

MEDIEVAL MEDICINE

THE ART OF HEALING, FROM HEAD TO TOE



Luke Demaitre



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from Head to Toe

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Praeger Series on the Middle Ages
Jane Chance, Series Editor



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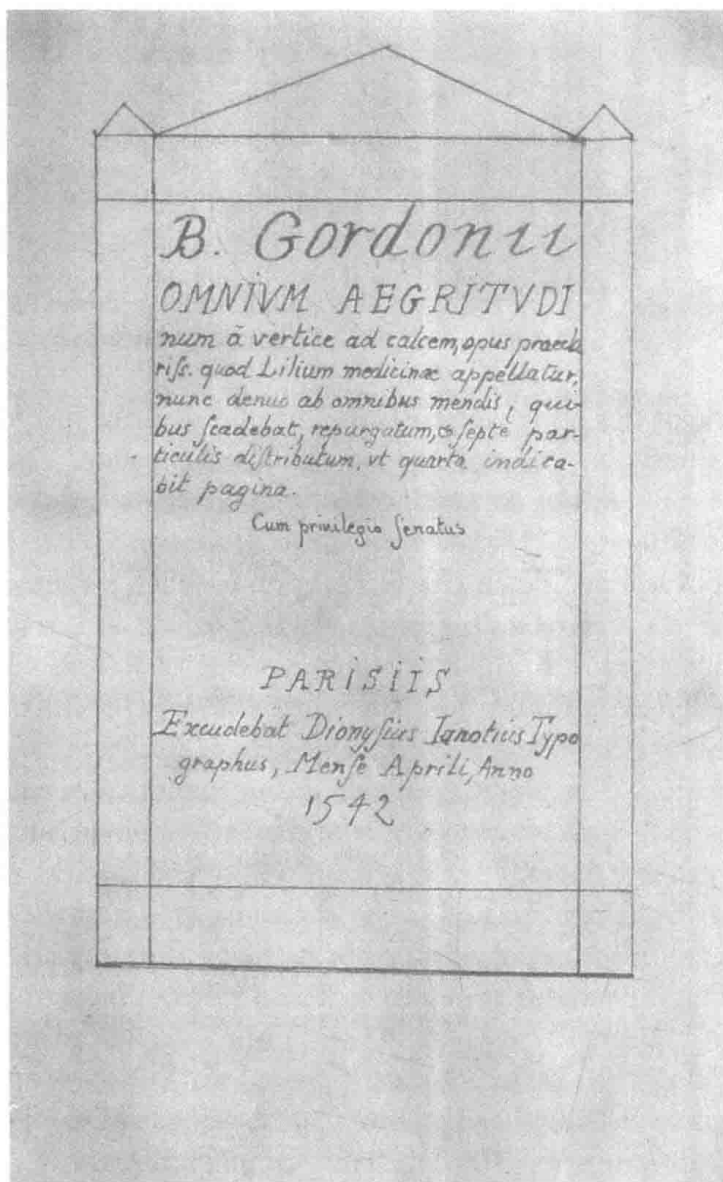
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Introduction

The subtitle of this book combines the historic name of medicine with a common phrase that has replaced the classical expression. The combination, while the result of editorial give-and-take, opens two principal perspectives for this study. Hippocrates and Galen devoted their writings to "The Art of Healing." Their characterization highlights a dimension that is crucial to an understanding of medieval learning and practice, while it is easily overlooked in the modern celebration of science and technology. From Greek antiquity to 15th-century Europe, medicine as "The Art" consisted of knowledge *and* skill, logic *and* intuition, and tradition *and* observation. The Art was both the transcendent cause and the daily practice that inspired authors to write the manuals for physicians that will be examined in these pages. For the second part of the subtitle, my original choice was "from head to heel." The choice of the idiomatically off-key expression troubled several editors, but it sprang from historical fact and semantic fancy. First, our common expression, "from head to toe," is unmatched in Latin where, in fact, the same word, *digitus*, referred both to "toe" and "finger." A Latin equivalent existed for "head to foot," but the classic phrase was "from head to heel" or *a capite ad calcem*. This was the phrase that for centuries graced the cover of medical manuals.

One such manual, and the seed of this study, was the *Practica sive Liliū medicine*, completed by Bernard de Gordon in 1305. A particularly inspiring exemplar has been a version, printed at Paris in 1542, that bears the solemn title, *B. Gordonii Omnium Aegritudinum a vertice ad calcem opus praeclarissimum quod Liliū medicinae appellatur*—note the

subtle emendation—or “from the crown of the head to the heel.” A remarkable copy is among the Vaulted Treasures in the Historical Collections of the Claude Moore Health Sciences Library in the School of Medicine at the University of Virginia. A practitioner and professor at one of the oldest universities of medicine, in Montpellier, Bernard de Gordon wrote treatises



Bernard de Gordon, *Lilium medicine*, frontispiece of *B. Gordonii Omnium Aegritudinum a vertice ad calcem opus praeclarissimum* (*The Most Distinguished Work of B[ernard] Gordon on All Diseases from the Top of the Head to the Heel*). Handwritten title page, copied by a modern (18th century?) owner to replace the original title page printed in Paris in 1542. (Courtesy of Historical Collections & Services, Claude Moore Health Sciences Library, University of Virginia. <http://exhibits.hsl.virginia.edu/treasures/bernard-de-gordon-1260-ca-1318/>)



Bernard de Gordon, *Lilium*, page on "ephemeral fever" with copious notes in Latin by a late-16th-century reader. *B. Gordonii Omnium Aegritudinum a vertice ad calcem*, Paris, 1542, fol. 3v. (Courtesy of Historical Collections & Services, Claude Moore Health Sciences Library, University of Virginia)

on diet, diagnosis, prognostication, and therapeutics. The "Lily of Medicine" was his most celebrated work. It enjoyed a wide and long circulation in Latin; it was translated into Castilian, English, French, Gaelic, and Hebrew; and it was still printed in Madrid in 1697, almost four centuries after it was written. The copious and sophisticated marginal notes in the volume at the University of Virginia attest to an enduring and active interest.

In addition to sounding too incongruous in a subtitle, the phrase "head to heel" might, at first sight, have appeared as a frivolous attempt at punning. The serious intent, however, was to project, even before a reader opens this book, my strong conviction that the wish *to heal* was the *raison d'être* of the medieval physician's manuals. The ultimate objective of the authors was neither the pursuit of profit nor the contemplation of metaphysical verities but the health of patients. Their concentration was evident in a title that several of them gave to their manual, *Practica de egritudinibus* or "practical matters about diseases." The focus of this survey, too, is on diseases, rather than on health and its maintenance (*regimen*) or on medical methodology (*ingenium*) and theory (*doctrina*). This is not a lexicon or inventory of medieval diseases, however, and even less a dictionary with modern equivalents, which would rely on retrospective diagnosis and ample anachronisms. The expression "from head to foot" might raise expectations of exhaustive coverage. Such expectations would be misdirected at an introductory survey that lays no claim to a definitive assessment. At the outset, therefore, I should alert the reader that, rather than promising completeness, the title refers to the organization and the structure of the handbooks.

I may also (try to) prevent disappointment by pointing out some of the limitations in this survey. The greatest challenge, which also faced the authors cited in this book, was finding a balance between inclusiveness and brevity. The great number and diversity of medical encyclopedias made it necessary to carve out a manageable group and, thereby, to leave aside a considerable number of very rich and relevant sources. This meant, first of all, bypassing the surgical manuals by Theodoric Borgognoni, Henri de Mondeville, Guy de Chauliac, and others; for these manuals, however, we are fortunate to have an enlightened and indispensable appraisal in Michael R. McVaugh's *The Rational Surgery of the Middle Ages*. Another group of encyclopedic documents, which awaits a synthesis, was excluded as closer to the classroom than to the bedside. This group includes a vast body of scholastic commentaries on authoritative texts that range from the Hippocratic *Aphorisms* and Galen's *Art of Medicine* to Avicenna's *Canon of Medicine* and Rhazes's *Book for Al-Mansuri*. At the opposite end of the spectrum, recipe books without reference to theory fall short of being true manuals, although many of them bear the title *Practica*. A further narrowing, to manuals that addressed neophyte physicians and schooled practitioners, entailed the exclusion of such popular health guides as the 13th-century *Treasure of the Poor* by Peter of Spain. Practical limitations forced omissions even within the tightened ambit, of several significant

manuals, including the "Practice" (*Practica*) of Petrus Musandinus, the "Mild Book" (*Liber mitis*) of Guido d'Arezzo Junior, and the "Medical Compendium" (*Summa medicinalis*) by Tommaso Del Garbo.

The dozen compendia selected for this book were compiled between the 11th and 15th centuries. I hope that the selection has yielded a reasonably reliable image of the medieval physician's manual. In addition to comparing the works as methodically as time and energy allowed, I have correlated significant propositions with their classic sources. As a general result, it has been refreshing to discover how much the authors varied in their personalities, views, and responses to tradition. This variety, together with the dynamic developments in the form and content of the manual, should contradict—as still seems necessary—the stereotypical image of medieval stagnation and derivativeness. We should keep in mind, nevertheless, that the compilers did not intend to be scientific pioneers and that their readers were not members of a Royal Society or Academy of Sciences.

It may be a relief to know that the contents of this book evolve gradually, from an inevitably didactic beginning to a more impressionistic narrative. The first chapter introduces the learned, indeed bookish, tradition that formed the foundation and context of the medical manual. The second chapter mines the manuals themselves for the framework of general and generic concepts of diseases. After a chapter on external ailments, the remaining pages closely follow the head-to-heel order, as it was perceived in medieval medicine. Most of the compilers attached some appendix to their *practica*, with material that they were unable to accommodate within the body, or which they considered of separate significance. The contents of these attachments range from antidotaries to dietetics and surgical procedures, and from cosmetics to guidelines for travel. They are so miscellaneous that they will be ignored as too distracting. For the same reason, I recount fewer details about treatments than some readers may wish: hundreds of recipes and procedures and, in fact, thousands of ingredients and steps would greatly overburden a survey, whereas general therapeutic guidelines and individual observations afford a better insight into the physician's application of learning to care.

Even on their own, independent of the compendia context, the guidelines and observations weave a rich tapestry of medieval lore and practices. They supply a wealth of quotations that are interspersed (and, wherever possible, set off as blocks of text) in my discussion, not only for the sake of illustration but also because almost nothing of this material is available in English. All the translations from the Latin are my own. In translating,

I have aimed for clarity rather than literalness. When a term was interesting or a translation open to debate, I have supplied the Latin in parentheses. I have consciously limited the use of technical jargon and listed the most crucial terms in an appended glossary. Nevertheless, a study of this kind will inevitably contain some unfamiliar words, from “anfractuous” to “zedoary,” which may prove the value of a dictionary (as they did to the writer). The woeful dearth of translated material is evident in the appended Bibliography of Sources, which identifies the texts on which my survey is based, and which, it is hoped, will serve as a plea for more translations. A separate appendix presents these texts in a chronological arrangement, which highlights the major phases in the evolution of the medical manual.

While working on this book, I have been animated by the fourth-year medical students at the University of Virginia who for more than 15 years have joined me in a History of Medicine elective, a few weeks before obtaining their MD degree. They have thrilled me with their old-fashioned love for written sources, taught me more about the science and practice of medicine than I ever found in books, stimulated me with their inquisitiveness, and inspired me with their dedication to Hippocratic ideals. As icing on the cake, I have enjoyed the warm friendship, beyond mere collegiality, of two colleagues at the University of Virginia, Marcia Childress, director of the Programs in Humanities at the Center for Biomedical Ethics, and Joan Echtenkamp Klein, curator for Historical Collections in the Claude Moore Health Sciences Library. I am also most deeply grateful to the close friends and the caring clinicians who, each in their way, healed me and thus gave me the chance to complete this labor of love.

Last not least,
as the heart beats through the body, head to toe,
so Dominique is the heartbeat of this book, cover to cover.

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Learning to Heal

Life is short, the Art long, opportunity fleeting, experience misleading, and judgment difficult. [The healer] must be prepared not only for doing what is necessary but also for making the patient, the bystanders, and the circumstances cooperate.

This is the first item in the *Aphorisms*, a collection of pithy observations by Hippocrates of Kos (460–377 BCE), who has been called the father of medicine. The *Aphorisms* were at the core of more than 50 Greek writings that, by the beginning of the fourth century BCE, coalesced into a body of instructions for maintaining health and treating disease. This body or Hippocratic Corpus stands in contrast with many other responses to disease by favoring natural over supernatural explanations, holistic over narrow assessments, and conservative over drastic measures. In addition, the writings emphasize the role of diet and lifestyle, the value of prognostication, and the sacredness of the healer's duties. The Hippocratic outlook exerted a deep influence on the development of medical teaching in the Roman Empire, in the monastic and other schools across Christendom, and in the emerging universities. The *Aphorisms*, together with commentaries, constituted the nucleus of the curriculum at the first faculties of medicine.

The first *Aphorism*, with a catchy opening phrase that has become famous in the Latin version, “Vita brevis, ars longa,” has spawned countless interpretations and profound commentaries. A simple interpretation, one of several that are possible, will guide us through much of this chapter. A single lifetime is no match for the Art of medicine. Mastering this vast and

complex art requires the combination of knowledge with skill, reason with experience, and method with intuition. This combination lies beyond the careers of many medical practitioners, through the ages and around the world. Instead, a majority of practitioners attract and retain the patient by claiming to have innate and seemingly superhuman healing powers and by demonstrating their acquired and impressively advanced expertise. The claimed supernatural ability may be an individual gift or an inherited trait. More significantly, the superior expertise is likely to transcend one person's life span by drawing on cumulative tradition. Medical lore and methods are passed on from generation to generation, most commonly by means of apprenticeships. Apprentice healers, like their counterparts in carpentry and other crafts, entrust themselves to a master (or, more frequently, to a wise woman). They learn about diseases and treatments by observing and assisting the master, and by gradually trying their own hand. This process, however, has built-in weaknesses. Observation and perception are "misleading," particularly in matters of disease, as Hippocrates warns in the *Aphorisms*. Moreover, learning by trial and error makes the patient a guinea pig, and it is especially risky in urgent cases. Learning is also hampered when pressures make, in the words of Hippocrates, "judgment difficult" and offer only "fleeting opportunity" for reflection and correction.

A few healers realized, early on, that they might reduce the risk by anchoring the transmission process more firmly. They stabilized the fleeting experience of separate cases by drawing generalized conclusions, and they remedied the deceptiveness of sense perception by positing principles that were objective or, at least, rational. The conclusions and principles were formulated in such itemized guidelines as the *Aphorisms*, to be transmitted vocally and committed to memory. To secure continuity, beyond the already considerable strength of oral transmission—which we tend to underestimate—the acquired knowledge was increasingly recorded in writing. This made it also more readily available for consultation. Scribes recorded recipes on clay tablets in Mesopotamia and on papyrus in the Nile Valley. One of the most impressive records is now known as the *Edwin Smith Papyrus*: it contains 4,000-year-old case descriptions with instructions for surgeons. This historic document (pristinely preserved at the New York Academy of Medicine) suggests a school setting, with broader interaction and reflection than in conventional apprenticeships. The case histories reflect methodical observation, and the lesson learned from each is constructed with an almost mathematical logic. The *Smith Papyrus* might be called the oldest medical textbook, if it were not limited to surgical cases, to the exterior of the body, and to injuries. Manual interventions

did not include diseases, so that the teaching of surgery covered only a part of the developing Art of Healing.

In the Hippocratic tradition, learning to heal involves understanding the nature (definition) of diseases and their causes (etiology), identifying their signs (diagnosis) and foreseeing their course (prognosis), and managing their treatment (therapeutics). The treatment proceeds from prevention and management to the application of medicines and then to manual intervention (surgery). The scope of the Art, as skill and knowledge, never ceased to grow. In a bird's-eye view and at the risk of oversimplification, we may mark several stages in this growth, from ancient Greece to the early 14th-century university. At first, the practitioner was designated in general as one who makes the patient whole, a "healer" (*iatros*)—the Greek word for "healing" (*iatria*) became incorporated in such modern terms as "psychiatry" and "pediatrics." The designation of a healer was quite fluid, and it could extend to a shaman or to anyone who treated the sick with charms and incantations—a similarly broad range characterized the title of *tabib* in early Arabic usage and of *laece* in Old English (which became "leech"). In the Roman world, the Latin title of *medicus* indicated a narrower field. The term implied privileged knowledge, as is suggested by its derivation from the Sanskrit *madh*, which is the root both of "mathematics" and "magic" and of "medicine." The nomenclature gained further precision in the Middle Ages, with the idea that healing depended on the knowledge of nature (*physica* and *phusis*, see "physics"). Together with others who understood the complexions and workings of nature, the healer was called *physicus*, which is the origin of "physician." This label reflects an overlap with the philosophical study of nature, which was rooted in the works of Aristotle (384–322 BCE).

In the nascent universities, medical teaching built on the foundation of the seven arts. The three basic arts of the trivium (grammar, rhetoric, and logic), together with the four arts of the quadrivium (arithmetic, geometry, astronomy, and music theory), were indispensable for any advanced study, and much of their relevance to medicine should become evident in these pages. The "liberal arts"—liberal or free in contrast with such utilitarian and vocational arts as agronomy, architecture, and even medicine—supplied the principal constituency as well as the administrative framework of the university. From the 13th century on, the new faculties of medicine attached themselves to this framework, while organizing their own graduate education in their charters. Moreover, the faculty members underscored their academic standing by appropriating the title of "master" (*magister*) from the schools of liberal arts and even, eventually,