the works of Greek philosophers and natural scientists which had been largely lost to Europe with the fall of Rome, but which had been preserved in Arabic translation and was widely known in the Semitic world. By the time of its re-translation into Latin, it had acquired substantial augmentation in the form of commentaries and analyses by Arab thinkers. The introduction of this material into Christian Europe lead to the formation of the great

universities, founded to study it beginning in approximately 1150. Scholasticism was the rational method developed by the Schoolmen to attempt reconciliation of the pagan classical and Arabic thought it contained with the Christian world view.

Specifically medical Arabic works had begun to appear in Europe by the end of the eleventh century, and Salerno was the center where this material became incorporated into existing European School medicine. Singer points out, however, that many works uninfluenced by Arabian elements continued to be produced in Europe as late as the thirteenth century.[22] The Arabic medical tradition had its origins in the Greek systems of Hippocrates and Galen, but it had progressed independently, and thus it was a source of new recipes for the West. "Elaborate syrups, cyroyns, and electuaries" were typical of Arabic preparations.[23] The Arabic medical writings also referred to a materia medica of Eastern origin, and a new set of foreign plant names came into the literature as a result. Grattan and Singer note that a few Arabic drug names can be found even in Anglo-Saxon medical texts, ginger, for example, and cinnamon, pepper, gallenger, and zedoary.[24] However, they attribute these not to direct Arabian influence but to the Late Latin writers.[25] The presence of aromatic gums, which occur in later English texts,[26] is another indication of Arabian elements in the recipes.

Since these ingredients usually have Greek or Greco-Roman names, however, they may also derive from Late Latin sources. Another possible suggestion of Arabian influence is the occasional mention in later texts of the techniques and apparatus of alchemy.[27]

Arabian authorities, most notably Avicenna and Rhazes, are mentioned occasionally in some of the later texts in this study, indicating that they came to be widely known and respected.[28] However, Arabian influences were strongest among the Schoolmen. They are classed in this discussion as a minor influence because they appear to have had little impact on the more popular kinds of medical practice which are the focus of this study. Some Hebraic influences were doubtless communicated along with the Arabic ones, but many of these are embedded in Christian traditions. They also have little direct bearing on the subject of this study.

It may never be possible to completely disentangle and sort out all of the sources of the medical knowledge and beliefs at large throughout medieval England. The textual record, particularly for the Dark Ages, is incomplete, and many of the sources that do exist remain to be edited and studied.[29] Nevertheless, the major sources as outlined here appear to be firmly established, and they are of most interest to the present study.

With one exception, the texts selected for this study were all available in the vernacular English of their respective times, and as such, they do not represent materials that would necessarily have been used by the most sophisticated medical personnel. While we know most about the practitioners of School medicine,[30] since as a highly literate group they left relatively many written records, we also know that there existed among medieval medical practitioners a range of expertise from that of the court physician steeped in classical theory to that of the village housewife "who had necessarily to prescribe for her family's ailments," presumably from among the herbs in her own garden.[31]

The people who actually used the vernacular texts in this study would obviously have been literate although they may not have been well acquainted with Latin. These texts probably reflect levels of popular medical knowledge intermediate between the practices of School medicine and the lost oral tradition. Interestingly, there are differing opinions among specialists as to how much of the oral tradition has likely been incorporated into these texts. Bonser appears to see a clear separation in Anglo-Saxon times between the knowledge in the ancient books possessed by the Church and "the more practical knowledge of simples that had been handed down by word of mouth" among the folk.[32] Brodin in his introduction to the

Agnus Castus text, dating from the end of the fourteenth century, suggests that the written herbals were used for reference only, as supplements to the oral tradition, where he thinks much information, particularly for identifying medicinal plants, was carried.[33] Ogden, though, in discussing for her text sources of the early to mid-fifteenth century, argues against the idea that the "late vernacular collections" had much connection to the oral tradition. She believes that they are derived from earlier manuscripts that have been lost.[34]

Turning now to the texts which are the basis of this study, it will be helpful to describe them individually in some detail. These particular texts were chosen, in part, because all have been edited by modern scholars and are available in published form. All are listed in Appendix A with full bibliographical information. Four-letter codes have been assigned to the texts for ease of reference in the body of this paper; these are given below and in Appendix A as well.

The number of existing medical manuscripts from the English Middle Ages, at least following the Anglo-Saxon period, is large, and it might be questioned whether the sample here examined is ample enough to be representative and to form a valid basis for drawing conclusions. Actually, although there are many manuscripts which contain medical material, there are far fewer distinct texts. Many

of the manuscripts have common ancestors, and individual recipes, if not large sections of text, reappear frequently in the manuscript literature. Also, some of the editions used in this study are actually compilations of several similar texts occurring in different manuscripts[35] and so represent a wider body of material than might at first be apparent. By choosing texts which have been selected, compiled, edited, and published for use in studying medieval English medicine, this study has followed the guidance of experts in the field. With all of these factors in mind, it seems reasonable to assert that this selection of texts is adequate for this study.

Following is a chronological listing of the texts themselves, with their assigned reference codes and descriptive annotations:

Leech Book of Bald (CLEE 2): This text was written during the first half of the tenth century and includes some material added in "about 1040."[36] It was translated by Oswald Cockayne in 1863. This text has already been described as the "earliest extant English book dealing with the virtues of herbs."[37] Storms incorporated some the the Leech Book material into his study of Anglo-Saxon charms, and he characterizes the Leech Book as more practical than the Lacnunga, its near contemporary, described below. He also distinguishes the two by asserting that the Leech Book

contains mainly classical remedies, while the Lacnunga has more Germanic material. The Christian influence is equally strong in both, he says.[38] The Leech Book is divided into three books, its arrangement is by body parts affected by various disease conditions, from the head more or less downwards, and it is subarranged by symptoms. Ancient authorities are mentioned, and there is some reference to humors,[39] indicating a familiarity with classical Latin ideas. The discussion of dietary requirements for various conditions, particularly in Book II, is further evidence of classical influence. Book III is markedly different from the previous two, showing much more interest in magical remedies for "elf troubles" and "the fiend," these being the Anglo-Saxon and Christian terms, respectively, for the causes of many diseases.

Lacnunga (GSAS): This text, dating from the late tenth to the early eleventh century, has been translated and edited by Cockayne, also, but Grattan and Singer have produced a newer version which was used in this study. The Lacnunga is most important because it contains more Anglo-Saxon pagan material than any other source.[40] It also includes some Irish material, most notably the "Lorica of Gildas," an elaborate spell of protection dating perhaps from the seventh century.[41] The Lacnunga is also arranged by body part, beginning with the head. This is the typical manner of organization of early Western medical texts.

Anglo-Saxon Herbal (CLEE 1): This text was probably written in the early eleventh century. It, too, was translated by Cockayne. It consists of an Anglo-Saxon version of the Herbarium of Pseudo-Apuleuis [Apuleius Platonicus]. The original text was written in Latin, probably before the year 439 CE. The English version differs from the original only in the addition of three plants.[42] The Anglo-Saxon Herbal also includes some thirty-three plants from Dioscorides' De Materia Medica.

"A New Text of About 1110" (SDAT): This text was published by Charles Singer in the Proceedings of the Royal Society of Medicine in 1917. This Latin specimen is the one exception to the selection of vernacular materials for this study. It is included because of the scarcity of material from this time period. It is actually part of an encyclopedic compendium rather than a handbook as most of the other texts examined here are, and Singer says that it "represents the state of knowledge in Europe at the very end of the pre-Scholastic period."[43] He uses it to demonstrate the extent of Salernitan influence on English medicine in the twelfth century.

Macer Floridus de Viribus Herbarum (FMAC): This text is a Middle English translation of a Latin poem, originally written sometime between 849 and 1112, probably by a monk named Odo de Meung, or Odo Magdunensis. The poem was very popular and influential in the Middle Ages. The

famous "Regimen Sanitatis Salernitanum" poem took over one hundred verses from Macer, for example. The fact that it was believed to have been written by a classical "master of flowering things" and to be much older than it actually was may have contributed to its popularity. It was translated into Middle English around the year 1373.[44] Twenty-seven plants not in the Latin version have been added to the Middle English one.[45] As one would expect, Macer draws heavily on classical sources and makes reference to Pliny, Dioscorides, Appolodorus, and other ancients. It is a fairly practical text, although amulets and other magical elements make their appearance. Perhaps a hint of skepticism is evident, though, in the way magical cures and effects are often prefaced by such possible disclaimers as "men say," "leeches say," or "Pliny says."

Agnus Castus (BACH): This text "came to its present state at the end of the fourteenth century."[46] It is a Middle English translation of a Latin original, which was, however, "probably written in England by an Englishman." Brodin, the editor, doubts that this text was derived directly from De Materia Medica or other ancient sources. He notes that the author includes plants native only to England and that a greater amount of botanical information is given in Agnus Castus that is usual in classical sources. He adds that the English translator inserts English language synonyms into the text, and that several

plants in the Latin version of the text are not in the English.[47] The presence of descriptive botanical information, including color of flowers, the plants' habits, and their habitats, all useful for identifying plants in the wild, is indeed very striking in this text. This information is quite detailed, and in many cases it comprises almost the entire entry for a given plant. Not all plants included are medicinal in nature, and the arrangement is roughly alphabetical by plant name. These traits suggest that Agnus Castus has a greater affinity with the true herbal catalogs and floras which began to be produced in the sixteenth century than with the medical handbooks with which we are primarily concerned. In any case, there is virtually no magic in this text.

"Middle English Rimed Medical Treatise" (GMER): This text was published by Robert Max Garrett in Anglia in 1911. He believes the work to have been written sometime between approximately 1370 and 1480. This poem refers to classical sources, especially Hippocrates, and attributes much magical lore to them.[48] A brief physical description of plants is often given as a guide to identifying them, and variant Middle English names for plants are sometimes included.

Medical Works of the Fourteenth Century (HMWF): This text, compiled by George Henslow and first published in 1899, consists of transcriptions of English language

medical materials from the late fourteenth century. It includes sections of various manuscripts, all believed to have been written in southern England and probably by a Norman who knew both Anglo-French and English.[49] The material dates from approximately 1400 to perhaps as late as 1464.[50] Most of the recipes given are for mundane uses of herbs.

Medieval Woman's Guide to Health (RWGH): This text was written in 1420.[51] It has been edited by Beryl Rowland from "the best version of the twenty or so she had found" in manuscript.[52] This text is an example of the many how-to books that were produced in the late Middle Ages. "Its author was intent on . . . summarizing tried-and-true remedies rather than forwarding contemporary medical speculation; the treatise was to serve as a handbook for mid-wives and perhaps for self-help."[53] In her preface, Rowland says that although one copy of this manuscript is attributed to Trotula, possibly a legendary figure or possibly a Salernitan woman physician, some of its obstetrical material seems to be derived from the work of Soranus of Ephesus, a Roman of Hadrian's and Trajan's time. The manuscript from which Rowland worked seems to have been prepared by a professional scribe.[54] The recipes in this text are very complicated, requiring many ingredients, and this accords with the supposed classical origin of the

material. The actual preparation of the recipes are usually quite simple, however.

Liber de Diversis Medicinis (OLDM): This text is a section of a manuscript which also contains "various romances, sermons, mystical writings, and religioius lyrics." It seems to have been written sometime after 1422 and before 1453. Margaret Ogden edited it, and it was published in 1938. She believes that it probably originated in Yorkshire and says that it seems "like the product of a gentleman amateur" rather than of a cleric. The text is a compendium of remedies, arranged by part of the body from head to foot, and it appears that there was also a section, now lost, that was arranged by herb name. Many classical sources can be traced for the recipes included, according to Ogden, but she thinks the compiler, most probably a man named Robert Thornton, knew of these only indirectly.[55]

A Leechbook or Collection of Medical Recipes of the Fifteenth Century (DLEE): This text was edited by Warren Dawson and published in 1934. Dawson says that it was definitely written during the reign of Henry VI, possibly in 1443 or 1444. He says the text is a compilation of extracts, but probably a copy of an existing collection rather than an original effort. Also, rather than having been derived from Latin originals, this manuscript seems to have been based on sources written in English. Dawson says

that the writer of this text did not know Latin or Greek. He also believes that this manuscript originated in the Midlands or the north of England, though he notes that it has many passages which parallel parts of Henslow's texts from the south. The material in this manuscript is mainly classical in origin, derived from Late Latin translations of Greek works. Dawson says that the seven sources cited in the manuscript itself may not be correct or accurate, and he refers to a number of probable sources for the material.[56] Dawson believes that the manuscript also contains some local material from the English, French, and German folk populations. He observes that "unlike most other manuscripts of its period and class [this text] contains no incantations or charms, and is severely practical in character." He adds that the magical element is not entirely lacking, however.[57] Interestingly, given the practical orientation of this text and its relatively late date, a few traces of magical material can indeed be identified here, as will be evident in later discussion.

Here Men May Se the Vertues Off Herbes (GVER): This text was edited by Pol Grymonprez and published in 1981. He dates the text, which is written in Middle English with some Latin, at about 1450. It is part of a manuscript which also includes a text of Agnus Castus. Although ninety-seven plants are discussed in the entire text, Grymonprez has chosen to include only the first thirty-two.

He says that these form a separate section of the herbal. The sources for this work are classical. Grymonprez identifies the primary ones as Macer Floridus and Circa Instans, written by Matthaeus Platearius at Salerno in the twelfth century.[58] Circa Instans was perhaps the most important and influential medieval herbal, but it is not included in this study because it was not a vernacular text, never having been translated into English.

The Book of Secrets of Albertus Magnus (AMBS): This text, edited by Best and Brightman, is derived from the first English edition of this work, originally published in approximately 1550. The first manuscripts of this work, in Latin, were written soon after Albert's death (ca. 1280). Attribution to him is spurious, but the material may have been written by a follower. This text was intended for literate but unsophisticated people. The editors suggest a comparison with the audience of today's Reader's Digest. It was a popular work in another sense as well: nine editions were produced altogether, the last in 1637. The editors comment that "the magic recipes are greatly simplified, and involve none of the ritualistic complications normally associated with witchcraft `. . . or medicinal magic." They also note that the instructions are much too vague for the magical claims to be put into practice--or to be tested--by the reader, and they conclude that the work was "unlikely to have been taken altogether

seriously when it was written."[59] Even though technically it falls outside the time period of interest, this text was included in the study because it provides a valuable point of comparison with the other texts.

With this background on the sources of medical information and belief in England throughout the medieval period, we will be better equipped to explore the role of magic in popular or folk medicine. Before exploring the evidence in our texts, however, it is necessary to come to some definition of the concept of magic itself. This will be the subject of the next chapter.

NOTES

[1] See relevant sections of the following for fuller discussion of these sources and their interactions: Wilfrid Bonser, The Medical Background of Anglo-Saxon England (London: Wellcome Historical Medical Library, 1963); Charles Singer's introduction to Oswold Cockayne, ed., Leechdoms, Wortcunning and Starcraft of Early England, 3 vols., rev. ed. (London: Holland Press, 1961); John H. G. Grattan and Charles Singer, Anglo-Saxon Magic and Medicine: Illustrated Specially from the Semi-Pagan Test "Lacnunga" (Folcroft, PA: Folcroft Library Editions, 1971); Charles Singer, "A Review of the Medical Literature of the Dark Ages, with a New Text of about 1110," Proceedings of the Royal Society of Medicine, 10(1917) Section of the History of Medicine, 107-160; Introduction to Margaret Sinclair Ogden, ed., The "Liber de Diversis Medicinis," Early English Text Society, O.S. 207 (London: Oxford University Press, 1938).

[2] Singer, "A Review," p. 4.

[3] Grattan and Singer, p. 25.

[4] Ogden, p. xvii.

[5] See GVER p. 103 note; CLEE 1 173/5; CLEE 1 175/5; RWGH p. 144; HMWF 105/21 - 106/2; DLEE 161/485; DLEE 325/1064; HMWF 76/1-3; DLEE 165/496. For the sake of convenience, citations to the medieval texts examined for this study are given throughout according to four-letter reference codes such as those above. See Appendix A for a key to the codes and full bibliographic information for the texts. Citations to material from introductions, glossaries, etc., in the editions used are given in the standard manner.

[6] Charles Singer has explored this creation of parallel texts of herbals in his "The Herbal in Antiquity and Its Transmission to Later Ages," The Journal of Hellenic Studies, 47(1927), 1-52.

[7] See Bonser's discussion, pp. 38-41.

[8] Ogden, p. xix.

[9] Lynn Thorndike, History of Magic and Experimental Science Vol. I (New York: Macmillan, 1923), pp. 566-593.

[10] Grattan and Singer, pp. 30-31.

[11] Singer, "A Review," p. 115.

[12] Gösta Frisk, ed., A Middle English Translation of Macer Floridus de Viribus Herbarum (Millwood, NY: Kraus Reprints, 1973), p. 11.

[13] See Grattan and Singer and Godfrid Storms, Anglo-Saxon magic (The Hague: Nijhoff, 1948), for detailed discussions of the interactions of these elements in the Anglo-Saxon medical literature.

[14] Grattan and Singer, p. 44.

[15] Singer, "A Review," p. 44.

[16] For more information about the overall role of the Church in the development of English medicine in the Middle Ages, see relevant sections of Charles H. Talbot, Medicine in Medieval England (London: Oldbourne, 1967); Stanley Rubin, Medieval English Medicine (London: David and Charles, 1974); Edward J. Kealey, Medieval Medicus: A Social History of Anglo-Norman Medicine (Baltimore: Johns Hopkins University Press, 1981). Kealey has a very extensive and useful bibliography, as well.

[17] Bonser, pp. 164, 171-173.

[18] Grattan and Singer, pp. 6-7.

[19] Bonser, pp. 120, 123.

[20] Kealey, p. 9.

[21] Grattan and Singer, p. 86.

[22] Grattan and Singer, pp. 4-5.

[23] Ogden, p. xx.

[24] GSAS xxxa, for example.

[25] Grattan and Singer, p. 5.

[26] See especially the OLDM text, where these are rather commonly encountered.

[27] See DLEE 319/1049; DLEE 303/989; DLEE 301/987, for example.

[28] For example, RWGH, pp. 84, 104, 120.

[29] Roselle Hope Robbins, "Medical Manuscripts in Middle English", Speculum, 45(1970), 393, speaks of "over three hundred and fifty Middle English medical manuscripts, with few exceptions undiscussed and unpublished."

[30] The studies cited above by Talbot, Rubin, and Kealey concern themselves mainly with this type of practitioner. See also Charles H. Talbot and E. A. Hammond, The Medical Practitioners in Medieval England: A Biographical Register (London: Wellcome Historical Medical Library, 1965).

[31] Ida B. Jones, "Popular Medical Knowledge in 14th Century English Literature," Bulletin of the Institute of the History of Medicine, 5(1937), 421.

[32] Bonser, pp. 41-42.

[33] Gösta Brodin, ed., Agnus Castus: A Middle English Herbal Reconstructed from Various Manuscripts. Essays and studies on English Language and Literature, No. 6 (Uppsala: Lundequist, 1950), pp. 12-13.

[34] Ogden, pp. xxv-xxvi.

[35] BACH and RWGH, for example.

[36] Cockayne, Vol. 2, p. 281.

[37] Frisk, p. 11.

[38] Storms, p. 24.

[39] See CLEE 2 I.XVIII, for instance.

[40] See Grattan and Singer, p. 7 for a discussion of the origins of the Lacnunga material.

[41] GSAS LVXIII, note.

[42] Brodin, pp. 19-20.

[43] Singer, "A Review," p. 109.

[44] Frisk, pp. 13-15.

[45] Frisk, p. 20.

[46] Brodin, p. 15.

[47] Brodin, pp. 24-26.

[48] See, for example, the section beginning with line 524.

[49] George Henslow, Medical Works of the Fourteenth Century. (New York: Burt Franklin, 1972), p. xv.

[50] Henslow, p. x.

[51] Beryl Rowland, Medieval Woman's Guide to Health: The First English Gynecological Handbook (Kent, OH: Kent State University Press, 1981), p. xvi.

[52] Rossell Hope Robbins, in her foreword to Rowland, p. xii.

[53] Rossell Hope Robbins, in her foreword to Rowland, p. xiii.

[54] Rowland, p. xiv.

[55] Ogden, pp. viii-xxii.

[56] The seven cited are Anselm, Galen, Bernard Gordon of Mountpellier, Henry de Mondeville, Hippocrates, "Peter Bonant" [unknown], and Petrus Hispanicus. Dawson's candidates are Pliny, Dioscorides, Cassius Felix, Galen, Oribasius, Alexander Trallianus, Pseudo-Apuleius [Apuleius Barbarus], Sextus Placitus, Paulus Aegineta, and Marcellus Empiricus.

[57] Warren R. Dawson, ed., A Leechbook or Collection of Medical Recipes of the Fifteenth Century (London: Macmillan, 1934), pp. 2-11.

[58] Pol Grymonprez, "Here Men May Se the Vertues off Herbes": A Middle English Herbal. Scripta 3: Medieval and Rennaissance Texts and Studies (Brussels: Omirel, 1981), pp. 15-19.

[59] Michael R. Best and Frank H. Brightman, The Book of Secrets of Albertus Magnus (Oxford: Clarendon Press, 1973), pp. xii-xviii.

CHAPTER 3

Magic and the General Characteristics of Magiferous Plants

Though most people have an intuitive notion of what is meant by the term "magic," finding evidence of magical practice is not always a straightforward process. In order to recognize magical instructions, activities, or other elements, it is necessary to have a well-defined idea of what magic is, for what purposes it is used, and how it "works." An awareness of some common components of magical procedures will also be useful. Once these have been established, it will be possible to move on to a discussion of the magiferous plants themselves.

In essence, magic is a practical art or craft, a means of influencing events in the natural world for a specific purpose by the use of impersonal, supernatural power. Typically in the magical rite, this power is transferred by the magician to some physical object.[1] In many ways, magic resembles other, mundane arts, but it differs from them in important respects, also. Although both magic and mundane arts are means by which man seeks to exert control over the natural world, only magic operates in

the domain of supernatural powers. The magician differs from the priest, who also deals with the supernatural realm, most significantly in that while the priest assumes a supplicating posture of prayer, in which a favor or an act of grace is requested of a superior being, the magician commands an impersonal force to accomplish the effect that he wishes to achieve. He may act as a channel for supernatural power greater than his own, but it is by the force of his will alone that the power is activated and directed.[2]

Magic and the mundane arts are most alike in that both are practiced for some specific purpose and that both follow specific rules and procedures to attain their ends. However, Malinowski addresses a major difference in the nature of these rules when he says "Science is guided by reason and corrected by observation, magic, impervious to both, lives in an atmosphere of mysticism."[3] Mundane arts, technology, and science are all based on "the careful observation of natural process and a firm belief in its regularity, . . . the power of reasoning, . . . confidence in the power of reason."[4] The laws of magic, on the other hand, are not derived from objective and dispassionate observation of the natural world, since they presuppose supernatural forces which

can override observed cause and effect. Neither are magical practices based on faith in reason, for they are used to cope with "the unaccountable and adverse influences, as well as the great unearned increment of fortunate coincidence"[5] that reasoning cannot account for, predict, or control. Malinowski notes that in general, the use of magic is more prevalent where "danger and uncertainty" are greater and less so in circumstances where man can "rely completely upon his knowledge and skill."[6] Thus, there are few magical rituals for baking bread, but many for insuring a good harvest.

Magical traditions have arisen in remarkably similar forms the world over, and it seems that magic generally derives its rules and procedures from analogical reasoning and symbolic associations that have strong emotional resonance. Although magic is not without rational elements, these seem to function primarily to reinforce its emotional appeal. Sir James Frazer is the great authority on magical matters, and in The Golden Bough, he has described two modes of magical operation which have become widely familiar and which still serve as the basis for discussions of the subject. These are sympathetic magic and homeopathic magic. Sympathetic magic acts through physical association of the magical object and

the thing on which it is to act. It is based on the belief that once a magical object has been in physical contact with something else, the two will continue to be in some way connected.[7] According to the principle of sympathy, a magical object--an amulet, for example--may give off power indiscriminately into the immediately surrounding area, the way a hot stone radiates heat. Or, its power may be more specifically connected to a particular object, as that of a voodoo doll when the image is made with the actual hair, skin, fingernail, or other part of its intended victim. Saints' relics are another example of the principle of sympathy, since they derive their power from having been in proximity at one time to a source of sacred power. This mode of magical operation is also called contiguous or contagious magic.

In homeopathic magic, the effective connection is based on perceived similarity or antipathy rather than on physical contiguity between the magical action or material employed and the condition desired to be created or changed. The homeopathic principle is also the basis for magical action caused by the ritual imitation of the desired condition or change. This is easiest to illustrate with an example, and here is one from DLEE 321/1054, in which the daily reduction of

the number of leaves used in treatment mimics the desired change of a gradual reduction in the swelling.

> To drive out a botch [swelling, boil] or a sore of a man or a woman's body. Take five leaves of an herb called milfoil [Achillea millifolium L.], and stamp them small with stale ale or with white wine. And put thereto a quantity of treacle and give the sick to drink, and let him use it thus three days: the first day five leaves, the second day four leaves, the third day three leaves, stamped and strained with treacle aforesaid . . .

Ritual is all-important in the practice of magic. Magical rites need not be complicated, but they must be performed with immaculate precision. The state of mind of both the magician and any other participants is crucial for the success of the rite. An emotional atmosphere of mystery, awe, and reverence must be created, and it is essential that the prescribed procedures be followed exactly. Even the slightest deviation from correct practice may invalidate the entire activity.[8] This is because magic depends for its effectiveness on emotional factors of belief and acceptance and on psychological suggestion. Magic operates in a realm where believing makes it so. This characteristic of magic helps to explain its age-old association with medicine. Although the mechanisms are not well-understood even today, it is well known that the psychological state and expectations of the patient can have a dramatic effect on the success of medical therapy.[9] Since nowhere in human experience more

than in medicine is "danger and uncertainty" more absolute and reliance on knowledge and skill ultimately more futile, the universal association of magic and healing can scarcely be surprising. And given our lack of understanding of healing phenomena, it would perhaps be rash to underestimate the power of belief and say categorically that healing magic does not "work."

In sum, then, for the purposes of this discussion, magic can be understood to be a method of compelling impersonal, supernatural power or forces by the use of emotionally significant ritual elements, invested with intuitively determined symbolic associations, to affect changes in the natural world. The changes sought by means of magic are sometimes contrary to what would be expected in the natural course of events, but sometimes magic is used only to insure that a specific natural outcome occurs. It is especially prevalent in dealing with events over which rational means or mundane skills have little certainty of success.

This general understanding of magic and its procedures is not sufficient to identify magical practices with complete confidence in the materials in the texts studied, however. For one thing, "the emotional setting, the gestures and expressions of the sorcerer during the performance . . . [which] are of the greatest importance,"[10] have for the most part not come down to us.

Had these been recorded, they would provide valuable clues to the potentially magical significance of other elements. Also, few recipes, aside from some of the Anglo-Saxon charms, are identified as magical, and there are several points of ambiguity in interpreting typically magical elements when they are encountered. For illustration, below are three such elements often found in healing recipes along with explanations of the kinds of ambiguities which arise in trying to establish them as indicators of magical intent.

The first element to be discussed is the significance of number. Number is a fundamentally important element in magical rites, but it also has practical importance in medicine as a means simply of controlling the timing and amount of dosage. This causes many ambiguities in the interpretation of medical recipes. Following are two examples illustrative of some of the difficulties which can arise.

In the Western tradition, going back at least to Virgil, odd numbers are considered to be more magically powerful or effective than even.[11] Knowing this might influence one's interpretation of the following remedy for a "loinsick man" from CLEE 2 II.39:

> Again, of the black ivy, first three berry bunches, next five, then seven, then nine, then eleven, then fifteen, then seventeen, then nineteen, then twenty-one, give them so, according to the days, to be drunk in wine.

The gradual increase in the number of berry bunches to be taken each day--assuming that is what "according to the days" means--may be merely a practical way of increasing dosage slowly, but there are several reasons to suspect a magical dimension in this remedy. First, the increment by odd numbers and the fact that it begins with three bunches rather than one are suggestive because of the fact that odd numbers are likely to be magical and because three is such a widely recognized magic number. The use of ivy is another hint, since this plant is magically associated with both sexual license and immortality through rebirth.[12] This is especially significant since the remedy is for some sickness of the loins. The procedure of increasing the dosage of berries may be yet another indication of a magical dimension in this remedy. Although the exact nature of the "loinsickness" is unspecified, the increase in dosage could be a homeopathic means of increasing sexual potency or libido. Thus, this superficially straightforward-seeming remedy reveals on closer examination several elements suggestive of magical activity.

For contrast, here is another remedy, from CLEE 2 II.65.3, for "the yellow disease," or jaundice:

> take the netherward part of helenium, contrive that thou mayest have it on the previous day; when first thou useth it, take three pieces in the morning and three at night, and they shall be bits of it sliced into honey; and the

> second morning four pieces and four at night; and the third morning five pieces and five at night; and the fourth morning six, and six at night.

This sounds very like dosage instructions from a modern doctor's prescription. The medication is to be take twice a day, the dosage gradually increased. While it is true that morning and evening sometimes have magical importance in the performance of rites,[13] they are also reasonable times to administer medication that is to be given twice each day. The increase is by straightforward ordinal amounts, with no special emphasis on odd numbers other than beginning with three pieces of root. Since there is no other obviously magical material to support it in this remedy, it is difficult to assign magical significance to this occurrence of three. In sum, the one or two possibly magical elements in this remedy are easily explained by purely practical considerations, and there is no persuasive reason to assume that it has a magical dimension. Although there is no actual proof of magical content in the first example, the possibility is not so easy to dismiss there.

The presence of individual numbers may have magical significance in medical recipes. Magical uses of the numbers one and two have not been encountered in these texts, but three is another matter. Bonser notes that three occurs in nearly every Anglo-Saxon charm, and this is not surprising since it is the magic number par excellence, recognized by both pagans and Christians to have

supernatural significance. Nine is also a very potent magic number, since as three multiplied three times, it is essentially a special, intensified case of the lesser number. Three and nine are by far the most common magic numbers in the Anglo-Saxon tradition.[14] So powerful is the magical association of three that Storms finds magic in recipes notable in no other way than that they contain three ingredients.[15]

The very ubiquity of three as a magic number can cause confusion in interpreting recipes, as the previous examples have shown. Very frequently, dosage instructions involve threes; for example, OLDM 14/30-31 says "eat it and do so three days and it shall help thee;" GSAS LXXVa has "Give to drink, three draughts in a day;" DLEE 95/251 advises "use this medicine fasting each day a spoonful [for] three days." These and numerous other such recommendations seem certainly to be mundane uses of three. One becomes more convinced of magical import when threes, nines, or other magical elements accumulate in a single recipe. An example of a recipe with many threes occurs in OLDM 34/19-25. Also note that the amounts of wine and holy water add up to nine parts liquid altogether. This is a treatment for dropsy:

> Take three sage leaves, three betony leaves, three woodbynd [honeysuckle] leaves, three ground ivy leaves, three graynes of juniper, three corns of peppear [pepper], & a handfull of mousear & a handfull of leek roots, fel

> gerie de quercu [something to do with oak?] radishes three. Pound all these together well & mix with five sops of wine & four sops of holy water & drink it often.

Two examples of multiple threes in recipes from DLEE are especially interesting, since this text has relatively little magical material. In the first, DLEE 237/755, the use of three parts each of three herbs is quite suggestive of magic:

> Quartan fever. Take three leaves of sage, and three leaves of mint, and three corns of pepper. Drunken in ale it doth away the quartan fever.

In the second, DLEE 153/459, there are three ingredients, and the dosage instructions use threes in two ways. This is a remedy for jaundice:

> Take purified honey, plantain, powder of tried ginger ["tested, of good quality"], these three boiled together, and use this medicine three mornings and three evenings, each time three spoonfuls, during three days.

Here is an example of threes mixed with other magical elements from OLDM 60/1-8, a remedy for tertian fever:

> Take three leaves of waybread as whole as possible with no blemish on leaves or roots. Wash them well & shake the water off & pound them well & mix them with three spoonfuls of wine and three spoonfuls of water & cleanse it through a cloth & give to drink before the evil takes him.

In addition to the three occurrences of three in this recipe, the emphasis on a plant free of blemish is a

typically magical requirement. Interestingly, this recipe may also include a bit of humoral medicine along with the magic since waybread [Plantago major L.] is a "cool" plant being used to treat fever, a "hot" condition.

The recipes above exhibit clearly magical uses of three. There are a great many, however, in which the role of three is not definitely either mundane or magical. Here is one such, OLDM 15/6-7, for vomiting:

> Take at the morn & eat three leaves of rue fasting & three leaves of sage at the evening.

Specifying three leaves of each herb may have magical significance, or it may be only a dosage instruction. Fasting is sometimes an indication of magical activity, but in the case of a treatment for vomiting, it may be a practical necessity. And, as in the earlier example, the importance of morning and evening may be only for timing the medication. It happens that rue and sage are often used in magical medical preparations, but since one of the characteristics of magiferous plants is that they are used in mundane as well as magical contexts, their presence in this recipe is no more a guarantee of magical intent than is that of any of the other elements.

Other numbers with potential magical significance are four, five, seven, twelve, and occasionally, forty. Four was an exception to the fact that even numbers were generally not considered magical. It was associated with

the four cardinal compass points and the four Evangelists[16] and was also important as the structural basis of the microcosm/macrocosm correspondence which was fundamental to medieval natural philosophy. According to this idea, the four ages of man were analogous to the four seasons of the year--childhood to spring, youth to summer, manhood to autumn, and old age to winter--and there were innumerable other such associations.[17] Indeed, as Singer has noted, the "lore of fours" relied on analogical reasoning to prove the conclusions of medieval natural philosophy,[18] and this type of reasoning is equally characteristic of magical thinking. For examples of possibly magical fours in the texts examined in this study, see FMAC 34b 23-28; OLDM 60/25-30; DLEE 237/756.

Five is the most important magic number in Chinese medicine, but Bonser notes that it and seven, a number of great magical import to the Greeks,[19] were used less frequently in Anglo-Saxon magic than three and nine. Five and its multiples are often associated with blood-letting in Anglo-Saxon medicine,[20] but they are not prevalent in herbalism. Examples of fives with possibly magical significance can be found in DLEE 169/516 and CLEE 1 99.2. Seven, like three, is a number with widely known magical associations. Bonser speculates that it may derive some of its power from an association with the phases of the

moon.[21] Magical sevens are rare in the study texts, but one non-medical example can be found in CLEE 2 III.53.

The significance of nine as a multiple of three has been discussed. There are many instances of possibly magical nines in the texts. Here are some examples: CLEE 1 117.5; GSAS XIXa, XXVIc, XXXVIIa; GMER 280-286; OLDM 15/33-34, 20/28-29, 41/38-42/5, 42/28-33, 45/9-12, 56/1-2; DLEE 93/245, 149/447, 209/660, 329/1071.

Twelve is associated with both the twelve signs of the zodiac and the twelve apostles.[22] It is also a multiple of three, but it seems not to have developed a reputation for magical power on that basis. It seems to derive most of its importance from its Christian associations. This is also true of the few occurrences of forty as a quantity of magical significance. It may derive its magical associations from the frequent Biblical references to forty days as the duration of some phenomenon. Examples of possibly magical twelves can be found in HMWF 12/6-8; OLDM 18/31-34; DLEE 169/515. (This remedy is nearly identical with DLEE 169/516, cited under fives). Uses of forty with possibly magical import are found in GSAS XXa, XLIVa, XLVIIa. GSAS XLVIa uses eighty, possibly significant as a doubling of forty. DLEE 215/678 has a recipe very similar to GSAS XXa, but it is modified to lessen the magical impact of the forty days' steeping time recommended for the rose oil in each.

Magic numbers can be found in all three of the traditions exerting major influences on medicine in medieval England, and as the lists of examples demonstrate, they occur in texts written throughout the time period of this study. Magic numbers were preserved by the Christianizing influence of the Church, since often they had a religious significance in this newer context as well as their original pagan meanings. A good example of this preservation can be found in CLEE 2 I.63, where several remedies are given for a "fiend sick man," one who is "controlled from within with disease" caused by a devil. The remedies include plants over which seven masses have been said, a drink to be drunk for nine mornings, and a complex ritual for gathering herbs involving threes and twelves. Perhaps this action by the Church is a reason why magic numbers persist in recipes throughout the time span of this study and often provide hints of magical remnants in the later texts. Number appears to be the most consistent and reliable indicator of magic in the texts, and sometimes number alone is an indication of magical dimension. Usually, however, confidence is greater if other magical elements can be identified, since even the presence of several potentially magical elements in a recipe does not guarantee that the recipe itself is a magical one.

The second example of ambiguities encountered in attempting to establish elements of magic in the texts examined is the significance of time in the recipes. Indications of the time at which an action is to be performed can be a suggestion of magic in a recipe. Times of pagan feasts or corresponding Christian ones is one example of this, as has been noted. Also, the so-called "critical days" or "Dies Egyptica," which have their origin in ancient Egypt,[23] may have some importance here. However, they are used mainly to time therapeutic blood-letting and have little direct association with herbalism. Times of day, particularly sunrise, sunset, and midnight, also have magical associations, as do phases of the moon. Astrological references are occasionally encountered, particularly in instructions for gathering herbs, but these appear to be mainly of a calendaric nature. It may be that the herb is most potent at a particular time, owing to its growth cycle. This fact may, of course, be taken by associative reasoning as an indication of magical virtue if the time of greatest potency coincides with some notable solar or lunar event. Nevertheless, without other indications of magical preparation, the time element alone is not sufficient evidence of magical import in a recipe.

The final example of ambiguities in interpreting magical elements in these texts is the significance of

certain words. Names of sacred beings (nomina sacra), the words of psalms, or prayers often form part of the magical ritual preparation of medicinal herbs. Because of the efforts of the Church to eradicate pagan worship, the magic words that occur in recorded charms are nearly always from the Christian tradition, though they may be substitutions for the names of pagan deities used originally. Ambiguity arises because, with other clues to potentially magical activity in the recipes, "magic" words are sometimes used for mundane, practical purposes. The words may be used simply as a timing device, to avoid over- or undercooking a mixture, for example. Another form of clearly mundane timing can be found in DLEE 193/607, a remedy for "migraine in the head, and for impostumes [swellings], and for dropsy in the head." The treatment is to hold a small amount of the prepared mixture in the mouth "as long as thou mayest say two Agnus Dei."[24] The procedure is to be repeated ten to twelve times in the afternoon and evening for four days. None of these therapeutic elements appears to have magical significance. Before the days of wall calendars, digital wrist watches, and oven timers, feast-times and saints' days were carefully calculated, and prayers and psalms were no doubt committed to memory by many in the largely illiterate population. Thus, the presence of such sacred elements in a recipe is not necessarily sufficient reason to classify it as a magical ritual.

There are several other elements which may indicate magical activity in medicinal recipes.[25] In general, as Bonser notes, "unusual" things are magical. Thus, for example, the unusual shape of the mandrake root may have suggested its magical powers, and the use of the left hand rather than the more usually dominant right, or of the ring finger, weakest of the five, may be ways to impart magical power to the act of grasping or gathering an herb.[26] "Unusual" behavior, such as fasting, keeping silence during a rite, or walking in a particular manner, can also be a clue to magical import. The specialized rhetoric of charms and spells is another obvious example of the use of unusual behavior for magical purposes. The use of unfamiliar words, often foreign and perhaps garbled, is a related phenomenon.[27] Here is an interesting example from OLDM 20/12, to cure hiccups:

> Say kyriel, kyriel, kyriel and hold
> your head upward.

The nonsense word "kyriel" sounds like a corruption of the "Kyrie eleison" of the mass, which it may well be. Foreign words have built-in mystery, which makes them especially useful for magical purposes.[28]

Color frequently has magical significance in medicinal recipes. It may be an instance of the unusual, as in the requirement in GSAS LXIIc that butter from a cow of all one color be used in the preparation of a particular salve. More often, color seems to have some homeopathic

significance. For example, red-colored things were often associated with blood, or fevers, with the expulsion of demons, or with the male principle. One example of this is from RWGH, p. 66, where there is a recipe to encourage the menses which includes mixing the herbal brew with "water that radices [radishes] and madir [madder, a red dye] ben sothen yn [seethed or boiled in]." Also, DLEE 291/946 says:

> Another to heal wounds full of blood. Stamp red nettle in a mortar with red vinegar, and lay on the wound; and it shall do away the blood and cleanse the wound.

GMER 734-739 advises that fumitory [Fumaria officinalis L.] can be used against quotidian, tertian, and quartan fevers because its flower is red. In CLEE 1 101/2, there is this remedy for demonical affliction:

> For a lunatic, take this wort [Clovewort, Ranunculus acris L.], and wreathe it with a red thread about the mans swere [neck] when the moon is on the wane, in the month which is called April, in the early part of October, soon he will be healed.

A similar treatment for headache in CLEE 2 III.1, suggests a connection between that ailment and a demonic agent:[29]

> delve up waybroad [Plantago major L.] without iron, ere the rising of the sun, bind the roots about the head, with crosswort [?], by a red fillet, soon he will be well.

Yellow was associated with jaundice and the liver, and GMER 191-192 recommends celandine [Chelidonium majus

L.] as good to drink for jaundice, since it has a yellow flower and a brilliant orange-yellow latex. Blue and green were associated, according to Bonser,[30] with the female principle, blue with the human or earthly manifestation and green with the spiritual. A "blew cloute" [blue cloth] is specified in several recipes for straining an herbal mixture or to make a poultice,[31] but there are not many references to either blue or green items in the study texts. One notable recipe contains a possible interaction of male and female principles based on color. It occurs in DLEE 175/542:

> kynd [venery, lechery] of man, to stop it. Take heavy blue cloth and burn it in a red pot or upon a red tile-stone; and make powder thereof, and take good ale; and beat it in the pot, and cast therein the powder and give him to drink three days; and that is medicinable [curable].

In general, it seems that when the writer has taken the trouble to specify a particular color, the color has symbolic and clearly magical significance. Thus, the requirement that a particular color of the item be used in a recipe does seem to be a reliable indication of magical activity. As the preceeding examples demonstrate, references to color usually occur along with other magical elements, such as numbers, times, or special actions, but even alone, color is strong evidence that a magical dimension exists in a recipe.

The examples above of color as a clue to the medicinal use of a plant are instances of a special case of homeopathic magic which became elaborated in the Renaissance into the Doctrine of Signatures. This doctrine derived from the idea that God had deliberately created physical resemblances between disease conditions, or bodily organs, or parts of the body, and those natural substances --mostly plants--which would cure or otherwise benefit them. The resemblances, or "signatures," were believed to be direct messages from God guiding the healer to the correct source of relief. Although the Doctrine of Signatures did not become fully developed until the Renaissance, it was based on ideas which can be traced to Pliny, for example, that the world is filled with "plants created for the needs or pleasures of mankind" and that "nothing is created by Nature without some . . . hidden reason."[32] The Anglo-Saxons had a similar idea, quoted by Bonser,[33] that "there is no herb which grows in the woods or the fields which does not promote life." Since this view of creation or nature was common to all three of the traditions exerting major influence on the medicine of medieval England, examples of "signatures" are likely to be found in association with magiferous plants in the texts examined for this study.

Besides the ambiguities in interpreting magical elements in recipes, there are also problems with

identifying the plants themselves. A universal standard of botanical nomenclature and taxonomy did not come into existence until the eithteenth century, with Linneaus, and there is much confusion when modern scholars try to identify plants referred to in medieval texts.

Most of this confusion has been inherited from the Middle Ages themselves. Many classical recipes were copied out by scribes perhaps only barely literate in the original language and thus prone to errors of transciption. Even highly literate scribes would make such errors occasionally. There was also the problem, mentioned earlier, that some plants native to the Mediterranean region would be unknown in Britain and might be confused with local herbs. At times, the description of a plant does not match the name given to it in the text, indicating that the copyist was unfamiliar with it. With no standard nomenclature, considerable confusion could arise from the fact that the same plant might be known by different local names in different places. This was a problem for the ancients, too, as we know from Pliny, who comments, NH.XXV.X.29, that "an added difficulty in botany is the variety of names given to the same plant in different districts." And, of course, different plants might be known by the same name in different localities. These problems would become even more acute as vernacular texts became more prevalent and more local names made their way

into the herbal literature. Matters of taxonomy are equally bewildering. Similar-appearing plants could easily be mistaken for one another, as often happened with dill and anise, for example, two members of the modern family Umbelliferae. The many mints are also difficult to distinguish from one another, as are the various thymes, which are readily confused with basil and pennyroyal in our texts. Our modern concept of species may have been foreshadowed in the ancient and medieval idea that some plants have both a "male" and a "female" variety. This distinction seems to have been based on such traits as relative size of plants, not on their roles in plant reproduction.[34] In the study texts, this distinction sometimes occurs in a homeopathic context, with the "male" variety of the plant to be used for a male patient or complaint and the "female" for a female.

For these reasons, plants in this study have been identified only to the level of genus in some cases, where more exact identification is not possible or where several species may be equally indicated. Identification to the genus level can be made with relatively great confidence since the texts used in this study have been edited by experts thoroughly familiar with nomenclature and taxonomy problems and able to make reliable interpretations of the textual data.

These problems with recognizing both magical ritual elements and named plants make it difficult to identify magiferous plants with certainty. Magical activity is more likely to be involved in recipes which contain several of the magical elements discussed above, but it becomes more difficult to demonstrate when fewer such elements are present. Also, the textual record may be incomplete. Underlying assumptions about the significance of particular elements may have been clear to contemporary practitioners while they are obscure to modern readers. Although the same recipes reappear in texts produced at different times, this same loss of awareness of magical significance may also have affected medieval practitioners from different centuries. A few more clues can be gleaned, however, to help in uncovering magical activity by examining the kinds of complaints that are treated by the more obviously magical recipes. These clues are by no means definitive, but they suggest trends that can sometimes be of use in tipping the balance one way or the other when considering a recipe of ambiguously magical content.

Malinowski, in his discussion of magic in general, asserts that a very clear distinction is made between mundane and magical activities in societies where both are used.[35] If such a distinction existed in primitive medicine, one would expect that certain complaints would be recognized as coming from supernatural sources and would be

treated by magical means exclusively, while others, of mundane origin, would be treated without recourse to magic. Or, if all ailments were believed to be caused by supernatural forces, all medical treatment would involve magic. Unfortunately, neither of these situations appears to be the case, even in the early medical texts examined for this study where the magical elements are strongest. There is simply no clearcut, general separation between conditions requiring magical treatment and those for which mundane medicine will suffice. Storms is closer than Malinowski to the realities of healing magic when he observes that "there is no break, no dividing line between the natural and the preternatural elements . . . they mutually assist and support each other to achieve the desired end, which is the recovery of the patient."[36] Thus, it is difficult to assign primacy to magical or mundane means when both are evident in a recipe. Even when using magic, the healer does not neglect to perform mundane palliative actions that will ease suffering and promote healing. Much magical medicine may be used to speed or otherwise aid the natural healing process, as a kind of insurance that natural processes will be able to proceed without interference. Nevertheless, there do seem to be some complaints, diseases, or conditions for which magical remedies are common, and when one of these is the object of cure, one is alerted to look for magical means at work.

In the Middle Ages, although there was also a belief in humoral etiology, many diseases were believed to be caused by supernatural agents. The Church taught that disease might be a punishment for sin, inflicted by God, or that it might be a form of persecution caused by a demon. This latter belief was closely allied to the Anglo-Saxon belief in evil spirits, "elves," as the cause of disease, and in many recipes it occurs as a Christianized form of this native idea. Thus, much magical medicine is aimed at driving away the evil, supernatural source of disease. This may take the form of blanket protection against evil forces, or it may be directed against specific ailments. Diseases where this action in therapy is especailly evident in our texts are fevers, madness or lunacy, and epilepsy.

Fevers often mentioned are the quotidian, the tertian, and the quartan. These appear to be malarial ailments with regular paroxysms of chill, fever, and sweating alternating with periods of relative comfort and well-being. The quotidian fever caused paroxysms every day, the tertian every other day, and the quartan every third day.[37] The regular reappearance of the fever symptoms may have contributed to the idea of the need for treatment of this kind of fever by magical means.

Madness described a very wide range of ailments in the Middle Ages, such as mental retardation, irritability, and shortness of temper, and it is rarely possible to

identify which modern disease is being referred to by this term in the texts. While it is generally true that all forms of madness were attributed to some sort of demonic possession,[38] the relatively late DLEE text has this explanation of the causes of madness, interesting because it shows an attempt at physiological explanation of the condition. This is DLEE 129/341-342:

> Many are the sicknesses of the middle part of a man's head; that is to say madness or frenzy cometh sometimes of choler, sometimes of blood, sometimes of melancholy. If it come of choler, it maketh a man quarrelsome and harmful; if it come of blood, it maketh a man playful and merry, and doing no harm. If it come of melancholy, it maketh a man most timid and afraid of everything. Frenzy is an aposteme [swelling] in the further part of the head, and it cometh only of choler, that is to say, of heat, and dreams; nevertheless sometimes it cometh unprofitably; at other times of heat and moistness.

This explanation is exceptional, included to demonstrate the futility of making absolute categories for the causes and treatments of disease across the entire time span covered by this study. Madness was, in general, a condition for which magical remedies abounded. Epilepsy was, apparently, also believed to be caused by demonic possession, but it was distinguished from other kinds of madness. It was known as "the falling evil" and had its own means of magical therapy.

Storms, in speaking of the Anglo-Saxons, points out that "poisoning was regarded as having some sort of magical connotation and could be opposed most effectually by magical means."[39] Classical authors seem to have shared this idea of the occult nature of poisons. They knew, for example, that the bite of a mad dog was more dangerous than that of an ordinary one; they had special treatments for mad-dog bites. They also had treatments for the bites of poisonous snakes. The idea of "flying venoms," or poisons at large in the air, was central to Anglo-Saxon medical belief.[40] This idea of poisons was probably more inclusive than our own and may have been used to explain the cause of diseases which we now know to be the result of air-borne microbes. A similar idea is evident in the name we have given to one such type of microbe; in Latin, "virus" means "poison." The "Lay of the Nine Magic Herbs," included in the Lacnunga text, GSAS LXXIXb and LXXXb, names some herbs believed to be especially potent against "the venoms." The text of this ancient poem is very corrupt and confusing. There are two lists of herbs which do not entirely agree; ten herbs, not nine, are mentioned; some of the herbs cannot be identified, and the last two, chervil and fennel, are of Mediterranean origin, not native to England.[41] Much scholarly ingenuity has gone into attempts to interpret this text, both philologically and in terms of its medical content, and despite its limitations, the text is valuable

in identifying several herbs of definite magical significance. One of these, mugwort [Artemisia vulgaris L.], will be discussed in detail in the next chapter.

Magical means are also used in the texts examined to interfere with the natural order of events not directly concerned with disease conditions. This is done either by causing unnatural consequences or by preventing natural consequences. Examples of the former are: preventing mundane harms such as bites of dogs or snakes, wounds, or conflict with other people; altering dreams or behavior; prophesy. Examples of the latter are the prevention of thirst, fatigue, or drunkenness. Specific examples of these magical activities will be provided in the next chapter.

The final common use of magical medical means is in the area of fertility and sexual activity. Magical means are used to facilitate conception, to insure the sex of the child to be conceived, and to ease labor and childbirth. They are also used to regulate the menses and to cause abortion, often specifically of a fetus which has died in the womb. And, of course, there are "love potions" to regulate chastity and sexual desire, both in its objects and its intensity.

Because of all of the uncertainties inherent in the subject of magical activity in medieval medical therapy, it is necessary to be cautious and conservative in making

claims about the existence and characteristics of magiferous plants in the texts studied. Number, especially three and nine, and color are the most reliable indicators of magical ritual in the recipes, but many other elements may have magical significance. The context of each recipe must be analyzed to determine magical content, and the only rule of thumb is that, in general, the more potentially magical elements which can be identified, the more confidence is possible in asserting that the recipe itself is a magical one. Nevertheless, much evidence has been found to support Stannard's concept of magiferous plants. The next chapter will provide detailed discussion and analysis of some representative examples of magiferous plants identified in this study.

NOTES

[1] For a detailed discussion of the nature of magic and its relation to practical arts, science, and religion, see Bronislaw Malinowski, "Magic, Science, and Religion" in his Magic, Science, and Religion: And Other Essays (Boston: Beacon Press, 1948), pp. 1-71. The third chapter of Godfrid Storms' Anglo-Saxon Magic contains valuable information on magic in the abstract and a good summary of Anglo-Saxon magical practices. These two sources are the basis for the following discussion.

[2] Storms, p. 178.

[3] Malinowski, p. 3.

[4] Malinowski, p. 1.

[5] Malinowski, p. 12.

[6] Malinowski p. 14.

[7] Storms, p. 31.

[8] Malinowski, p. 65.

[9] Felix Grendon made this observation early in our century in his "Anglo-Saxon Charms," Journal of American Folk-Lore, 22(1909), 113. An excellent summary of current scientific understanding of the operation of placebos is Arthur K. Shapiro and Louis A. Morris, "The Placebo Effect in Medical and Psychological Therapies" in Sol. L. Garfield and Allen E. Bergin, eds., Handbook of Psychotherapy and Behavior Change: An Empirical Analysis, 2nd ed. (New York: Wiley, 1978), pp. 369-410.

[10] Malinowski, p. 52.

[11] Bonser, p. 213.

[12] See, for example, Robert Graves' discussion of "vine" in The White Goddess: A Historical Grammar of Poetic Myth. 2nd ed. (New York: Vintage, 1958).

[13] Storms, pp. 88-90.

[14] Bonser, pp. 213-216.

[15] Storms, pp. 96-98.

[16] Bonser, p. 216.

[17] See Bonser, pp. 35-36 for one list of these.

[18] Grattan and Singer, pp. 17-18.

[19] Storms, p. 100.

[20] Bonser, p. 214.

[21] Bonser, p. 215.

[22] Bonser, p. 216.

[23] For a thorough discussion of this subject, see Robert Steele, "Dies Aegyptiaci," Proceedings of the Royal Society of Medicine, History of Medicine Section, 12(1918-1919), 108-121.

[24] Dawson notes that the text is corrupt at this point, and the first words of a psalm, rather than the Agnus Dei, may be intended, but the point is the same in either case.

[25] See Storms' fourth chapter for a thorough analysis of magical ritual elements and their significance.

[26] Bonser, pp. 222-223.

[27] Storms, p. 5.

[28] See Grattan and Singer, pp. 9-11, for a discussion of this point. Grendon, pp. 112-113, has a discussion of the magic of names and the corruption of phrases.

[29] Bonser, p. 219, also suggests such a connection.

[30] Bonser, p. 220.

[31] See, for example, GMER 966-969; GSAS VIIa; GSAS XIIa.

[32] Pliny, Natural History, H. R. Rackham, et al., eds., Loeb Classical Library, 10 vols (London: Heinemann, 1938-1962), p. XXII.I. All citations to the Natural History are to this edition and are given in the text.

[33] Bonser, p. 306.

[34] Bonser, pp. 326-327.

[35] Malinowski, pp. 11-12.

[36] Storms, p. 167.

[37] Ogden, glossary.

[38] Bonser, p. 257.

[39] Storms, p. 193.

[40] Grattan and Singer, p. 52.

[41] Bonser, pp. 334-335.

CHAPTER 4

Some Magiferous Plants

Using as guidelines the characteristics and tendencies described in the previous chapter, it has been possible to identify with more or less confidence a considerable number of plants in the study texts which can be called magiferous according to Stannard's criteria. Once again, these criteria are: that the plant be a genuine, natural one that can be found growing in the world, as opposed to a fabulous or imaginary variety; that it have magical healing properties; that it also be used in non-magical medical therapy. A complete list of magiferous plants identified in this study is given in Appendix B. It is not practical to attempt to discuss all of these plants here, but several have been chosen for detailed analysis in the belief that they will provide a representative sample of the whole. Since they occur frequently as simples, their role in magical or mundane recipes is clearly distinguishable. These plants have been chosen also because they help to answer the questions posed in the introductory section about magiferous plants. These questions will be

taken up again in the concluding chapter. The plants are arranged in alphabetical order by scientific name. For each one, both magiferous and mundane uses are given, and some attempt is made to trace the sources of magical beliefs about the plant. The persistence of magical beliefs about the plant through the time-span of the study is discussed, also, where this is possible to determine.

Artemisia vulgaris L. [mugwort, motherwort]

This herb has been used in magical ceremonies the world over since before recorded history.[1] It appears in virtually every text in the study; only SDAT and AMBS neglect to include it. Storms says that mugwort was "one of the most popular herbs in Anglo-Saxon medicine and magic,"[2] and it was important in the classical tradition, as well. In both of these traditions, the virtues of mugwort are reported to have been discovered and told to mankind by the gods. In "The Lay of the Nine Herbs", GSAS LXXIXb, from the Anglo-Saxon tradition, Wotan is the god responsible, although he has acquired some Christ-like characteristics in the surviving form of the story. In sources derived from the classical tradition, such as FMAC 1a 406 and CLEE 1 107/4, this herb is associated with Diana, or Artemis, as she is known to

the Greeks; and these texts explain that the name of Artemisia comes from this. Pliny, however, says that the herb is named for a mortal woman, "Artemisia, the wife of Mausolus," NH XXV.XXXVI.73.

The magical uses of mugwort fall into the categories of fertility, protection against "the fiend," prophesy, and preventing the natural consequence of weariness on a journey. Most of these uses are given in Dioscorides'[3] discussion of the plant, III.127, although without any magical feeling or atmosphere. In the study texts, some of the uses for mugwort are clearly magical, others are definitely mundane, and still others are of an ambiguous nature.

Mugwort is known today as an emmenagogue and abortifacient; modern herbals caution against its use by pregnant women.[4] It is widely recommended in the study texts for these purposes, though almost never do such recipes involve obviouosly magical means. Traces of magical activity may be evident when the herb is to be used externally for these purposes; modern herbals establish that it must be taken internally to be effective. Thus, in FMAC 1a 11-14, contagious magic may be involved in the admonition to take green mugwort, pound it, and bind it to the womb to cause abortion. The reference to the green plant might possibly be a reference to the "female" form and a

suggestion of further magical elements in this recipe, but it is equally likely to be a reference to either the use of the leaves instead of the roots or the fresh instead of the dry plant. Virtually the same procedure is recommended in GVER 31.18-21, without mentioning the use of the "green" plant. Since the GVER text is largely derived from FMAC, the duplication of recipes is not unexpected, but it is interesting to note that the later text's version has not preserved any magical flavor at all. Another recipe, from RWGH, p. 136, using a similar procedure, may be a remnant of homeopathic magic, the herbal plaster imitating the "route" which the expelled material is to take. The final caution about the great power of this remedy has a somewhat magical feeling, also:

> make a plaster of artemisia boiled in water and plaster the woman with it from the navel to the privy member, for it make a woman quickly give birth to a child whether it is alive or dead in her womb . . . but let it not remain there very long, for it will draw out the uterus also.

DLEE 123/316 has a non-magical recipe for a plaster of mugwort leaves and other ingredients to be put on "her navel and so downward" to encourage menstruation. RWGH, p. 66, mentions mugwort among the herbs that should be given to a woman with too much "calor" [hot, dry humor] to help her have normal periods. It is to be administered

non-magically as a bath and as a drink in wine. In GMER, lines 251-262, women are advised to bathe and wash with mugwort to help conception and birthing.

Magical action is much more strongly evident in the apotropaic uses recorded for mugwort. These occur in the study texts through the end of the fourteenth century in quite similar forms. Here is the earliest version, from CLEE 1 103/1:

> and in the house in which he, the man
> of the house, hath it within, it
> forbiddeth evil leechcrafts, and also
> it turneth away the eyes of evil men.

This section of CLEE 1 also states that mugwort "puts to flight the devil sickness." According to BACH 161.17-20, keeping mugwort in one's house prevents wicked ghosts and spirits from living there. GMER has two references to mugwort's power of protecting a house and its inhabitants, lines 247-250 and 275-278. FMAC 1a 25-27 reports the protective action in slightly different form. Macer records that "summe clerkes" say that if one eats or drinks this herb, no harmful medicine can hurt one and no wild beast will "gladly" [willingly?] bite. As the previous example suggests, mugwort is also believed to be effective against poisons and fevers. Its role as one of the nine magic herbs named as a counteractant to "flying venoms" in the Lacnunga has already been mentioned. That text calls mugwort "Una, oldest of herbs." FMAC 1a 28-30 recommends hanging mugwort root around one's neck with a red thread as

a protection against venomous frogs, or perhaps fish. Instead of this obviously magical protection, the writer adds that one may achieve the same effect by drinking the plant's juice in wine. As for fevers, GMER 235-236 says:

> It is gode to bere day & night
> He puttes the feuere fro his mygh [sic]

Later in the poem, lines 240-242 recommend that mugwort be mixed with rose oil and used to "anoynt" a sick man for three days. Then, "The passion of the feuers fro hym schal falle." A use of a possibly magical nine can be found in the same source, lines 280-286, where a mixture of green mugwort and horehound is to be given for nine days to cure tightness in the chest.

A very widely reported power of mugwort is its ability to prevent weariness on a journey. This occurs in texts throughout the time period of the study: CLEE 2 I.86; CLEE 1 103/1; BACH 161.15-17; GMER 245-246; GVER 31.23-24. The original source for this belief appears to be Dioscorides III.127, and most of the medieval texts record this property as matter-of-factly as he does: "If any have ye herb Artemisia with him in ye way, it dissolves weariness." CLEE 2 I.86, however, contains a distinctly magical ritual for gathering the herb for this purpose:

> For mickle travelling over land, lest he tire, let him take mugwort to him in hand, or put it into his shoe, lest he should weary, and when he will pluck it, before the upgoing of the sun, let him say first these words, "I will take

> thee, artemisia, lest I be weary on the way," etc. Sign it with the sign of the Cross, when thou pullest it up.

There is only one use of mugwort as an aid to divination in the study texts. It occurs in OLDM 58/17-18 and has no parallel in De Materia Medica. It is a simple procedure to ascertain whether a sick person will live or die. Mugwort is to be placed under the person's head while he is sleeping. If he continues sleeping, he will live, but if he wakes, he will die.

Numerous mundane uses for mugwort are recorded in the study texts in addition to those already mentioned. HMWF 72/15-73/2 has this treatment, for example, "for stinking breath:"

> Take the root of motherwort and boil it in honey, and in vinegar; and drink when you go to bed.

DLEE 189/587 lists several conditions that mugwort is good for along with various non-magical preparations to effect cures. Among the uses given are: as a diuretic; to break up kidney stones; to help those with jaundice; as a plaster on a botch [swelling]; to comfort the stomach; to help the breast; as a vermifuge; to "dissolve" fester.

Asphodelus spp. [asphodel; possibly daffodil]

The references to this plant in the study texts are somewhat mysterious in that the identity of the plant being referred to is not always clear. The asphodel is a

Mediterranean bulbous plant with yellow or white flowers borne in clusters, somewhat resembling the European daffodil [Narcissus pseudo-narcissus L.]. Dioscorides describes the asphodel in II.199. In the study texts where it appears, however, there is some possibility that the two have been confused. In GMER 503, for example, there is a plant called "affodil," for which, the writer of the poem laments, "the bucke telles nought is name in englys," and this certainly suggests that the plant is unfamiliar to the writer. OLDM 6/11-14 refers to the same plant as both "affadill" and "asphodilus," and connects them--or it--in a note to the "daffodilly." Best and Brightman[5] note the etymological connection between the daffodil and asphodel, which they say came by way of "the medieval Latin affodilus." This does little to dispell the confusion. They also note that the asphodelus has a mythical identity as "the flowers that grew in the meadows of the [Greek] underworld." Thus, it may be that the asphodel which occurs in the study texts, in its various etymological forms, is something of a magical plant by Stannard's definition, rather than a magiferous one. Even though there really is such a plant, its unfamiliarity to the English herbal writers may have had the effect of rendering it fabulous for all practical purposes. It is also possible that it was identified by some medieval English medical writers with the native and more familiar daffodil.

With one exception, all of the uses recorded for this plant are protective, mostly against "the fiend." The plant makes a rather late appearance in the study texts. The GMER text of the 1370s makes the first mention of it. It occurs subsequently in RWGH, OLDM, and AMBS.

The GMER text, lines 504-513, is the source of several apotropaic uses for asphodel. The plant, including the root, in a clean linen cloth, is said to be good for epilepsy. This is similar to Dioscorides, who recommends, II.199, drinking the roots in wine to cure convulsions. GMER goes on to claim that the plant kept in a clean linen cloth will keep fiends out of the house. Keeping this plant always on one's person prevents the fiend from having power over one, and finally, it will protect from the harms caused by men, as well as by fiends, and is thus recommended for fighters to carry. Dioscorides does not comment on the apoptropaic properties of asphodel, but Pliny remarks, NH XXI.LXVIII.107-108, "There is a tradition that if asphodel be planted before the gate of a country house it keeps away the evil influences of sorcery."

OLDM 6/11-14 reports a cure for madness which requires binding the mad person's hand behind him and then placing an "affadill" flower in his right hand. The flower causes the bonds to burst, perhaps a homeopathic metaphor for the madness which has "bound" the sufferer. This section also notes that giving the plant to drink will cure

madness. The AMBS text provides a kind of summary of the magical uses given in the earlier texts. AMBS p. 18 discusses the "daffodilly" as one of the seven herbs that are influenced by the planets. This one is reported to be under the influence of Saturn. It is said to deliver persons from madness; having it in the house keeps out devils, and carrying the root with one at night prevents fears and also protects the bearer from all hurts. The single mundane recipe found for this plant is from RWGH, p. 66, where the "affodille" is listed as an ingredient in a bath to regulate the menses. The fact that almost no mundane uses for this plant are given in the study texts seems further evidence that it was not known as such in England.

Brassica oleracea L. [cabbage]

What could be more mundane than the familiar cabbage plant? On the surface, it might seem the antithesis of a magical or magiferous plant. The cabbage family is large, and many cole plants have been domesticaled since before recorded history. Like Cinderella's common pumpkin from the garden, cabbage has a magical identity in addition to its everyday one. Although it is best known as a food plant, cabbage is used medicinally in both magical and mundane recipes.

Cabbage is used magically for different forms of protection. FMAC 17a 4-5 reports that eating "coul" first thing in the morning prevents drunkenness all day. This is ambiguous since the text does not make clear whether the cabbage thus consumed prevents one from desiring to drink alcohol or whether it prevents the alcohol that one drinks from causing intoxication. In either case, this may be a magical use of the plant for protection by preventing natural consequences. The early morning is a time often associated with magic, and it may be significant that the cabbage is to be consumed then, rather than, for example, immediately before venturing near drink. However, BACH 176.8-9 states, "This herb is good for drunkenness," which in itself is even more ambiguous and not suggestive at all of magical action. It may be an abbreviated version of Macer's claim, or the FMAC may be an elaboration of this idea, with no actual magical content. Another entry in FMAC does give a clearly magical use of the plant as a protective amulet. FMAC 17a 6-9 quotes "Mellicus," identified in a note as Meletius, a Christian monk of the sixth or seventh century, who claims that a "coul" root which has not touched the ground since it was removed from the earth can be worn around the neck to protect the uvula from sores. The special conditions of gathering the root and its resemblance to the uvula are strong evidence of magical action in this case.

Non-magical uses of cabbage are more numerous. A particularly charming one is this from DLEE 87/233 for medieval chicken soup:

> Another, if a man hath a cold. Seethe [boil] a chicken and prepare it with cabbage; and then take parsley and violet and cresses and pellitory; and pound them together, and take the juice, and seethe it with the cabbage. And then let him sip it.

HMWF 16/17-20 has this for sore feet:

> Who-so has ache under his foot for travel.--Take cumin and stamp [pound] it and mix it with oil and anoint thy feet underneath and bind a cabbage leaf thereto and it shall do away the ache.

These "home remedies" for common complaints have a comforting feeling well suited to the steady familiarity of the humble cabbage.

Calendula officinalis L. [English marigold]

Although the marigold appears in several of the study texts, magical uses are given in only three. FMAC, GMER, and AMBS overlap in the magical uses they give, but the identity of the plant intended is questionable in FMAC and AMBS.

FMAC 40b 28-41a 4 discusses this plant under the rubric "Rodewort" in a section of the manuscript not derived from the Latin Macer Floridus. FMAC 40b 28-29 says that "Rodewort is clepid solsequium in latyn and elitropia

in greke." This is interesting but not particularly helpful in identifying the plant, especially in the light of the information given in the AMBS text. This problem is discussed more fully below. The FMAC text goes on to report, 40b 29-30, that merely seeing the marigold flower will protect one from "febris acuta" all day. The pragmatic author goes on to qualify this statement by cautioning that if one is suffering from such a fever already, the sight of the flower will not effect a cure. In that case, one is advised to soak one and a half leaves of the herb in wine and to drink the wine and the leaves, FMAC 40b 31-41a 1.

The marigold section in GMER is lines 142-188. The text asserts that whoever sees a marigold in the early morning will be protected by it from fevers all that day. Next follow elaborate instructions for gathering the plant. This is to be done in August, when the plant is in flower and while the moon is in Virgo. There is also an obscure warning against the power of the planet Jupiter. The gatherer must be fasting from food and drink, "ande out of dedly synne he schuld be clene." He must also say three Pater Nosters and three Aves beforehand. Once gathered, the marigold is to be bound in "leues of lorer" [leaves of laurel] along with a wolf's tooth. The amulet prepared in this way has many remarkable powers. The person who carries it will be protected "Fro euer ilke perile." It

will prevent anyone from speaking untrue ill of the bearer, "And frend and foo bothe schal the grete/ With wordes faire and eke swete." Finally, if one has had belongings stolen by unknown thieves, one may hang the marigold amulet around one's neck at night, and one will have a vision of the thieves: "Thou shalt them bothe knawen & sene/ And what that theire condicioun bene." Several of these properties have to do with telling or revealing the truth, and since in the classical Greek tradition the laurel tree was sacred to Apollo, god of truth, it is probable that these beliefs about the marigold amulet derive, at least in part, from the classical tradition.

Rather than English marigold, some species of heliotrope may have been the plant intended to be used in this amulet preparation, however. The AMBS text, p. 4, equates the Latin "Heliotropium" and the English "marigold," but an editor's note quotes a contemporary warning not to confuse the two. This suggests that such confusion was not an uncommon occurrence. The heliotropic property of following the sun is not possesed by the English marigold, but it does somewhat resemble the sun, with its golden colored flower and rayed petals. Dioscorides describes two kinds of heliotrope and Calendula officinalis separately from both at the end of his fourth book, IV.193-195, but he makes no mention of the kinds of magical uses given in the two study texts. The AMBS

editors also suggest that the "wolf's tooth" may be a poisonous plant called wolfsbane [Aconitum napellus L.], but this does not provide a useful clue to the sources of the magical marigold amulet described.

The magical uses of marigold found in this study have no clearly identifiable source, although they appear to have some affinity with the classical tradition. They are not widely distributed in the texts, and their presence is enigmatic overall. Mundane uses for this plant occur in FMAC, BACH, and OLDM. Here is an example from FMAC 41a 102:

> For the flux.
> The leves of this herbe grunden smale and drunken wil stanche the flux.

Chelidonium majus L. [celandine]

Both Pliny, NH XXV.L.89-92, and Dioscorides, II.211, tell that swallows use celandine to restore the sight of their chicks, and both recommend it to sharpen human sight. The association of celandine and eyesight is repeated in three of the study texts; FMAC 32b 19-21 attributes it to Pliny, BACH 175.18-19 credits Plato, and GVER 39.47-48 says that Galen recommends celandine for sore eyes but makes no mention of swallows. Several recipes occur in the texts for celandine as a remedy for various eye complaints, beginning with the earliest, CLEE 2 I.ii.1. BACH 175.21-23 advises that it will heal any place on the head, but none

of these remedies employs magical means. Celandine is also used non-magically for burns and headaches in CLEE 1 75/1-7. DLEE 89/241 says to preserve the flowers in sugar and use as one would roses.

As has been noted, GMER 191-192 prescribes celandine for jaundice, probably because of the sympathetic association of its yellow flower and latex and the manifestation of the disease. This source does not mention swallows or "dimness of eyes," but it has a magical ritual for gathering the herb, lines 193-198. This specifies that the plant is to be gathered, root and all, on Lammas Day, early in the morning. Lammas is August first or second, a native pagan harvest festival. As when gathering marigold, the gatherer is to be fasting and must say three Pater Nosters and three Aves. Celandine gathered in this way enables its bearer to escape from those wishing harm. It can also be used to determine whether a sick person will live or die, lines 203-206. The herb is to be placed under the patient's pillow, and:

> If he schal dy loude schal he synge.
> If he schal leue teres schal he wrynge.

This same prophetic use of the herb is given in OLDM 58/15-16 and AMBS pp. 6-7. A final, possibly magical use of the herb is given in CLEE 2 I.45.2:

> For bite of snake again; celandine bruised, at night fasting, let the man drink three bowls full.

Dracunculus vulgaris Schott [dragonwort]

The uses of this plant demonstrate very clearly the working of homeopathic magical logic. Dioscorides sees a resemblance to a snake in the thickness and splotched appearance of the stalk of dragonwort. He also comments, II.196, that "they say" that rubbing one's hands with the juice of the plant's roots protects against snakebite. This association endured in later texts and was expanded. FMAC 25b 9-13 reports that the plant is spotted like a snake, and the juice keeps away adders, while BACH 182.10, 20-21, notes that the stalk, specifically, is like a snake and claims that after rubbing one's hands with the root, one may handle an adder without peril. GVER 43.67-68, 72-73, asserts that this herb is good for "the stinging of an adder" and for "biting of a serpent and for all manner of venom." GMER 538-551 brings all together, claiming that washing one's hands in the juice of "dragaunce" makes it possible to handle snakes safely and that the juice or a plaster of the leaves is good for snakebite. A further refinement may be evident in GMER 555, where it is stated that washing with "dragance" will make women tall and fair. It is remotely possible that this is yet another homeopathic association to the snake, since snakes are long and have smooth skin. The text makes no such explicit association, however.

HMWF 17/16-18 has this ambiguous recipe which, taken alone, might seem obviously mundane. In the context of the sympathetic association established from other sources between dragonwort and snakes, however, it may be seen to have a magical dimension. Note also that there are three ingredients in this remedy:

> Who-so has drunk poison or other venom. --Take dragannce other [and] gladyne [Iris pseudoacorus L.] and mynte, of all alike much and stamp [pound] him and temper him with wine and drink it.

CLEE 1 107-109/1 differs from the Dioscoridean account, giving a mythical origin and description of the herb:

> of this wort . . . it is said that it should be [was] produced of dragon's blood. It is produced on the tops of mountains, where bowers be, mostly in holy places . . . the netherward root is as a dragons head.

The same homeopathic use is recommended in this source as in the others, 109/2:

> For wound of all snakes, take roots of this wort dracontium, with wine, and warm it; give it to drink; it will remove all the poison.

Dioscorides, II.196, also reports that dragonwort is an abortifacient. Thirty grains of the juice of the seeds drunk with "posca", a mixture of vinegar and water, he says, will cause abortion. Also, ". . . they say that the smell thereof, after ye withering of the flowers, is destructiue of Embrya newly conceaued." The association of

withered flowers and embryos that are destroyed has a suggestion of homeopathic magical action, but Dioscorides is careful to leave this assertion in the realm of hearsay.

This passage from Dioscorides appears to be the basis for Macer's report of two properties of dragonwort. In FMAC 25b.21-22, he says that thirteen seeds of the herb drunk with "pusca" will do away with duskiness of the eyes. And in the lines immediately following, 25b.24-27, he says that the scent of the withered flowers will cause abortion, as will a suppository of the root put into the womb. The "thirteen" is almost certainly a miscopying of Dioscorides' "thirty", and Dioscorides also says that the juice of the root is a good eye medicine; so apparently, Macer has conflated different parts of Dioscorides' account. It is interesting that in Macer's version, the hearsay element is gone from his statement about the abortifacient property of the withered flowers, and a possible use of contagious magic has been added as well, with the mention of the root suppository, which does not occur in Dioscorides. Although there is not enough evidence to claim a definitely magical intention for Macer's material, unlike the account in De Materia Medica, it is not clearly mundane.

A straightforwardly mundane use of dragonwort is recorded in DLEE 41/83:

> For hot botches [swellings], to ripen them. Seethe dragance leaves and lay them on the botch. Probatum est.

The same source has another non-magical recipe as well, DLEE 167/511. This reflects Dioscorides' recommendation of dragonwort as an eye medicine:

> for the same [i.e., blurred eyes]. Take dragance and stamp [pound] it with water, and anoint the eyes therewith.

Lepidium sativum L. [garden cress]

This herb is of interest here primarily because it is used in a widely reported procedure to determine whether a patient with dysentery, or similar ailments, will recover or not. The procedure is first encountered in the HMWF text of about 1400, and it occurs subsequently in: OLDM, 1440; DLEE, 1443, in two versions; and in GVER, 1450. Although none of the accounts gives a clearly magical version of the predictive procedure, their differing degrees of magical, or possibly magical, content are interesting and might shed light on the persistence of magical practices across time. The two earliest versions, HMWF 41/14-17, and OLDM 30/34-31/2, do have the most magical feeling. Here is the HMWF text:

> For the bloody diarrhea.--If you would know whether he shall live or die, take a pennyweight of tonkarses ["town cress," garden cress] and boil it and give it to him to eat and give him to drink red wine or water. Do this three days and if he staunch he shall live and if it does not he shall die.

The OLDM text is virtually identical to this except that it specifies garden cress seed and gives no information as to

the amount of it to use. Magical elements are the three days and perhaps the red wine as a sympathetic association with blood. The DLEE text is nearly contemporary with OLDM, and yet the first DLEE version, 47/105, is at once the most elaborate and the least magical-seeming of all. In this fussy account, there are more threes, but the red wine is gone:

> Take a pennyweight of towncress and as much of parsley seed, and grind them in a pepper-quern [hand-mill] with a little pepper; then take small hedge-sloes and seethe them in rain-water and ale, and then take a little of that water that the sloes were seethed in, as much as the sick may drink at once, and put therein 3 pennyweight of that powder aforesaid and let him drink if off and do so thrice. And if he shall live it is likely it shall staunch it.

A simpler and more magical-seeming version occurs later in the DLEE text, at 173/527:

> Knowing if he that hath the flux may live or not. Take a pennyweight of towncress seed, and give the sick to eat; and after give [him to] drink wine or water, and do thus three days; and if he cease he shall live, with the help of medicines; and if he cease not, he shall die. Proved.

The latest account of this procedure in the study texts is in GVER 63.164-170. In this one, both the three days and the red wine are present.

This recipe illustrates once again the difficulties in attempting to identify magical activity in these old texts. The astringent properties of the cress and its

seed, and possibly of the red wine, may truly help mild cases of diarrhea. Three administrations may be sufficient to "staunch" a mild case but not a serious one. Thus, this recipe may represent only a kind of rule of thumb for lay medical practitioners. On the other hand, elements of magical significance are present in all of the versions recorded; so, that dimension of activity cannot be ruled out completely. The patient's state of mind might certainly be affected by the idea that the cress drink would predict chances of recovery, and this factor could be influential of the outcome, also. The second DLEE version is virtually identical with the earliest one cited, from HMWF, so no progression can be demonstrated from more to less magical versions. Perhaps what this example shows is that essentially the same procedure was known in more and less magical forms at the same time.

Mundane uses of cress are reported in RWGH, p. 66, to regulate the menses, and in CLEE 2 I.i.14:

> Again for the same [ie, a broken head], take garden cress, that which waxeth of itself and is not sown, introduce it into the nose that the smell and the juice may get to the head.

The requirement that wild cress be used could, it is true, be an instance of the unusual and therefore could suggest a magical trace in this remedy. It is more likely, though, to be a reflection of the belief expresed in HMWF 131/3-5 that "those herbs that grow in the field are better than those that grow in the town and in gardens."

Lilium candidum L. [madonna lily]

This lily, with its large, fragrant white flowers, was associated with purity long before Christian iconography made it Mary's flower.[6] While the Christian association of Mary, the immaculately pure mother of God and Queen of Heaven, with the lily no doubt reinforced and enhanced its reputation, many purifying uses of the plant are recorded in classical sources. Dioscorides, III.116, for example, recommended a preparation of lily roots to clear various skin diseases, to take away wrinkles, and as an emmenagogue. He also said that the leaves could be used against poisons, burns, and wounds. All of these uses can be found in the study texts, plus the use of the roots to reduce swellings.

BACH 196.6 says that most power of the lily is in the roots, and these are widely used in the study texts. Storms cites a charm from the Lacnunga to reduce swellings:

> Take a root of lily and sprouts of elder-tree and a leaf of garlic, and cut them into very small parts and pound them well, and put them in a thick cloth and bind on [the swelling].

He goes on to comment on the homeopathic logic at work, "The three ingredients of which the paste consists show some thickening or swelling, and just as these swellings disappear by cutting them up or pounding them, so the swelling of the patient will disappear."[7] FMAC 11a 25-27 has a paste of lily roots which will draw out a nail,

thorn, stick, or arrow from the feet or elsewhere in the body. It must be left on the affected part for three days. The magical three is supported by Christian resonances here, most particularly the specifying of a nail in the foot. Others of Christ's wounds are suggested by the thorn, the stick [spear], and arrow, as well. Dioscorides says the leaves are good for wounds but does not have this usage of roots. The root may be specified here because of the belief that it is the strongest part of the plant, or perhaps this is a homeopathic use as described by Storms since the bulbous root is "swollen", and the wounds described are likely to cause swelling.

DLEE mentions in two places an ointment to be made from lily flowers and used to "dissolve women's flowers" and draw them down. DLEE 123/314 is an apparently mundane version:

> To draw down flowers and dissolve them. Take oil of lily and annoint the privy place by the fire, and lay thereon a cloth, and put her to bed.

DLEE 209/660 is similar but with more suggestion of magic, both in the application of the ointment and in the method of its preparation, which is included here:

> An ointment to dissolve women's flowers, if she be annointed therewith from the navel downwards; and it is good for sore teats, and it is called Unguentum Lilium. Take oil of olive and stop it full of lily flowers and let it stand open in the sun nine days; and then strain it through a cloth, and let it stand again to clear another

> nine days, and then put it in a glass or in a join-pot ["a jar with a lid or stopper"] and let [it] stand long in the sun and keep it.

Dioscorides mentions an ointment "which some call Lirinum" made of lily flowers and useful to "mollify" the "hardnesses of the matrix [womb]," but he does not describe how to make it. The presence of nines in the DLEE recipe, the three periods of standing, and possibly the use of the sun's heat, all suggest a magical subtext for the preparation, perhaps of Anglo-Saxon origin.

Mandragora spp. [mandrake]

The mandrake may be the best known, or most notorius, magical herb. Its homunculus-shaped root and its scream when pulled from the ground are well-known legends in our own time. Despite its great and enduring fame, however, the mandrake does not appear widely in the study texts. This may be due to the fact that it is a Mediterranean plant not found in Britain. Grendon says that the mandrake was "liberally employed in Saxon leechdom and sorcery,"[8] but Charles Randolph in his study of mandrake lore says, "The many wonderful tales about the middle-age mandragorae (German alraune) had little to do with the real plant, which was practically unknown north of the Alps."[9] He also tells of "swindlers who went about Europe in the Middle Ages selling the images called mandragorae or alraune" which were "generally not made from

genuine mandragora, but from bryony and other easily procurable roots." These "artificially prepared" images were carved, presumably, to enhance their resemblance to the human form.[10] Thus, it is unlikely that British medical writers would have had access to true mandrake roots, although fraudulent imitations may have been available. The mandrake, then, like the asphodel, even though it is not actually imaginary, may more appropriately be given the status of a magical plant in medieval Britain according to Stannard's definition, since it was apparently known only through written sources.

The more or less fancied resemblance between the shape of the mandrake root and the human form is the obvious basis for straightforward sympathetic magical medical associations of the kind evident in the recommendations of Hildegard of Bingen, who advises eating the "head" of the root to cure one's head, or the "hand," or the "knee," as appropriate.[11] The origin of this famous idea that the mandrake root looks like a human figure is mysterious. Randolph observes that the resemblance "does not appear to be definitely stated anywhere before medieval times,"[12] although an examination of iconographic data might locate premedieval examples of the resemblance. Both Pliny, NH XXV.XCIV.147-150, and Dioscorides, IV.76, discuss the mandrake, but neither of them mentions a human root shape. Both do describe a "male" and a "female" variety,

but these are distinguished on the basis of plant characteristics suggestive of species differentiation.

The mandrake appears in the BACH text without reference to its shape. BACH 208.14-16 reports that mandrake is a very cold herb which is to be gathered when the sun is going down, and that it must be kept in the shade. The association of coldness, sunset, and shade may echo a magical gathering ritual, but Randolph says that when used externally, mandrake "seems to have had a soothing and cooling effect on the parts to which it was applied," and that it was used in antiquity for many ailments where inflammation was present.[13] The BACH text may be a reflection of this practical and mundane use for the herb.

The BACH text is unusual also in that it gives no particulars for the way in which the herb is to be gathered. Since, as Randolph observes, "a prominent feature of the mandragora superstition at all times has been the story of the peculiar ceremonies gone through with before digging the plant,"[14] it seems odd that traces of these are so rare in the study texts. The only detailed account of how to gather mandrake occurs in the very early CLEE 1 132/1:

> Thou shalt in this manner take it, when thou comest to it, then thou shalt understanest it [recognize it?] by this, that it shineth at night altogether like a lamp. When first thou seest its head, then inscribe thou

> it instantly with iron, lest it fly from thee; its virtue is so mickle and so famous, that it will immediately flee from an unclean man, when he cometh to it; hence, as we before said, do thou inscribe it with iron, and so shalt thou delve about it, as that thou touch it not with the iron, but thou shalt earnestly with an ivory staff delve the earth. And when thou seest its hands and its feet, then tie thou it up. Then take the other end and tie it to a dogs neck, so that the hound be hungry; next cast meat before him, so that he may not reach it, except he jerk up the wort with him. Of this wort it is said, that it hath so mickle might, that what thing soever tuggeth it up, that it shall soon in the same manner be deceived. Therefore, as soon as thou see that it be jerked up, and have possession of it, take it immediately in hand, and twist it, and wring the ooze out of its leaves into a glass ampulla, or pitcher . . .

This frightening passage has many elements in common with classical descriptions of how to obtain mandrake,[15] and it obviously describes a magical ceremony. Although it is not completely clear in this version, the dog is used to pull the plant from the ground because the plant is believed to kill--usually by its screams, which are not mentioned here --whoever pulls it up. It is clear from this passage that the plant's root is believed to have a well-defined human shape, although interestingly, the juice, or "ooze," of the leaves is recommended to be used medicinally.

The remedies which follow, CLEE 1 132/2-7, involve smearing the "ooze" on the forehead of someone who has a headache or who cannot sleep, "and the wort also in the

same manner relieveth the head ache; and also thou wondrest how quickly the sleep cometh." The juice can also be used to cure earache, and again, "thou wondrest how quickly the patient is healed." The following remedy for gout shows further that the idea of the root in homunculus shape was familiar to the writer of the CLEE 1 text:

> For gout, though it be very heavy, take of the right hand of this wort, and also of the left, of either hand three pennies weight, reduce to dust; give to drink in wine for seven days, the patient will be healed not only so that the remedy allayeth the swelling; but also leadeth to healing the tugging of the sinews, and wonderfully healeth both the disorders.

Later in this section, the "body" of the root is to be administered in the case of "witlessness, that is, for devil sickness, or demoniacal possession" and to cure "spasmodic action of the sinews." In the former case, it is to be given as a drink, and in the latter as an external application, mixed with oil.

The final use given for mandrake in this text is apotropaic, as a kind of exorcizing agent:

> If any see some heavy mischief in his home, let him take this wort mandragoras, into the middle of the house, as much of it as he then may have by him, he compelleth all evils out of the house.

Mentha pulegium L. [pennyroyal]

Best and Brightman note that pennyroyal "was regarded virtually as a panacea until long after the end of the Middle Ages and was officinal in the British Pharmacopoeia as late as 1867."[16] In modern herbals, it is recommended for such complaints as nausea, intestinal cramps, headaches, skin irritations, and gout. It is also known as a diaphoretic, stimulant, emmenagogue, and abortifacient. Both Dioscorides, III.36, and Pliny, NH XX.LIV.154, discuss it, mentioning all of these modern uses. The same uses also occur in the study texts, nearly all of which include pennyroyal among their remedies.

FMAC 24a 6-9 shows a suggestion of contagious magical activity in recommending that the herb be bound to the womb or navel or head to stop pain in those places. Macer, FMAC 24a 26-28, also reports that snakes eat pennyroyal to help their eyesight, which proves, he says, that the herb is good for human eyes as well. OLDM 22/1-2 repeats the advice from Macer, saying that pennyroyal can be chewed and bound to one's navel to relieve pain in the body. The same procedure is recommended, in OLDM 30/10-11, to stop swelling in the belly.

A much more definitely magical procedure is given in OLDM 60/31-61/2 as a cure for quartan fever. The herb is to be gathered on Midsummer Day [the summer solstice, June 21] after the sun sets or the next morning before sunrise.

The whole plant is to be gathered, along with the roots. The plant is then to be dried and kept until Yule [the winter solstice, December 21]. On Yule night, the plant is to be laid on the altar and left there until three masses have been sung over it. Then, "You shall see it flourish all new & new flores bring forth." It is then ready to be used medicinally. The remedy is prepared by pounding the flower and mixing it with warm wine. The patient is to drink this while both healer and patient say three prayers, the Pater Noster, Credo in Deum, and Ave Maria.

RWGH, p. 66, includes pennyroyal in a mundane emmenagogic preparation, and CLEE 1 207/94/4 tells how to use it as an abortifacient. This recipe includes a possibly magical three. It is notable, given the wide reporting of this property of the herb in both ancient and modern sources, that it occurs nowhere else in the study texts than in this early report:

> If a deadborn child be in a wifes or a womans inwards, take three sprouts of this same wort, and let them be new, so do they strongest scent, pound in old wine; give to drink.

Pennyroyal is one of three herbs in Anglo-Saxon charm 32, which records a magical use for the herb not repeated in other texts:[17]

> Again another powder and a drink against witches. Take a blackberry and lupine and pennyroyal, pound them together, sift them, then put them in a bag, lay them under the altar, sing nine Masses over them. Put the powder

> in milk and drip some holy water into it. Give to drink at three times of the day: at nine in the morning, at midday, at three in the afternoon.

Many non-magical medical uses for pennyroyal are recorded in the study texts. For example, GMER 762-764 has a mundane recipe for headache that uses "pely ryall." Lines 896-903 give another which will restore speech to someone struck dumb by illness. FMAC 23b 16-18 says that pennyroyal eaten or drunk fasting will cure pains of the heart or breast.

Paeonia officinalis L. [peony]

Peony, like mugwort, is associated with supernatural transmission of knowledge of its powers to humankind. Pliny says that the peony was "the first plant to be discovered" and that it "still retains the name of the discoverer," NH XXV.X.[18] Bonser identifies this discoverer as Paean, "the 'medicine-man' of the gods in Homer," and says that this association is responsible for the magical medical properties ascribed to the plant.[19] This derivation of the name occurs also in CLEE 1 169/66:

> This wort, which is named peony, was found by [Paeon], the chieftain, and it has its name from him.

Peony is one of several plants reported in the study texts to shine at night. CLEE 1 169/66 says it shineth at night as a light fat or lamp," and later CLEE 1 171/1 repeats the claim, "peony shineth at night as a blaze."

identifying the plants themselves. A universal standard of botanical nomenclature and taxonomy did not come into existence until the eithteenth century, with Linneaus, and there is much confusion when modern scholars try to identify plants referred to in medieval texts.

Most of this confusion has been inherited from the Middle Ages themselves. Many classical recipes were copied out by scribes perhaps only barely literate in the original language and thus prone to errors of transciption. Even highly literate scribes would make such errors occasionally. There was also the problem, mentioned earlier, that some plants native to the Mediterranean region would be unknown in Britain and might be confused with local herbs. At times, the description of a plant does not match the name given to it in the text, indicating that the copyist was unfamiliar with it. With no standard nomenclature, considerable confusion could arise from the fact that the same plant might be known by different local names in different places. This was a problem for the ancients, too, as we know from Pliny, who comments, NH.XXV.X.29, that "an added difficulty in botany is the variety of names given to the same plant in different districts." And, of course, different plants might be known by the same name in different localities. These problems would become even more acute as vernacular texts became more prevalent and more local names made their way

Mandrake, as has been noted, is another such plant. Stellaria media L. [chickweed] CLEE 1 165/61/2, Aster amellus(?), BACH 166.10-30, and Linaria vulgaris L. [toadflax], BACH 202.2-3, are also reported to have this property. The explanation for this claim to luminescence is not readily apparent, but Bonser comments on it, noting that plants which are said to shine at night are associated with the moon and are used for curing lunacy, epilepsy, and other complaints believed to by affected by the moon.[20] This property of peony is not reported by either Dioscorides, III.157, or Pliny, NH XXV.X.29 and XXVII.LX.84-87. Apparently, it is derived from Galen. Pliny does advise gathering the herb at night, but this is to avoid assault by "the woodpecker of Mars" which Pliny says will attack the eyes of anyone it notices collecting peony.

As with the other luminous plants, peony is associated with cures for madness, epilepsy, and other diseases related to the moon. FMAC 31a 16-18 claims that drinking peony seed will "do a-wey" bruises, or perhaps fractures, and other diseases caused by dreams, presumably nightmares. FMAC 31a 18-19 says that peony carried and eaten often will cure lunacy. The root must be the part intended to be eaten since the above-ground parts, including the flowers, are very toxic.[21] Dioscorides recommends peony against nightmares. He and Galen are

credited in FMAC 31a 19-33 with the advice to wear the root around one's neck to prevent epilepsy. BACH 212.21-24 reports a minor variation of this, saying that according to Galen, a child can wear the root around his neck to prevent epilepsy. This use of the root also occurs in GVER 57.131-133, where the advice is to:

> eat it and drink it and hang the root around his neck & it will help him within 15 days.

CLEE 1 171/66 has a slightly different procedure:

> For lunacy, if a man layeth this wort peony over the lunatic, as he lies, soon he upheaveth himself whole; and if he hath this wort with him, the disease never again approaches he.

Both CLEE 1 171/4 and the much later GVER 57.153-155 record the same use for peony to prevent cramps and "trembling" or "quivering." The older version is more detailed:

> For cramps and for quiverings, let the patient take this same wort, let him have it with him; then if any one beareth it with him, all evil ones will dread him.

The protective powers of peony extend even to weather magic, according to CLEE 1 171/3:

> If any one suffer stormy weather, in rowing, let him take this same wort, set ablaze for incense; the rough weather will be countermanded.

A possible example of contagious magic is this from CLEE 1 171/66, where the peony root may be functioning as a kind of amulet to help an aching joint:

> For hip bone ache or sciatic, take some portion of a root of this ilk wort, and with a linen cloth bind it to the sore; it healeth.

OLDM and HMWF have non-magical recipes involving peony. Here is a representative one from HMWF 80/1-3:

> [If a man "for-letes" his speech for sickness] Another, take savin and the leaves of the thorn [hawthorn] and take peony and pepper and stampe [pound] all together and give him so to drink.

Stachys officinalis (L.) Trev. [betony]

From the evidence of the study texts, betony is one of the most important magiferous herbs in medieval England. Margaret Ogden notes that betony has "particular prominence" in several medieval medical texts, and she goes on to wonder whether this should be attributed to a "special emphasis" on the plant in antiquity or whether it is due to the influence of a single work, De Herba Vettonica, attributed to the Roman physician Antonius Musa, who flourished around 25 BCE. De Herba Vettonica, Ogden says, was closely associated with the Herbarium of Apuleius and the Liber Medicinae of Sextus Placitus.[22] As has been shown, these texts were important sources for the medical knowledge of the later Middle Ages. And indeed, many uses of betony which can be traced to the writings of Dioscorides and Pliny are repeated in the study texts. Uses and properties of betony which derive from traditions other than the classical were also current, however. For

example, Bonser[23] quotes a Welsh recommendation to drink betony or wear its leaves around one's neck to "prevent dreams."

Many of betony's magiferous uses are against evil beings and the ills they were believed to cause, such as epilepsy, nightmares, palsy, or bloodshot eyes. The herb is also widely reported to be effective against poisons and "venomous beasts." There are a few instances of betony's being used to prevent natural consequences, specifically drunkenness and weariness from traveling. There are general statements in the study texts suggesting betony's apotropaic properties that appear to be based on Dioscorides' remark, IV.2, that the herb "keeps the soules and bodies of men." Near echoes of this occur in both Anglo-Saxon Herbal, CLEE 1, and the later GMER text. CLEE 1 71/1 says, "it is good whether for the man's soul or for his body," and GMER 44 adds a slightly Christian religious twist, "Soule & body it kepes clene." OLDM 26/7-9 has a more fullsome admonition:

> and know thou well in truth that betony is a full good herb & a holy & full of good virtues.

Throughout the texts, betony is known as "bishopwort" or "bishop's wort," further underscoring its association with the forces of good.[24]

Specific examples of betony's use against the fiend, demons, elves, or the ailments they were believed to cause

can be found in texts from across the time-span of the Middle Ages. Dioscorides, IV.2, says that betony is good against "night-walkings" and "difficult sleep," and many of the study texts relate this property as well. In addition to its general commendation quoted above, CLEE 1 71/1 says that betony "shields him [one] against monstrous nocturnal visitors and against frightful visions and dreams." Anglo-Saxon charm 28, recorded by Storms,[25] has two drinks made up of many ingredients including betony. The first is to be used "against the devil and against insanity," the second "against the temptations of the devil." HMWF 70/18-71/21 recommends eating betony while fasting or carrying it to prevent palsy. The OLDM text, 2/35-36, recommends the use of betony as an amulet to prevent nightmares, and 26/9-11 advises using it as an amulet and a drink to help those who are "light-headed," "delirious," or "travailing in sleep." The persistence of apotropaic uses for betony is demonstrated by their occurrence in the relatively late DLEE text, noted for its general lack of magical material. Here is a quotation from DLEE 123/312, in which the effective agent is implied to be the scent of the herb, which is strong and penetrating. This may be an attempt to rationalize a traditional, magical practice:

> For phantasma and delusions. Make a garland of betony and hang about thy neck when thou goest to bed, that thou mayest have the savour thereof all night, and it will help thee.

As for betony's effectiveness against venomous beasts, perhaps the most striking claim for the herb is Pliny's, that "snakes enclosed in a cirle of it lash themselves to death." This remarkable bit of information is recorded in NH XXV.LV.103-104. It is also recorded in three of the study texts from the late fourteenth century and beginning of the fifteenth, but not in any of the others. Macer Floridus recounts this property of betony, FMAC 15b 27-30, attributing it correctly to Pliny:

> As Plinius sayeth, if there be made about serpents a circle of green betony, they shall not dare to go over nor under this circle nor pass out of it, but right there they shall be [in] process of time [they shall] bite and beat themselves to death with their tails.

The GMER text, lines 96-101, gives the same account in all particulars but neglects to mention Pliny as the source. The most recent text to mention this property of the herb is HMWF. This gives a slightly domesticated, English interpretation, mentioning the adder, which is the only poisonous snake in that country.[26] HMWF 70/18-71/21 includes this statement:

> make a circle of betony & lay an adder amid the circle the adder shall not pass the circle.

Betony's more general property of efficacy against poisons and venom is widely reported in the study texts. Some of these remedies and preventive recommendations are not obviously magical, but as has been discussed, poisons

and venoms were in the Middle Ages considered to be substances of occult operation, and thus there is an inherent magical dimension in remedies against their effects. Many of the uses of betony against poisons or poisonous animals do rely on obviously magical means such as amulets.

Dioscorides, IV.1, reports that betony roots drunk in a mixture with hydromel, a preparation of honey and water, can cause vomiting. He adds that the leaves of the plant are most commonly used for medicine, however. These mixed with hydromel are a good drink against "venomous bites;" mixed with wine, they are effective against "deadly poisons." He is also the source for the frequently encountered claim that if one has drunk betony beforehand, one is safe from all poison.

Betony's power against poison is reported throughout the time period covered by this study. It is featured in the Leech Book of Bald, the earliest medical text in the English vernacular; it appears also in the GVER text of the mid-fifteenth century. The Leech Book remedy is in CLEE 2 I.45.1:

> Against poison; put in holy water
> betony and the small atterlothe,[27]
> drink the water and eat the worts.

Note that there are three ingredients, and that holy water is specified. Both of these features suggest magical action in the recipe, especially since water and the number

three figure prominently in Anglo-Saxon magic. Threes are prominent in the remainder of the passage, which goes on:

> For bite of snake, put so much betony as may weigh three pennies into three bowls full of wine, give it to the man to drink.

The Anglo-Saxon Herbal, CLEE 1, also has several remedies for poison using betony. They include a general remedy of betony boiled with wine for anyone who has drunk poison, 79/22, two similar recipes for an adder bite, 79/23-24, and a recommendation to apply pounded "betony the wort," meaning probably the leaves and stem as opposed to the roots, or perhaps the entire plant, including the roots, to the bite of a "wood hound" [mad dog], 79/25.

In the twelfth century, Macer Floridus said, 16a 1-2, that no evil drink can harm anyone who has betony about him. In the fourteenth, HMWF 70/18-71/21 repeated Dioscorides' assertion that betony can prevent harm from poisons taken subsequently. The claim is made twice in this section, "eat betony and venom shall not grieve you," and "eat betony fasting and you shall not be a-venomed that day." OLDM also gives in two places, 2/16-18 and 26/11-12, the information that a fasting drink of betony will cause one to spew up poison or venom drunk that day. Finally, GVER 87/299-300 says, "Whoever bears it upon him shall have no venomous beasts do him harm."

Betony is also widely reported to prevent drunkenness, particulary if taken early in the day or as a

fasting drink. See CLEE 1 75/14; FMAC 15b 20; BACH 170.6-8; GMER 118-121; HMWF 70/18-71/21; GVER 87.310-311 for examples. Another instance of betony's use in preventing a natural outcome is given in CLEE 1 77/17. One who is fatigued from traveling is advised to drink three cups of betony boiled in sweetened wine at night, fasting, "then will he be soon unweary."

Both the Anglo-Saxon Herbal and the "Middle English Rimed Medical Treatise" give instructions for the ritual gathering of betony. They are similar, though the earlier text is more detailed, and both may derive from De Herba Vettonica. Grattan and Singer note[28] that this work specifies that betony should be gathered in August without the use of iron. These two conditions are included in the Anglo-Saxon Herbal, CLEE 1 71/1, but iron is not mentioned in the GMER text. The Anglo-Saxon Herbal also states that the entire plant is to be taken, including the roots. Dirt clinging to the roots is to be thoroughly shaken off. The plant is then to be dried in the shade and the entire plant pulverized for medicinal use. GMER 47-48 specifies only that:

> In the monthe of August on alle wise
> It schal be gadered or ["ere"?] the sone rise.

There are a number of remedies involving betony which are ambiguously magical and which occur throughout the time-span of the study. The Leech Book of Bald has this remedy, for example, given in CLEE 2 I.7.1:

> If a man break [cough] up blood, take
> as much betony as three pennies weigh,
> rub in goat's milk, give for three days
> three bowls full to drink.

The magic number three occurs three times in this recipe, but does it have magical significance in this context? Although this is an early text, in which Anglo-Saxon influence is strong, there are no other magical elements in the recipe, and the threes could serve merely a mnemonic or other mundane purpose. Another early text, the Lacnunga, has a remedy, GSAS LXXa, "for pain in the loins." This uses "fennel seed, green betony leaf, the lower part of agrimony." Again, the presence of three ingredients is suggestive of magic, as are correspondences between the part of the body to be treated and the characteristics of those ingredients. The "seed" of the body resides in the loins, the color green is associated with health and vigor in plant life, qualities presumably to be transferred to the sick part, and the loins are in the "lower part" of the body. On the other hand, "green betony" may mean that the leaves of the plant, specifically, are to be used, and the other possibly homeopathic correspondences may be merely coincidence. The procedure given for brewing and administering a drink is certainly mundane in feeling.

The Anglo-Saxon Herbal also has examples of betony recipes in which possibly magical elements occur, but without really strong evidence that magic is involved. In CLEE 1 75/10, one is instructed to drink three cups of a

warm betony potion at night, fasting, for sore loins. In 75/12, the same drink, to be drunk fasting, for three nights, is recommended to stop costiveness. Perhaps the threes are magical; perhaps the fasting has to do with ritual purity. It is at least equally possible, however, that one or both of these elements is of mundane practicality only. The threes may be dosages, and the fasting may be to insure greater potency of the remedy on an empty stomach, for example.

A remedy in FMAC 35a 11 is also possibly magical. To cure kidney stones, betony is used with yarrow and vervain. Magically suggestive elements are the three ingredients, and the fact that all three are magiferous plants. HMWF 70/18-71/21 has a remedy for quotidian fever, often treated by magical means, using the three ingredients betony, rue, and warm water. Rue is also a magiferous plant. Even the DLEE text, a late and usually quite practical source, has the following ambiguous prescription, 137/371:

> Another for the gout in the month of May. The first Thursday drink a dishful of the juice of betony, and [all] that year thou shalt be safe from all manner of gout.

As with all magiferous plants, betony figures in a great many mundane recipes in the study texts where there are no troubling hints or suggestions of magical activity. Examples of these uses can be found from the beginning to

the end of the time period examined. The Leech Book has this non-magical remedy for nosebleed, recorded in CLEE 2 I.9.1:

> A blood stopper; eat the netherward
> part of bishopwort or drink it in milk.

The "Rimed Medical Treastise," GMER 848-853, says that betony juice can be used to clear the ears and improve hearing. GMER 1084-1089 recommends a salve of betony and swine's grease to heal a head wound. HMWF 70/18-71/21 has a veritable catalog of mundane uses for the herb. According to this passage, it breaks kidney stones; it is good for bleeding at the mouth; boiled with honey, it is good for dropsy [edema]; it is good for ringing in the ears; the powder helps bloody diarrhea, cough, and the stomach; the leaves ground small are good for swollen eyes; drinking the juice is good for oozing eyes or for those "watering of humors."

Clearly, knowledge of medicinal uses for betony was widely distributed throughout England during the Middle Ages. It is an especially good example of a magiferous plant because there are so many recorded recipes for it, illustrating a full spectrum of uses from definitely magical to certainly mundane.

Verbena officinalis L. [vervain]

Vervain has been known as a sacred herb since classical times. Pliny says, NH XXV.LIX.105, that it was

used "to sweep the tables" at feasts of Jupiter and to cleanse and purify homes, and Dioscorides, IV.61, says that it is called "sacra herba" because it was used as an amulet in purification rites.[29] In the study texts, there are recorded uses of vervain to fit nearly all of the categories of magical action established earlier in this study. It is claimed to be useful for prophesy, to interfere with natural consequences in various ways, to be effective against fevers, poisons, epilepsy, and the fiend, and to be aphrodisiac. Vervain continues to be used in present-day herbal medicine, and several of its mundane properties are still to be found enumerated in contemporary herbals.

Vervain's use in prophesy is recorded by Macer Floridus and in HMWF in substantially the same form. The earlier text, FMAC 34b.31-35, says:

> Take verveyne in thin[e] hande and aske of him that is seeck, how dost thou, or how dost thou fare, and if he say ay to the[e] well, he shal leue [live], and if he answere and seye to the[e] evell or naught, ther is non hope of his lyf in this world.

The other text, HMWF 98/22-99/5, differs from Macer's in specifying that one hold vervain in one's right hand, holding the sick person's right hand there as well, so that both are grasping the herb. This text also neglects to state what interpretation is to be made if the sick person says "naught," but otherwise it is identical with Macer's.

Interestingly, it is the later text, written around 1400, that gives a slightly more ritualistic character to the procedure by requiring that the right hands of both participants be used and that both be touching the herb.

Most of the ways in which vervain is reported to alter natural consequences are not medical. The Anglo-Saxon Herbal, CLEE 1 171/67, and Macer Floridus, FMAC 34b 7-10, for example, claim that no dogs will bark at a person who carries vervain. Likewise, GVER 91.339-340 says, "who beareth vervain upon him he shall have love and grace." Dioscorides, IV.60, is the source of a claim, which undergoes a transformation in a later text, that doves are attracted to vervain and will "gladly stay" near it. GMER 319-322 cites "master macrobius" as the authority for the claim that if vervain is thrown into a dovecote, all the doves will come together and fight one another. The Book of Secrets attributed to Albertus Magnus is the only other text in the study to mention vervain's power over doves' behavior. AMBS, pp. 15-16, follows Dioscorides' account, though without attribution, saying that vervain placed in a "dove house" will cause the birds to gather there. GMER 307-310 and AMBS, p. 16, are also the only study texts to report that a powder made from burning vervain will cause lovers to fight with one another.

Pliny reports, NH XXV.LIX.107, that "entertainment becomes merrier" when vervain is sprinkled on the dishes consumed at a feast, and Dioscorides, IV.61, says that it makes "ye guests ye merrier". This property of the herb is also given in FMAC 34b 28-30. Macer says that when it is added to food or drink, a wine decoction of vervain makes merry everyone who drinks it. These observations may reflect a medical property of the herb, since at least one modern herbal notes that vervain is a relaxant or tranquilizer.[30]

In NH XXV.LIX.106, Pliny tells that the Magi use vervain to banish fevers, and Dioscorides has some uncharacteristically magical comments on this property of the herb, as well. He says, IV.60, that merely holding branches of the herb before one "who shivers with an ague" will cure it, and in IV.61 he recommends making a drink of the stem and leaves of the plant at the third joint, counting from the ground, to treat tertian fever. For treating quartan fever, the stem and leaves at the fourth joint are to be used. The only reason to use those specific sections of the plant is the sympathetic magical association between the numbers three and four and the cycles of fever and chills characteristic of these diseases. In the study texts, FMAC 34b 23-28 instructs the practitioner to make a drink of three roots and three leaves of vervain mixed with water to give a sufferer of

tertian fever, and a drink of four roots and four leaves in water for a person with quartan fever. The same sort of magical association is evident here as in Dioscorides' remedy.

The use of vervain as a remedy or deterrent to snake bite can be found in NH XXV.LIX.107 and in Dioscorides IV.61. CLEE 1 93/8 makes even greater claims for the herb in this context:

> For bite of adder, whatsoever man hath on him this wort verbenaca, with its leaves and roots, he will be firm against all snakes.

Merely carrying the plant is sufficient protection, but note also the magical sense of the requirement that the entire plant, "with its leaves and roots," be employed. Further on in this passage, vervain is said to be useful for other poisonous bites, notably those of spiders, CLEE 1 93/9, and "wood hounds," CLEE 1 93/10. At a later point in the text, CLEE 1 171/67, vervain is recommended as a universal antidote for poison:

> Against all poisons, take dust of this same wort, administer it to drink; it driveth away all poisons also it is said that sorcerers use it for their crafts.

This last remark is probably a reference to Pliny's comment that the Magi make great use of vervain, NH XXV.LIX.106-107. He says that they "make the maddest statements about the plant" and then goes on to enumerate these. Macer Floridus, FMAC 34b 13-24, repeats Pliny's

information and agrees with him in dismissing the "witches'" claims as "idel seyinges."

The GMER text, 301-310, explains how vervain should be used to cure epilepsy and as a protection from the fiend. For both uses, it is to be ritually gathered. The method for this is given in GMER 295-300 and requires that three Pater Nosters and three Aves be said while the herb is being collected. The gathering should be done "be twixt midde marche & mydde Aprill," when the sun is in the zodiacal sign of Aries, and the gatherer must be "war and sle [careful and sly]." The poem also specifies that the moon not be in Aries, which means that the gathering is not to take place during the new moon, or the dark of the moon.

Pliny also gives a gathering ritual for vervain, NH XXV.LIX.107, derived, he says, from the practices of the Magi:

> They add that it must be gathered about the rising of the Dog-star without the action being seen by moon or sun; that beforehand atonement must be made to Earth by an offering of honey-comb and honey; that a circle must be drawn with iron round the plant and then it should be pulled up with the left hand and raised aloft; that leaves stem and root must be dried separately in the shade.

This procedure has no elements in common with that in the "Rimed Medical Treatise." The rising of the Dog-star is in August, not early spring, and the requirement that the act of gathering not be "seen" by sun or moon suggests that it should be done during the dark phase of the moon, when

neither luminary is in the sky all night. The other elaborate specifications in Pliny's account have no counterparts in the later text. It may be that the "Rimed Medical Treatise" reflects a very distorted version of Pliny's information, but it may also derive from some other source entirely, either a folk tradition or a classical source which has been lost. None of the other texts examined for this study include instructions for gathering vervain.

The GMER text goes on to say that vervain gathered in this way and put with five azure grains of "pyane" [peony] into a clean cloth and "keped clene with outen synne" will cure the "fallande euell" ["falling evil," epilepsy]. The writer attributes this cure to Hippocrates. Carrying either this preparation or perhaps the ritually gathered herb only--the text is not clear--will keep one from sin and from the power of the "fende of hell," also.

The AMBS text, p. 15, repeats the use of vervain and peony as a cure for epilepsy. For this use, it is to be gathered while the sun is "in the sign of the Ram." The writer attributes this usage to "Witches," continuing the association of vervain and sorcery reported by Pliny. The AMBS text, pp. 21-23, mentions also that vervain "putteth aback devils." This section goes on to say that vervain is an herb of the planet Venus and thus is an aphrodisiac and capable of producing an increase of prosperity:

> It is also of great strength in venereal pastimes, that is the act of generation. If any man put it in his house or vineyard, or in the ground, he shall have abundantly revenues, or yearly profits . . .

Although the aphrodisiac property is not mentioned in other texts examined, belief in it appears to have endured because it can still be found in modern herbals. Lust says,[31] for example, "vervain is considered by some to be an aphrodisiac, and it is said to secure the favor of the ladies."

As a magiferous plant, vervain also has many mundane uses, and the study texts record ambiguously magical applications for it as well. For example, FMAC 35a 1-3 says that wearing a crown of vervain will cure any headache, regardless of its cause. This is an ambiguous remedy because the means of curative action are not clear. If the position of the crown or wreath is responsible for the cure, then contagious magic may be involved. The assertion that any headache can be cured in this way is also suggestive of a magical tone for the recipe. If, on the other hand, the crown is being used as a convenient way to introduce the scent of the herb as a curative agent, then this remedy may be perfectly practical and mundane. This is unlikely, however, since vervain has no pronounced scent. FMAC 35a 11 records another ambiguous cure, for kidney stones, which uses vervain, betony, and yarrow, and which was mentioned in the discussion of betony. Again,

all of these herbs are magiferous plants, and the fact that there are three of them in the recipe is suggestive of a magical dimension, but conclusive evidence of magical activity is lacking.

Vervain's mundane use as a galactagogue appears in OLDM 27/27-28, HMWF 45/18-19, DLEE 197/622, and in modern herbals as well. Several other mundane recipes occur throughout the study texts, for example in the Anglo-Saxon Herbal, where they are scattered through CLEE 1 91/2-4, 6, etc. HMWF 30/4 tells how to use vervain to staunch bleeding by making a powder to hold in the mouth, and DLEE 167/510 has this cure "for blurred eyes:"

> Take leaves of vervain and stamp [pound] them, and make balls of them, and so bind on the blurred eyes, and thou shalt be whole the second or the third day.

Vervain is unusual, though not unique, among the plants examined in this chapter in that its sacred and magical properties were recorded in detail in antiquity and that many are still to be found in modern herbal literature. This plant thus reflects a continuity of tradition in folk medicine which is often not so easily discerned.

The thirteen herbs discussed in this chapter comprise only a fraction of the magiferous plants which can be identified in medieval English herbal texts. These particular plants were chosen because they are

representative of the kinds of magical uses to which medicinal plants are put in the study texts and because they occur frequently as simples, recipes using a single ingredient, or in recipes with only a few ingredients. This makes the task of identifying magical elements easier and more straightforward than it is in the more complex recipes, and thus makes for clearer conclusions. Now that a reasonable amount of evidence has been presented, the final chapter of this study will return to the questions posed at the beginning and attempt to draw some more general conclusions about magiferous plants in medieval English herbalism.

NOTES

[1] See E. A. Armstrong, "Mugwort Lore," Folk-Lore, 55(1944), 22-27, for examples from Asia, Africa, and the New World, as well as Europe.

[2] Storms, p. 212.

[3] Robert T. Gunther, ed., The Greek Herbal of Dioscorides, trans. John Goodyer (New York: Hafner Publishing, 1959). All citations to Dioscorides are to this edition and are given in the text.

[4] See, for example, the entries for mugwort in John Lust, The Herb Book (New York: Bantam Books, 1974); Jeanne Rose, Herbs & Things (New York: Grosset & Dunlap, 1972); Michael Tierra, The Way of Herbs (New York: Pocket Books, 1983).

[5] Best and Brightman, p. 18.

[6] Jerry Stannard, "Theoretical Bases", p. 188.

[7] Storms, p. 29.

[8] Grendon, p. 133.

[9] Charles B. Randolph, "The Mandragora of the Ancients in Folk-Lore and Medicine," Proceedings of the American Academy of Arts and Sciences, 40(1905), 487.

[10] Randolph, p. 493 and notes.

[11] Hildegard of Bingen, Physica I.56, quoted by Bonser, p. 250.

[12] Randolph, p. 494.

[13] Randolph, p. 507.

[14] Randolph, p. 489.

[15] See Randolph, pp. 489-499, for a detailed analysis of the origins of the various elements.

[16] Best and Brightman, p. 8.

[17] Storms, pp. 268-269.

[18] An editor's note, Vol. VII, p. 169, to NH XXV.XIX.1, says that "by 'discovering' a plant, Pliny seems to mean discovering its value in medicine."

[19] Bonser, p. 327.

[20] Bonser, p. 327.

[21] Lust, p. 305.

[22] Ogden, p. 26.

[23] Bonser. p. 165.

[24] "Betony" and "bishop's wort" are not always clearly synonymous. In Anglo-Saxon charm 28, recorded by Storms, beginning on p. 260, both names appear, as though two different plants were being referred to.

[25] Storms, p. 260.

[26] Bonser, p. 282.

[27] The OED says that "atterlothe" means "an antidote to poison" and that the term is "applied to several different plants."

[28] Grattan and Singer, p. 37.

[29] See Stannard, "Magiferous Plants," pp. 37-40, for a discussion of the classical origins of belief in vervain's magical properties and of its uses in medical magic in antiquity and in medieval Europe generally.

[30] Simon Y. Mills, The Dictionary of Modern Herbalism (New York: Thorson, 1985), p. 213.

[31] Lust, p. 186.

CHAPTER 5

Conclusion

Of the questions raised at the beginning of this study, the first to be addressed here is the validity of Stannard's distinctions among magical, magiferous, and mundane plants. In general, Stannard's definitions have provided a fruitful scheme for organizing the discussion of plants considered in this study and have yielded helpful insights into their different methods of action. Based on the material in this study, his definition of magical plants may benefit from a slight refinement, however. Not only imaginary plants, but also some real ones should perhaps be included in this category. Such plants as the asphodel and the mandragora, which appear to have been known in England only through written information, and which have fabulous properties attributed to them in the herbal texts, might reasonably be classed with the entirely imaginary "magical" plants existing only in written sources. Certainly, Stannard's most innovative contribution, his identification of the "magiferous" category of medical plant, is completely validated by this study.

Magiferous plants as Stannard defines them are prevalent in the medieval English herbal literature. In the texts used for this study, perhaps as many as one third of the species identified are magiferous. As has been discussed, it is not possible to be precise about the proportion of magiferous to total number of species because of the ambiguity in identifying magical uses of plants, and because there is some difficulty both in identifying and in distinguishing among the plant species that are mentioned in the texts. Although scholars appear to have gone as far as it is possible to go in ascertaining the identities of plant species in ancient and medieval texts, further study may lead to greater clarification of the standards to be used in determining whether a given recipe or procedure is in fact magical. This study has endeavored to point out where some of the difficulties with such determinations presently lie. As with the matter of species identification, final certainty of magical action in all cases is likely to remain elusive. In any event, since this study has attempted to be conservative in identifying magical action in the recipes examined, it is unlikely that further study will find a smaller proportion of magiferous plants in these texts than has been estimated here. Appendix B

gives a complete list of species identified in this study as magiferous.

Although it has not been possible to record in this study every instance of probable magical action encountered in the texts examined, sufficient evidence should have been provided to establish that certain practices are characteristic of medical magical rituals. Number magic, especially involving the number three and its multiple nine, is very prevalent in herbal medical magic. Three was recognized as a number of magical significance in all of the traditions which most informed medieval English herbalism, and this may have had a reinforcing effect on its presence and persistence in magical recipes. Specifications of color, though not so frequently encountered as those of number, are both characteristic and indicative of magical activity in the recipes examined.

The use of amulets, a form of contagious magic and a fairly simple curative or preventative procedure, is widespread in the texts. Sometimes the plant or a specified part of it is to be worn around the neck; it may also be bound to a particular part of the body or merely carried on the person. In addition to those previously discussed in this study, some further examples of plants used as amulets are: Gentiana spp., GMER 595-598; Hyoscyamus spp., GMER 492-501; Levisticum

officinalis L., GMER 901-919; Malva spp., FMAC 36a 19-21; Pastinaca spp., FMAC 21b 15-16 and BACH 170.6-9; Plantago major L., FMAC 4b 15-16, 4b 24-25 and BACH 17.17-18, 17.32-34; Polygonum aviculare L., CLEE 1 113/5; Ranunculus acris L., CLEE 1 101/10; Rumex spp., FMAC 22a 30-31; Stellaria media L., CLEE 1 165/61; Vinca minor L., CLEE 1 179. Some of these passages describe magical rituals for gathering or preparing the herbs to be used as amulets; others simply list the amulet usage along with other properties of the plants.

In some cases, amulet preparation involves the use of charms or magic words, and these are another frequent component of medical herbal magic. Virtually all of the healing charms recorded in the study texts show strong Christian influence, with the exception of some that occur in the Lacnunga. Many of them use nonsense words which appear to be derived from Church Latin. The names of saints, of Christ, or of other personages holy to Christians figure prominently in most of the charms used for healing. Healing charms can be found throughout the time-span of the study; for example, CLEE 1 203/93; GSAS XXIIIa; OLDM 18/13-30, 56/29-38, 59/29-32; HMWF 103/8-11; GMER 910-919; AMBS pp. 23-24. Spoken charms are often included in the rituals used in gathering magiferous plants, also. These tend to fall into one of two patterns. Either

they consist of Christian prayers, such as the Pater Noster or the Ave Maria, to be recited while the plant is being gathered, or they are words to be addressed to the plant itself. The latter kind frequently includes a statement of the purpose for which the plant is being picked, perhaps a means of establishing magical power over it. Representative examples of gathering charms can be found in CLEE 1 121/1 for Anthemis nobilis L.; CLEE 2 I.86 for Artemisia vulgaris L.; GMER 160-174 for Calendula officinalis L.; CLEE 1 113/5 for Polygonum aviculare L.; CLEE 1 176 for Ricinus communis L. (probably not indigenous to Britain); OLDM 59/29-32 for Tussilago farfara L.; CLEE 1 179 for Vinca minor L.

Plant signatures, a form of sympathetic magic which was elaborated upon to become the complex Doctrine of Signatures during the Renaissance, are occasionally evident in the curative ritual practices recorded in the study texts. Several of these have been discussed elsewhere in this study. Signatures are usually not identified as such in these texts, but they can readily be inferred.

Ritual elements of time are more problematical. That time was an important element in magical medicine is clearly evident from this comment, found in CLEE 2 II.34:

> According to the mans powers one
> shall administer the leechdoms

> which are suitable for the head and heart, for the wamb [sic] and bladder, and according to the time of the year; he who observeth not this, doth him more scathe than boot.

The difficulty lies in determining which references to time and timing in the recipes have magical significance and which are merely of a practical nature. In addition to the aspects of this problem which have been discussed earlier, it is interesting to note that the Anglo-Saxons' pagan religion, and thus their magic, appears to have involved sun worship.[1] There are many remedies in the study texts which specify that certain actions are to be performed at times important in the solar cycle, such as Yule, the winter solstice, occurring around December 21, and Midsummer, the summer solstice, occurring around June 21. The pagan harvest festival of Lammas, occurring on August first or second, also figures in the timing of some gathering or preparation practices for medicinal herbs. The association with the pagan holiday seems to have magical significance where Yule and Midsummer are concerned. The Christian calendar has the holidays of Christmas and St. John's Day coinciding more or less with these, and there would seem to be no particular need to specify these precise dates for other than magical reasons. In the texts, June 21 is sometimes referred to as Midsummer and sometimes as the feast or

nativity of St. John the Baptist, indicating that both pagan and Christian usages were current concomitantly. Examples of remedies involving June 21 can be found in GSAS XIV.a; CLEE 1 91/5; HMWF 78/8-9, 128/22-129/2; OLDM 30/3-5, 48/25-27, 60/31-61/2, 64/16-30; DLEE 319/1043.

Association to Lammas is less surely a sign of magical activity in the texts. The fact that Lammas celebrates the harvest is indicative of the difficulty. Recommendations to gather herbs at Lammas or in August may simply reflect the fact that the plants are at their peak then and ready for harvest. Since Anglo-Saxon holy days were closely related to the progression of the yearly solar cycle, it is certainly reasonable to expect that they might have continued to be used for calendaric purposes even after their religious or magical significance was eclipsed by Christianity.

Regarding the question of what uses were made of magiferous plants in medieval England, the evidence in this study supports the idea that certain complaints were typically treated with magiferous plant remedies. Fevers of all kinds, but especially the quotidian, tertian and quartan, epilepsy and other palsies, certain forms of insanity, and diseases caused by or believed to be caused by poisons, understood to include

infectious agents, are the most notable of these. Magiferous plants were also much used in the healing of wounds throughout the time-span of this study. In addition to speeding or aiding natural healing processes, magiferous plants were used for protection from both disease and injury. Since much disease was believed to be caused by evil spirits or demons throughout the Middle Ages, the plants' protective action was frequently apotropaic.

The study texts also record magical uses of magiferous herbs besides straightforward healing or protection. Prophesy, for example, is a traditionally magical activity in which these plants found a place. The predictive recipes encountered in the study texts have most often to do with determining whether or not a sick or wounded person will recover. Occasionally the information to be obtained is less dire, as in DLEE 175/537-538, which tells how to ascertain whether the skin disease "morphew" is curable or not in a given patient. Another pleasant example of divination is given by Storms.[2] He quotes several methods for determining the sex of an unborn child from the manuscript B.L., Cotton Tiberius A III f. 40b, which he says are probably of classical origin. One that involves plants is this:

> Take two flowers, namely a lily and a rose, put them before the

> pregnant woman and bid her take either. If she chooses the lily she will bear a boy; if she chooses the rose she will bring forth a girl.

Several examples of magiferous plants used in prophesy have been discussed. Additional ones can be found in OLDM 59, 69/14-70/1; GMER 710-717; HMWF 25/3-8; DLEE 43/93, 171/524-525, 173/527, 175/535, 203/646.

In addition to protection and prophesy, magic has traditionally been associated with the regulation of fertility and related matters. While there are scattered through the texts examined for this study many recipes which deal with the calming or exciting of lust, the facilitation of conception and childbirth, the treatment of menstrual disorders, and the expulsion from the womb of stillborn or perhaps aborted infants or fetuses, the impression is that this body of knowledge is not so well represented as might be expected. There is virtually no information on infant care, for example, in any of the study texts. It may be that infant mortality was so high that such information was not of use, or perhaps information on fertility, childbirth, and child care is more fully represented in other texts. It seems equally likely, however, that this kind of information, largely the province of women, was simply not recorded in written form. Possibly it was passed on through the oral

tradition more or less exclusively. This is a subject warranting fuller attention.

The answer to the question of whether magiferous plants are to be found throughout the time-span of this study is that they are, but this information is not so helpful as one might wish in establishing the course of belief in and use of magic in medical care during the English Middle Ages. It is true, in a very general way, that the earlier texts show more evidence of magical medical practice than later ones. Beyond this it is very difficult to go, however. Taboos, for example, are generally more prevalent in the Anglo-Saxon texts than in succeeding ones. The GMER text of the late fourteenth to the early fifteenth century, however, includes many references to the need for herb gatherers to be "clean." A recipe identified as magical in an earlier text may occur in substantially the same form in a later one; in fact, this is quite common, owing to the nature of information dissemination in the Middle Ages. However, there is no assurance that the magical elements in the recipe would have had the same significance to the users of the two texts. The example from the previous chapter of the use of Lepidium sativum in prophesy shows that essentially the same recipe can vary significantly in its magical components, and in a way

not readily explained by the idea of a progression over time. Even when magical elements are decidedly present, the texts do not often give enough information for us to be able to differentiate with certainty between what could be called "solemn" magic, in which the manipulation of supernatural forces would be perceived by the practitioner to be of central importance in effecting a cure, and a merely superstitious sort of practice, in which the magical dimension of the recipe might have much less perceived importance.

As for which traditions are the sources of magiferous plant lore, clearly, information which can be traced to the classical tradition is most widely reported and persistent. The examples from the previous chapter demonstrate how much of the magical material recorded in English medieval medical texts derives from Dioscorides and Pliny, especially. Material based on Anglo-Saxon customs, originally a more local tradition and an oral one, is less persistent. The Christian Church is no doubt responsible for the preservation of much of the Anglo-Saxon lore that has come down to us; Christianizing influences are evident in even the earliest Anglo-Saxon texts, particularly in the records of charms.

To sum up, this study has shown that magical means of medical therapy endured throughout the Middle Ages in England, although the extent to which a strong belief in magic continued is presently impossible to assess. The study has also shown that certain kinds of ailments were especially likely to be treated by magical means. By providing a sort of test case, this study has demonstrated the validity and usefulness of Stannard's distinction among types of plants found in the medieval medical literature. Finally, it has identified a number of magiferous plants and provided a discussion of the ways in which magical activity can be distinguished in medical recipes. Further work in this area may refine these ideas and test the conclusions reached here. It is hoped that this work will be helpful in further exploration of the history of medicine during the medieval period.

NOTES

1 Storms, pp. 6-11.

2 Storms, p. 203.

APPENDIX A

Key to Abbreviations Used to Identify the Study Texts

AMBS — Best, Michael R., and Frank H. Brightman, eds. The Book of Secrets of Albertus Magnus. Oxford: Clarendon Press, 1973.

BACH — Brodin, Gösta, ed. Agnus Castus: A Middle English Herbal Reconstructed from Various Manuscripts. Essays and Studies on English Language and Literature, no. 6. Uppsala: Lundequist, 1950.

CLEE 1 — Cockayne, Oswold, ed. Leechdoms, Wortcunning and Starcraft of Early England. 3 vols. Rev. ed., with a new introduction by Charles Singer. London: Holland Press, 1961.

CLEE 2 — Cockayne, Oswold, ed. Leechdoms, Wortcunning and Starcraft of Early England. 3 vols. Rev. ed., with a new introduction by Charles Singer. London: Holland Press, 1961.

DLEE — Dawson, Warren R., ed. A Leechbook or Collection of Medical Recipes of the Fifteenth Century. London: Macmillan, 1934.

FMAC — Frisk, Gösta, ed. A Middle English Translation of Macer Floridus de Viribus Herbarum. Millwood, NY: Kraus Reprint, 1973.

GMER — Garrett, Robert Max. "Middle English Rimed Medical Treatise." Anglia 34(1911): 163-193.

GSAS — Grattan, John H. G., and Charles Singer. Anglo-Saxon Magic and Medicine: Illustrated Specially from the Semi-Pagan Text "Lacnunga." Folcroft, PA: Folcroft Library Editions, 1971.

GVER Grymonprez, Pol. "Here Men May Se the Vertues off Herbes": A Middle English Herbal. Scripta 3: Medieval and Renaissance Texts and Studies. Brussels: Omirel, 1981.

HMWF Henslow, George. Medical Works of the Fourteenth Century. New York: Burt Franklin, 1972.

OLDM Ogden, Margaret Sinclair, ed. The "Liber de Diversis Medicinis," Early English Text Society, O.S. 207. London: Oxford University Press, 1938.

RWGH Rowland, Beryl. Medieval Woman's Guide to Health: The First English Gynecological Handbook. Kent, OH: Kent State University Press, 1981.

SDAT Singer, Charles. "A Review of the Medical Literature of the Dark Ages, with a New Text of about 1110." Proceedings of the Royal Society of Medicine 10(1917). Section of the History of Medicine, 107-160.

APPENDIX B

Magiferous Plants Identified in the Study

Achillea millefolium L.

Agrimonia eupatoria L.

Alchemilla vulgaris L.

Allium cepa L.

Allium porrum L.

Allium sativum L.

Aloe spp.

Anacyclus pyrethrum, DC.

Anchusa officinalis L.

Anthemis nobilis L.

Aristolochia clematitis L.

Artemisia absinthium L.

Artemisia vulgaris L.

Asparagus acutifolius L.

Asphodelus spp.

Aster amillus L.

Atriplex rosea L.

Beta vulgaris L.

Borago officinalis L.

Brassica spp.

Calendula officinalis L.

Centaurea spp.

Chelidonium majus L.

Chenopodium spp.

Conium maculatum L.

Coriandrum sativum L.

Cynoglossum officinale L.

Dictamnus albus L.

Dracontium spp.

Dracunculus vulgaris Schott

Foeniculum vulgare Mill.

Fumaria officinalis L.

Gentiana spp.

Hyoscyamus spp.

Hypericum perforatum L.

Iris spp.

Juglans spp.

Lactuca spp.

Lepidium sativum L.

Levisticum officinale Koch

Lilium candidum L.

Linaria vulgaris Mill.

Lupinus albus L.

Malva spp.

Mandragora spp.

Melilotus spp.

Melissa officinalis L.

Mentha spp.

Mentha pulegium L.

Nepeta cataria L.

Onopordon acanthium L.

Origanum vulgare L.

Paeonia officinalis L.

Peucedanum sativum Benth. (Hook)

Pimpinella saxifraga L.

Plantago spp.

Plantago major L.

Polygonum aviculare L.

Portulaca oleracea L.

Potentilla reptans L.

Poterium sanguisorba L.

Ranunculus acris L.

Raphanus sativus L.

Ricinus communis L.

Rosa spp.

Rubia tinctorum L.

Rumex spp.

Ruta graveolens L.

Salvia officinalis L.

Sambucus ebulus L.

Satureia hortensis L.

Sempervivum tectorum L.

Senecio vulgaris L.

Sonchus asper Hill.

Stachys betonica Benth.

Stellaria media L.

Thymus serpyllum L.

Tussilago farfara L.

Ulex europaeus L.

Valeriana officinalis L.

Verbascum thapsus L.

Verbena officinalis L.

Vinca minor L.

Viola odorata L.

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