INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

Xerox University Microfilms
300 North Zeeb Road
Ann Arbor, Michigan 48106

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

73-22,731

DEMAITRE, Luke E., 1935-
BERNARD DE GORDON (ca.1258-ca.1318): A REPRESENTATIVE OF THE MONTPELLIER ACADEMIC TRADITION.

The City University of New York, Ph.D., 1973
History, medieval

University Microfilms, A XEROX Company, Ann Arbor, Michigan

© 1973
LUKE E. DEMAITRE

ALL RIGHTS RESERVED

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

BERNARD DE GORDON (ca.1258-ca.1318):

A REPRESENTATIVE OF

THE MONTPELLIER ACADEMIC TRADITION

by

LUKE DEMAITRE

A dissertation submitted to the
Graduate Faculty in History in partial
fulfillment of the requirements for
the degree of Doctor of Philosophy,
The City University of New York.

1973

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

This manuscript has been read and accepted for the Graduate Faculty in History in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

May 10, 1973
date

Pearl Kibre
Chairman of Examining Committee

May 21, 1973
date

Harold C. Syrett
Executive Officer

Professor Richard Lemay
Professor Edward Rosen

Supervisory Committee

The City University of New York

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

PREFACE

The aim of this study is to illuminate the nature of university teaching at Montpellier, a leading center of learning between 1239 and 1349, and also to examine the characteristic features of a typical physician-professor of that period.

Because of Montpellier's geographical situation, economic activity, and political vicissitudes, the development of its academic tradition was exposed to the direct influences of the Greco-Roman, Judeo-Arabic, and Western Scholastic strains. The complexity of Montpellier's tradition is reflected in the genesis of her schools and in the curriculum of her University, as well as in the range of scholars and writings that emanated from the locale. Within the academic tradition our focus will necessarily be on medical thought. Not only was medicine the specialty of Montpellier, but also the University documents contain little specific information on the liberal arts and law curricula. Moreover, few members

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of the Faculties of Arts and of Law appear to have left us any writings.

During its heyday several members and alumni of the University became famous and influential, among them Ramon Lull and Arnold de Villanova, Guillaume de Nogaret and Francesco Petrarch, Henri de Mondeville and Guy de Chauliac. These luminaries, however, were connected only temporarily with Montpellier and may therefore not be truly typical of its academic tradition. One master, who may be considered more representative than his better known contemporaries, was Bernard de Gordon, who appears to have spent most of his active life at Montpellier. It is, therefore, worthwhile to examine his works and thought in relation to the Montpellier tradition and to the broader intellectual context. On his own terms, too, Bernard has a relevance beyond his own time, and we may be inspired by his concern with the integrity and erudition of both physician and teacher. He has a lasting appeal as a medieval representative of the age-old tradition of learning, and as a general practitioner who was, perhaps more than our highly specialized medical 'engineer', a man of learning.

The writings of the Montpellier authors have thus far not been treated as constituting a corpus and as re-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

lated to the curriculum, although some of these writings have been referred to separately in discussions of teaching at Montpellier. The works of Bernard de Gordon, on the other hand, have never yet been brought together for systematic and comprehensive analysis beyond the question of their chronology and bibliography, although they have been consulted by such scholars as Emile Littré and Lynn Thorndike, and they have been utilized for a few studies on particular medical topics. The comprehensive nature of the present study, together with the fact that most of the sources utilized are available only in manuscripts, in incunabula, or in almost inaccessible editions, accounts for the disproportionate length of the footnotes. In the quoted texts, the Latin spelling has been reproduced as found in the manuscripts, and no sic has been added when apparent misspellings were common usage in the period, for example c for t in -tio endings, t for ct in practica, Ypocras for Hippocrates, and so on.

Who could have guided the research better than Professor Pearl Kibre, who is so well known not only for her enthusiastic dedication to scholarship and concern with her students, but also for her pioneering studies of medieval scientific writings, universities, and the Hippocratic tradition. To her, indeed, I am deeply in-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

debted for everything valuable in this study, while I am entirely responsible for such imperfections and shortcomings as remain. I owe gratitude, moreover, to Professors Richard Lemay and Michael McVaugh, for their helpful suggestions and information; to Mrs.Alice Weaver and her staff in the Rare Book Room of the New York Academy of Medicine, for their patient and efficient assistance; and to the librarians in the Bruges Municipal Library, the Paris Bibliothèque Nationale, the British Museum, and the Vatican Library, for their services in giving me access to valuable manuscripts. Last but not least, my undying gratitude to my wife Dominique: without her loving inspiration this work would never have been undertaken, and without her enduring support it would never have been completed.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

TABLE OF CONTENTS

PREFACE .....

LIST OF ABBREVIATIONS .....

CHAPTER

I. THE DEVELOPMENT OF MONTPELLIER'S SCHOOLS: COMPLEXITY OF THEIR BACKGROUND AND TRADITION...1

The genesis of the Montpellier schools of Law, Arts, and Medicine; diversity of their backgrounds; character of Montpellier's inhabitants; the question of Judeo-Arabic and Salernitan influences in the medical schools

II. THE ACADEMIC TRADITION OF MONTPELLIER IN THE UNIVERSITY CURRICULUM 57

The Faculties of Law, of Arts, and of Medicine; relationship of Arts and Medicine; the medical curriculum; theory and practice

III. THE ACADEMIC TRADITION OF MONTPELLIER IN ITS SCHOLARS AND WRITINGS 113

The Arts Faculty; medical works: types, sources, relation to theory and practice

IV. BERNARD DE GORDON AS REPRESENTATIVE OF MONTPELLIER: EARLY LIFE, EDUCATION, AND CAREER 188

Origins and training; career at Montpellier; concern with teaching, practice, and writing

V. BERNARD'S WRITINGS AND THEIR RELATION TO THE MONTPELLIER CURRICULUM 248

Chronology and analysis of the dated works; two undated works; other possible Gordoniana;

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

evolution in Bernard's style and approach

VI. MAINSPRINGS OF BERNARD'S TEACHING: TRADITION, REASON, EXPERIENCE, NATURALISM 362

Sources used by Bernard; his attitude towards tradition; experience and reason; the central place of Nature in Bernard's etiology, methods of treatment, and ethics; Bernard's 'humanism'

CONCLUSION: BERNARD'S PLACE IN THE MONTPELLIER ACADEMIC TRADITION 456

APPENDIX I. AUTHORS AND WORKS ASSOCIATED WITH MONTPELLIER: TWELFTH THROUGH FOURTEENTH CENTURY 460

APPENDIX II. MANUSCRIPTS AND PRINTED EDITIONS OF WORKS COMPOSED BY OR ATTRIBUTED TO BERNARD .. 499

SELECTED BIBLIOGRAPHY 532

1. Montpellier
2. Schools, Universities, and Medical Education
3. Bernard de Gordon
4. Thirteenth- and Fourteenth-century Medical Authors
5. Medicine and Allied Sciences
6. Reference Works

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

LIST OF ABBREVIATIONS

For the reader's convenience, the number of abbreviations has been kept to a minimum in this study except in the appendixes, where additional lists of symbols and abbreviations will be found.

Comm. Commentary

Ed. Edited, edition, editor

Hain Ludwig Hain, Repertorium bibliographicum (Milan, 1948, reprint of 1826-1838 ed.)

Klebs A.C.Klebs, "Incunabula scientifica et medica; Short Title List," Osiris, IV(1938)

MS Manuscript: for the individual manuscripts, the abbreviations follow those used and listed in TK (for which see below)

NYAM New York Academy of Medicine

PL Joseph Migne, ed., Patrologiae Latinae Cursus Completus

Pr. Printed

TK Lynn Thorndike and Pearl Kibre, A Catalogue of Incipits of Mediaeval Scientific Writings in Latin, augmented and revised edition (Cambridge, Mass., 1963)

Tr. Translation, translated

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CHAPTER ONE

THE DEVELOPMENT OF MONTPELLIER'S SCHOOLS: COMPLEXITY OF THEIR BACKGROUND AND TRADITION

The University of Montpellier holds a leading place in the history of early universities in general, and of medical education in particular.[1] It grew out of several twelfth-century schools, and was probably first organized in the early thirteenth century. In 1220 Cardinal Conrad, legate of the Holy See, granted statutes to the Faculty of Medicine[2]; and these statutes received papal confirmation by Cardinal Guido Soranus, legate of Pope Gregory IX, in 1239.[3] This was the beginning of a golden age for Montpellier. A few years later, in 1242, Jean de Montlaur II, bishop of Maguelone, granted a constitution to the University "of the masters and scholars studying the Arts."[4] A third faculty, that of Law, was perhaps in existence by 1230,[5] although it was not until 1285 that Cardinal Johannes de Sancta Cecilia, legate of the Apostolic See, authorized the bishop of Maguelone to confer upon duly examined candidates the license to teach

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Canon and Civil Law.[6] The Law Faculty, in fact, received its statutes only in 1339 from Cardinal Bertrand, legate of Pope Benedict XII.[7] In 1289, however, by a Bull of Pope Nicholas IV, the Faculties of Canon and Civil Law, Medicine, and Arts were joined into one university or **Studium generale**.[8] The Studium could be considered incomplete, since the Faculty of Theology was incorporated into it only in 1421.[9] Nonetheless, the University already reached the peak of its fame around 1300 and continued until about 1349 to enjoy a position of prominence in intellectual circles.[10]

Historians of medieval learning have tended to present a somewhat simplified and one-sided picture of Montpellier's schools and University before 1349. Some have simply traced the individual faculties back to Bologna, Paris, or Salerno as their respective "matrices"; others have seen the University as a showcase of Jewish and Arabic influences. These views, though not without merit, nevertheless appear to obscure the richness of Montpellier's heritage and to give too little credit to its own creative contribution. On the other hand, the Medical Faculty has been credited with an historic role, namely "the formation of academic medicine."[11] And this view, too, has led to some distortion. Thus there has been a tendency to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

overemphasize the speculative direction taken in the period between 1250 and 1350, and to overlook the earlier interest in theory and the persistent concern with practice. Hence the above views should be both broadened and particularized by underlining the complexity, diversity, and continued creativity of the Montpellier academic tradition. These characteristics will not only become manifest in the curricula and in the writings of the University's "Golden Age," but they are already evident when one surveys, even perfunctorily, the earlier development of the schools.

The Faculty of Law was influenced, in its organization and orientation, by Bologna. The latter's constitution eventually served as the model for the 1339 statutes of Montpellier's studium in jure canonico et civili.[12] The first real law school itself had probably been founded in Montpellier by Bolognese masters, second-generation disciples of Irnerius, shortly after 1160. One of these disciples, Petrus Placentinus, whom a contemporary chronicle called "the first doctor who ever taught at Montpellier," had arrived around 1166 and died here in 1192.[13] One historian has suggested that Placentinus was drawn to Montpellier by its fame as a center of Talmudic legal

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

studies.[14] This theory is an interesting illustration of the tendency to ascribe the rise of Montpellier's schools to Jewish influences. However, Placentinus may actually have been preceded by the commentator Rogerius, whose Summa Codicis he completed.[15] We should realize, moreover, that these masters found the field prepared by a half century of studies on Roman Law.[16] In fact, the age-old legal tradition of Languedoc, pays de droit écrit, had firm roots in Roman Law itself.[17] This does not mean that we may discount the role of Romance, Visigothic, and local customs, or the influence of Frankish Law, which governed the lords of Montpellier.[18] In the feudal courts, too, legal interest and experience had increased with the growing numbers of notaries and advocates since the early twelfth century. By the end of the same century, furthermore, Canon Law was assuming a more dominant role, even in secular jurisprudence in Montpellier, as can be seen in the official documents of the town.[19]

A diversity of tradition, similar to that of the Law Faculty, if perhaps less impressive, can also be traced through the development of the Liberal Arts schools, even though here we have fewer specific details or data. In his Metalogicon (1159), the humanist John of Salisbury

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

alluded to some dialecticians, "Cornificii", who had found refuge in Montpellier.[20] Around the same time the above-mentioned glossator Placentinus scoffed at the false science and ridiculous procedures of the grammarians.[21] A generation later the grammarian and theologian Alain de Lille, who had studied and lectured in Paris and whose versatility earned him the title of Doctor universalis, taught at Montpellier.[22] Here he composed his Liber in distinctionibus, De arte fidei, and Liber penitentiarum; and he dedicated his Contra hereticos to Guillem VIII, lord of Montpellier.[23]

In the early thirteenth century several Liberal Arts schools seem to have sprung up in the area. Some of these schools may have been independent, others grew around the cathedral of Maguelone,[24] and still others were part of the diversely oriented monasteries founded in or near Montpellier by the Benedictines, Cluniacs, Cistercians, Trinitarians, Franciscans, and Dominicans.[25] The constitution of 1242, given to the "masters and scholars" in Arts by the bishop of Maguelone in agreement with the doctors and students,[26] was obviously intended to bring order into the rapidly growing schools. This constitution, although frustratingly brief and general,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

gives us a few additional clues about the Arts tradition. Since a candidate who had taught the Arts at Paris was explicitly exempted from the examination at Montpellier,[27] we may perhaps assume that the latter's curriculum was modeled after that of Paris.[28] The artes mentioned in the Montpellier constitution are grammar and logic, but these two headings probably stand for a wider range which includes the seven liberal arts and philosophy as well. The emphasis on one or other particular discipline presumably varied according to the orientation of each Arts school. Some schools may have prepared their students primarily for theological studies, while others may have developed in close conjunction with the medical schools. It would even seem that the Arts schools constituted the primitive nucleus of the medical schools.[29] Yet, paradoxically, the Medical Faculty served as the model for the Liberal Arts Faculty. This becomes evident in the fact that most of the stipulations of the latter's 1242 constitution are also found verbatim in the 1220 statutes of the Medical Faculty.[30]

The complexity and diversity of tradition, which characterized Montpellier's early schools of Law and of Liberal Arts, are also observable in the development of the Faculty of Medicine. Here, however, a more detailed

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

examination of the background is necessary in order to balance one-sided views that have found wide acceptance. On the one hand a leading role has been attributed both to the Jews and the Arabs in the foundation of Montpellier's Medical Faculty and in the shaping of its tradition.[31] On the other hand, this tradition has been interpreted by some as entirely dependent upon its Salernitan heritage, and by others as drastically departing from that heritage. These views, which dovetail or overlap in many instances, will be tested here by tracing the development of medicine in the perspective of Montpellier's growth as a community.

The town on the "monte pestelario" had no direct Roman origins, unlike so many other towns in the Midi, but it was formed in the eleventh century from agricultural and commercial settlements on lands given as fief to the Guillem family by Count Bernard of Mauguio (Melgueil) in 985.[32] By 1100 a wall, two hospitals, several castles, churches, and monasteries made Montpellier a safe and welcome stopover on the "Money Trail" (Camino monete), the pilgrims' road to Compostela.[33] Meanwhile, the merchants established contacts with the hinterland and with Narbonne. They even took to the sea, and Montpellier soon flourished as an important outlet to the Mediterranean, with as ports first Lattes and then

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Aigües-mortes. As in the Italian peninsula, material prosperity, intellectual exchanges, and access to exotic spices[34] seem to have favored an early interest in medicine. In Montpellier, moreover, this interest was heightened by the care taken of wayworn pilgrims and by the encouragement of the lords. We find the first medici mentioned at Montpellier in 1123 and 1125, and the first medical instruction may have started around the same time.[35] In 1137 Archbishop Adelbert of Mainz came hither to study medicine, accompanied by Anselm of Havelberg, future archbishop of Ravenna.[36] In 1153 Bernard of Clairvaux wrote to Cardinal Hugo of Ostia that Heraclius, archbishop of Lyons, had been treated --at great expense-- in Montpellier.[37] Around 1160, furthermore, John of Salisbury, the future bishop of Chartres, placed Montpellier's medical schools on the same level with those of Salerno.[38] These references by Church leaders from all over Christendom reveal the spreading renown of Montpellier, but they supply only external evidence. It was not until 1181 that there appeared the first local evidence of medical studies at Montpellier. In a declaration to his loyal subjects ("probis suis hominibus"), Guillem VIII vowed never to give "to any person the privilege to be the only one to lecture or to conduct classes in medicine (in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

facultate fisice discipline)," because, as he explained, it is unjust to give one person a monopoly on the teaching of "such an excellent science."[39] Lord Guillem, who took this measure "for the common good" as well as "for his own benefit," also gave positive encouragement to the schools by his authorization and grant of permission to all, "whoever or whenceever they are," to hold classes in Medicine.[40] However, the liberal policy of Guillem VIII did not remain viable because of the ensuing rivalry and anarchy in the schools, and also because of the character of Montpellier's inhabitants.

The first official step to remedy the growing anarchy was apparently taken in 1220 by Cardinal Conrad, with the consent not only of the bishops of Maguelone and the surrounding dioceses, "but also of the University of physicians, doctors as well as students." By a "perpetual constitution," the papal legate decreed that "no one, who has not already taught (rexerit) in Montpellier, shall henceforth teach publicly, unless he has first been examined and approved by the bishop of Maguelone with some of the teachers (regentium)."[41] Moreover, Cardinal Conrad ordered that "no one shall be in Montpellier under the title of scholar, unless he is assigned to the guidance of a certain master (nisi certi magistri sit addictus

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

regimini)."[42] The constitution further contained articles that regulated the relations both among the masters and between masters and students. For example, the masters were directed to assist each other in legal cases against non-scholars and against defaulting students; they were also enjoined from stealing each other's students.[43]

Now that the teaching of medicine had been regulated, the next task was to prevent the practice of medicine by uneducated physicians. In 1239, therefore, another papal legate, Cardinal Guido, while confirming the 1220 constitution, added an important clause. He decreed, namely, that "henceforth no one shall presume to practice unless he has first been examined by two masters," chosen by the bishop of Maguelone from the college of the masters.[44] This examination was imperative because, according to Cardinal Guido, the "inexperience of physicians," who rashly took up practice, often brought death "where life is hoped for."[45] Similarly, "the many risks of death and material loss," caused by unqualified practitioners, moved James I of Aragon to take action in 1272.[46] King James issued an edict addressed to "all persons, of both sexes, Christians and Jews," to the effect that "no one in the town (villa) of Montpellier or in the whole

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of its domain should dare to practice in any manner in the faculty of medicine without having been first examined and licensed there."[47]

Some salient features of this edict deserve further attention. To begin with the least substantial aspect, it may be noted that this was apparently the first time that the term licentia was used explicitly for the official permission to practice medicine in Montpellier. Perhaps more significant is the fact that, whereas the earlier ecclesiastical legislators had sanctioned their decrees with excommunication[48] or with "the indignation of God Omnipotent and His Holy Apostles Peter and Paul,"[49] King James added the more tangible threat of legal punishment.[50] Even so, however, the latter's ordinance seems not to have been well observed, since it was reiterated in 1281, in 1316, and in 1365.[51] It is especially noteworthy that the ordinance was actually issued and reiterated at the request of the University itself, and that the University Chancellor was to take the initiative towards prosecution by reporting the offenders.[52]

The masters and students in the University, who shared with the ecclesiastical and royal authorities the responsibility for the public interest, appear gradually to have

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

become more aware of their own interests. Thus, the author of the 1272 edict considered the practice by unlicensed persons as a threat not only to the common welfare but also to "the name and fame of the Studium" of Medicine.[53] In the reissues, moreover, the royal decree --as well as the ecclesiastical statutes-- became qualified as "privileges" granted to the University.[54] The growing guild feeling of the masters, already visible in the statutes which they drew up in 1240 to supplement those given by Cardinal Guido in 1239,[55] is poignantly revealed in several notarized letters which they addressed to the official of the bishop in 1281. On March 20 the masters complained that one Johannes de Chipro had practised medicine in violation of "the tenor and form" of their privilege, and they claimed restitution for the "expenses and damages" which they had suffered as a result of that practice.[56] The financial aspect of their complaint underscores the concrete character of the masters' guild feeling.[57] Four days later they protested further that they did not intend to renounce their privileges, "either tacitly or expressly, in word or deed"; nor would they give up any of the stipulations which regarded their "interest and welfare (utilitatem et comodum)."[58] On March 31, moreover, the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

masters objected to the official's intervention in examinations without showing his authorization; and they demanded that he should "observe, without breach, towards us and the said University, our privileges and statutes."[59] The growing insistence of the masters on the guild's privileges, as well as the complexity of their relations with temporal and ecclesiastical authorities, may be better understood in the context of Montpellier's political history.

The Montpellier burghers were of an independent breed, extremely jealous of their economic interests.[60] This jealousy is observable not only in their relations with foreigners but also with their own lords in the complex maze of feudal ties.[61] They had rebelled against the Guillems in 1141; they rebelled again in 1204, and in 1206 they rose against the Guillem heiress Marie of Montpellier and her husband, King Peter II of Aragon. The burghers also refused to support the latter sovereigns against Simon de Monfort in the Albigensian wars. Their consuls, moreover, in 1254 joined with the Lord of Narbonne against the son of Peter II, James I the Conqueror, native of Montpellier. After peace had been restored, however, James chose the city of his birth as the site for marrying his son to the daughter of Manfred

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of Sicily in 1262. Ten years later he intervened to prevent the practice of medicine in Montpellier by unlicensed persons, as has been noted above. When he came there to die in 1276, he bequeathed the city to his youngest son James, king of Majorca.

The political association with Aragon, Sicily, and Majorca should have drawn Montpellier still more into the Mediterranean orbit from which it had already profited, culturally as well as economically, for two centuries. At the same time, however, the French expansion began to encroach upon the territory. In order to protect their access to the markets in the hinterland, the consuls swore fealty to Louis IX in 1270. The successor of Saint Louis, Philip III the Bold, exploited the rivalry between James the Conqueror's sons to seize the jurisdiction of appeal in 1281. Ensuing quarrels with the consuls then forced the bishop of Maguelone to sell his rights in 1293.[62] Finally, in 1349, the French monarch, Philip VI of Valois, bought the sovereign rights from the king of Majorca, thus conquering "the last citadel" which had thus far evaded him in Languedoc.[63]

Throughout all these vicissitudes, one factor had remained rather constant: namely the close ties between the Church and Montpellier, especially the 'old

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

city' or Montpelliéret, which was the direct feudal domain of the bishops of Maguelone.[64] With the papacy, too, there were old and firm connections, established when Peter, count of Mauguio and lord of Montpellier, became the vassal of Gregory VII and the See of Saint Peter in 1085.[65] By refusing to support Peter II of Aragon, as mentioned earlier, Montpellier remained orthodox in the midst of the Albigensian heretics. It was perhaps as a reward for this orthodoxy that Cardinal Conrad, papal legate sent to investigate the troubled region, granted statutes to the Faculty of Medicine in 1220. A further reward may have been the confirmation of these statutes in 1239 by Cardinal Guido Soranus, special legate of Pope Gregory IX. In both cases the papal envoys delegated the authority of upholding the statutes to the bishop of Maguelone; and the University was made "more closely dependent upon the bishop than was the case even at Paris or in England," according to the late Professor Rashdall.[66] The emphasis, however, shifted to nearby Avignon after the papacy moved there with the election of Clement V in 1305. It was this pope who, in 1309, drew up the reading list for the students in the medical faculty and specified the number of votes for electing the chancellor and granting the license. Clement made these directives "with the advice and upon the request of our beloved sons, masters Guillermus de Brixia

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and Johannes de Alesto, our physicians and chaplains, as well as master Arnoldus de Villanova, physician."[67] Beside those confidants, "who formerly had taught there for a long time," the pope had consulted with "several other masters who are presently teaching in the aforesaid Studium, and numerous others who, promoted to the rank of master in the same place, have at divers times taught there."[68]

Manifest here are two recurrent and consequential aspects of the more than ordinary closeness between Avignon and Montpellier. Among the papal physicians several were emeriti or alumni of Montpellier; the most famous among them, Guy de Chauliac (ca.1300-1368), was to be the archiater or chief physician of three popes, namely Clement VI, Innocent VI, and Urban V.[69] Also, the pontiffs often personally intervened in behalf of the University. Illustrative of this active papal interest in the University are the letters from Pope John XXII between 1316 and 1321, in which he took up the defense of the Faculty against the royal officials of Philip IV, and backed the Faculty and Chancellor against the abuses committed by two masters of medicine.[70] Pope John, moreover, took direct action in the nomination of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

chancellors and in the promotion of students.[71] From the eleventh to the fourteenth century, therefore, Montpellier's relations with the diocese and the papacy were especially close. It is paradoxical, however, that the internal character of the University was markedly less ecclesiastical than that of most contemporary institutions of education.[72] Unlike elsewhere, celibacy was not a prerequisite to candidacy for higher office in the Medical Faculty.[73] The 1220 constitution, in fact, did not even require the clerical status for admission to the medical schools.[74] Still, Montpellier's close and enduring ties with the papacy and the diocese should serve to refute the once popular theory that the University owed its success to its independence from the Church and to the presence of 'heterodox' elements, especially Jews and Arabs. Moreover, the growing xenophobia of Montpellier's burghers supplies an additional argument against those who overestimate the role of the Jews and Arabs in the development of the Medical Faculty and its tradition.

The position of the Jews in Montpellier from the twelfth to the fourteenth century may be gleaned from the following sketch. Commerce presumably attracted many Jews to Montpellier, and their numbers swelled when

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the fanatically intolerant Almohades occupied the Spanish peninsula in the 1140s. The peripatetic rabbi, Benjamin of Tudela, visiting the city in 1173, related that he found several Jewish scholars among the great number of foreigners there. It is worth pointing out, however, that Benjamin did not mention one physician.[75] The Jewish immigrants appear, moreover, not to have become truly assimilated with the local population. Already in 1121 Guillem V had excluded them from candidacy to the office of bailiff and had imposed upon them the taking of a special oath.[76] Furthermore, a synod of bishops, convened at Montpellier in 1195, prohibited Christians from entrusting their children to Jewish or Saracen families.[77] Less than a decade later, in 1204, the Jews were ordered to get water and meat only in the places assigned to them by the town consuls, and heavy fines were set upon calling a Christian "a descendant of Saracen or Jew."[78] In 1239 the papal legate, Cardinal Guido, seems to have forbidden Montpellier Christians to seek either treatment or counsel from Jewish physicians.[79] All this betrays a xenophobia that is rather surprising in an international center of trade.[80] The anti-Semitism was hardly less bitter than in northern Europe, and it increased steadily until the Jews were expelled from all

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

France by Philip the Fair in 1306. Although they were briefly readmitted to Montpellier by Don Sancho in 1319, several of them were massacred --together with lepers-- by 'Little Shepherds' the following year.[81] It might be argued that the growing anti-Semitism was primarily either political or popular in origin, and that the intellectual as well as commercial circles at Montpellier were evidently more cosmopolitan. This argument finds support not only in the initial admission of the Jews to the town, but also in the scholarly contacts between Christians and Jews. As examples of such contacts may be cited the debate between Dominican theologians and Languedoc rabbis at Montpellier in 1269,[82] and the cooperation between university masters and Jewish scholars in the last quarter of the thirteenth century.[83] However, even the learned Christians appear to have been affected by the widespread anti-Jewish prejudice. Thus, master Bernard de Gordon, who had requested the Jewish scholar Profacius to draw up an astronomical chart, in 1303 uncritically subscribed to an anti-Jewish myth. In his Lilium medicine, Bernard asserted that "Jews most often suffer from bleeding hemorrhoids for three reasons," namely because they are usually idle, they are commonly "in fear and anxiety," and they are punished by God

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

with "eternal opprobrium."[84] It is also more than suggestive that, in the same work, Bernard remarked very casually that he had learned the food-retaining powers of the stomach by observing "the Jews when they are hung by their feet."[85] A further indication that anti-Semitism had pervaded intellectual circles is found in the attitude of Bernard's more famous contemporary, Arnold of Villanova. Master Arnold complained to Pope Boniface VIII about the fact that the French prelates were attended by Jewish physicians.[86] It is, then, hardly surprising that in 1363 one of Montpellier's most illustrious alumni, the surgeon Guy de Chauliac, was to join the populace in blaming the Jews for the Black Death of 1348.[87]

The conclusions with regard to the role, which the Jews played in the history of medical education in Montpellier, may be summed up as follows. The assumption, that Jewish interest in medicine and the early presence of Jewish physicians stimulated the rise of Montpellier's first medical schools, is plausible but thus far unsubstantiated. Less plausible is the theory that a "Jewish academy" constituted the nucleus of the medical University,[88] or that "the Jewish community supplied numerous students to the new University."[89] The

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

University, developing as a Christian guild with such religious requirements as attendance at Mass, regular confession, and oaths on the Gospels,[90] was not likely to attract or to admit unconverted Jews. Moreover, in view of Montpellier's growing xenophobia and her enduring ties with the Church, it is difficult to subscribe to the assumption that "the apogee of Jewish influence in the Faculty" of Medicine was reached in the thirteenth century.[91] Even more farfetched seems the claim that the Jews around 1300 supplied the University with a chancellor, Profatius Judeus.[92] Their role, therefore, is more accurately described as that of a "trait d'union scientifique" between Islam and Christendom,[93] mainly by their transmission and translation of a number of Arabic works from Spain.[94] Even this role, however, should not be overstated in the particular case of Montpellier, where it seems to have been limited to the thirteenth century. It is significant that, from the beginning of the fourteenth century on, several Montpellier writings were translated from Latin into Hebrew.[95] Evidently the tide was turning as the Jewish scholars were now borrowing from Christian, rather than from Arabic, sources.

The importance of the Arabic influence, like that of the Jewish contribution in shaping Montpellier's medical tradition, cannot be denied but should not be exagger-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ated. Montpellier was in close contact with the Muslim world through active economic and political connections with Spain, the Mediterranean, and the Levant itself. It appears, moreover, that there was an early Arab colony in the city.[96] However, it is difficult to substantiate the claims that the Arabs were "intimately mingled with the life of a city in which their role was important,"[97] or that the size of their colony was still "considerable" in the thirteenth century.[98] We need not even examine further the obviously erroneous allegation that the University was "founded by Arabic physicians driven out of Spain" and then "was re-founded as a distinctly ecclesiastical institution in the thirteenth century."[99] Of more direct relevance for us is the hypothetical but related view that Arabic influences and "Arabism" constituted the essential factor in the University's medical tradition.[100] This view is found in three versions, which can be dealt with along chronological lines. In the first version, Arab physicians molded Montpellier's medical thought in the twelfth century, and then "lost their influence on the school in the beginning of the thirteenth century"[101]. According to the second version, in the thirteenth century Montpellier became an "Arabist centre" and played a leading role in the arabization of Western medicine[102]. While the final version

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

holds that Arabism reigned supreme at Montpellier throughout the fourteenth century and until the end of the fifteenth.[103] The second and third versions will be examined in the following chapters on the University curriculum and writings, but we may address ourselves here to the first version, namely the assumption that the Montpellier medical tradition was shaped primarily by Arabic influences.

Because of Montpellier's many contacts with the Muslim world, Arabic influences may have streamed in as freely as the Oriental commodities. No one, however, can determine precisely from what moment and to what extent this element became fused with the Greek and Roman influences which were so strongly entrenched in the area between Marseille and Narbonne. It seems, for example, one-sided to ascribe the development of medical studies at Montpellier primarily to 'Saracenic' influences.[104] Montpellier very probably benefited from the continuity of a medical tradition that predated the rise of the Arabic cultural 'empire.'[105] Several scholars have already drawn attention to that continuity as evidenced in Latin manuscripts that date back to the tenth, ninth, and even eighth, centuries.[106] It is worth noting that a considerable number of these early manuscripts are found at Montpellier.[107] From the provenance of these manuscripts, moreover, it appears that the monasteries played

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

an important role in preserving the Greco-Latin medical tradition. In the immediate vicinity of Montpellier there were such flourishing Benedictine monasteries as Aniane, founded in 782 by the reformer Benedict of Aniane, son of the count of Maguelone; and Gellone, founded in 804. By the eleventh century both these monasteries had active schools,[108] in which presumably medicine was taught along with the traditional seven liberal arts.[109] Furthermore, the medical tradition, preserved in the monasteries, was soon activated by the establishment of the hospitals.[110] It is, in this regard, again a striking fact that Montpellier had eight hospitals by the end of the twelfth century.[111]

Hence, on the question of the paramount influences shaping medical teaching and practice at Montpellier, it may be assumed that the Arabic element had significant predecessors. The evidence provided by the manuscripts, monasteries, and hospitals suggests that there was in Montpellier a medical tradition more ancient, more dynamic, and more varied than has generally been thought to be the case. In the twelfth century, moreover, the earlier tradition was apparently reinforced by the influence of Salerno. Among the earliest known Montpellier physicians there were several alumni of the Salernitan schools. Bernardus Provincialis, for example, who practised and wrote in Mont-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

pellier around 1150, was a disciple of Bartholomeus Salernitanus.[112] The latter is obviously to be distinguished from another Bartholomeus who, after failing the examination at Salerno, came to Montpellier with bitter scorn for his Salernitan masters.[113] Another Salerno alumnus who came to Montpellier, namely Mattheus Solomon, was highly praised by Aegidius Corboliensis, the most zealous propagator of Salernitan learning.[114] Aegidius himself, however, found Montpellier inhospitable to his person and to his teachings, and he soon left for Paris.[115]

From the different ways in which the abovenamed Salernitan alumni came to Montpellier it would appear that, between 1150 and 1200, Montpellier's relation to Salerno was developing from dependence on its "Alma Mater"[116] to independence and even rivalry.[117] In the intervening decades, furthermore, both schools were frequently mentioned together in the criticism or praise of contemporary writers. It has been mentioned earlier, for example, that around 1160 John of Salisbury scoffed at the dilettante philosophers who went "to Salerno or to Montpellier to become pupils (clientuli) of the physicians," and who soon returned "showing off Hippocrates or Galen."[118] A generation later Guyot de Provins echoed the same criticism of the neglect of serious philosophy

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

at Salerno and at Montpellier.[119] The two schools were also paired in a similar complaint which Guyot's contemporary, Alfred of Sareshel, inserted in his treatise De motu cordis.[120] It seems ironic that Alexander Neckam, to whom the De motu cordis was dedicated, praised rather than criticized both "Salerno and Montpellier where the diligent skill of medical students, serving the public welfare, provides remedies to the whole world against bodily ills."[121] It may be noted that the citations of Guyot de Provins, Alfred of Sareshel, and Alexander Neckam appear to be the last instances in which both schools were named together. By the middle of the thirteenth century the fame of Salerno began to wane, while that of Montpellier was rising towards its peak. The Salernitan inspiration, however, lingered on for another century at Montpellier, as the study of the curriculum and writings will demonstrate.

The influence of Salerno on Montpellier's medical tradition, like that of Bologna on its law teaching and that of Paris on its arts curriculum, was important but not all-embracing. When the influences from those three great centers of learning are added, together with the Judeo-Arabic contribution, to the surviving Greco-Roman

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

legacy and the dynamic native element, one realizes the complexity and diversity of Montpellier's academic tradition. This complex tradition will be revealed further by a careful examination of the curriculum and writings of the University.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NOTES TO CHAPTER ONE

1. The most comprehensive treatment of the University's development and organization is still that by Hastings Rashdall, Universities of Europe in the Middle Ages, New Edition by M.Powicke and E.B.Emden (London, 1936), II, 116-139. Somewhat revisionist is the recent brief study by Marcel Bories, "Les Origines de l'université de Montpellier," in Les Universités du Languedoc au XIIIe siècle (Montpellier, 1970), pp.92-107. However, Bories seems to use the terms "faculté" and "université" rather loosely.
2. Cartulaire de l'Université de Montpellier, ed.by Alexandre Germain, Vol.I (Montpellier, 1890), No.2. Vol.I of this Cartulary, which contains the documents before 1400, is hereinafter referred to as Cartulaire.
3. Ibid., No.4. The statutes were amended in 1240: ibid., No.5. In 1258 Pope Alexander IV personally confirmed the statutes of 1220: ibid., No.8.
4. Ibid., No.6.
5. Ibid., No.3, a letter by which King Louis IX authorized the bishop of Maguelone to receive an oath of obedience from the masters and doctors in Canon and Civil Law. This letter, however, has been exposed as a forgery: see Charles Thouzellier, La papauté et les Universités provinciales en France dans la première

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

moitié du XIIIe siècle (Montpellier, 1952), p.9.

6. Cartulaire, No.17.
7. Ibid., No.65.
8. Ibid., No.20.
9. Cartulaire, Vol.II (Montpellier, 1892), No.12.
10. There were probably internal causes of a decline in Montpellier's prominence after 1349. Several documents in the Cartulaire convey the impression that already the 1320s were a decade of crisis: No.30(1320) refers to gangs, clashes between the provinces, and general lawlessness; No.39(1320) deals with two masters who have insulted and beaten the chancellor; No.44(1327) contains a safeconduct, given by Charles IV to the University; and Nos.45-50(1327-1330) relate to the bitter conflict between "town and gown" with regard to the importation of wine.

The external causes for the decline appear to have been many: the Black Death of 1348; the foundation, in 1349, by Peter of Aragon of a school in Perpignan, which drew off the students from Rousillon and Cerdagna; also the Aragonese, Majorcan, English, and Burgundian students may have ceased coming after the purchase of the Montpellier territory from Jaime III of Majorca by Philip VI of France in 1349 --note that this pur-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

chase came at a time when French international prestige was at a low ebb, between the defeats at Crécy in 1346 and at Poitiers in 1356--; Montpellier was plundered by French companies in 1365; the Western Schism in 1378 presumably caused deep confusion in Montpellier, whose University had close ties with Avignon; in the same year the Montpellier burghers rebelled against their lords and, in 1379, they were subdued by the Duke of Anjou, who then burdened the town with heavy taxes; nearby Orange, finally, attempted to usurp the status and privileges of Montpellier.

11. "L'Université de Montpellier s'acquitta facilement du rôle que lui avait assigné l'histoire: la formation de la médecine académique," Stephen d'Irsay, Histoire des Universités Françaises et étrangères des origines à nos jours, Tome I. Moyen Age et Renaissance (Paris, 1933), 120.

12. Compare Cartulaire, No.65, and A.Sorbelli, Storia della Università di Bologna, I (Bologna, 1944),pp.84 ff.

13. "Anet a Dieu M.Placentin loqual fo lo primer doctor que jamais legi en Montpellier e fo sebeli en lo cimetiere da Sant Bertholomieu...," Thalamus Parvus Montispessulanus (Montpellier, 1836), I.Chronique Romane, p.350. The title "doctor" should, of course, not be interpreted literally, since at the time no

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

such titles were conferred formally.

14. Marcel Fournier, Histoire de la Science du Droit en France, Vol.III. Les Universités françaises et l'enseignement du Droit en France au Moyen-Age (Paris, 1892), p.350.

15. For the most recent defense of this hypothesis, see Carlo Guido Mor, "A l'Origine de l'Ecole de Montpellier: Rogerius ou Placentin?" Recueil de mémoires et travaux publiés par la Société d'Histoire du droit et des institutions des pays de droit écrit, fasc.VI (1967), pp.15-62.

    Placentinus' Summa was edited by Gustav Pescatore, Summa "Cum essem Mantuae" sive de accionum varietatibus (Greifswald, 1897).

16. As evidence, Carlo Mor cites the composition of the Exceptiones Petri and the presence of a complete Codex Justiniani at Montpellier before 1150: "A l'Origine," p.21.

17. For an excellent survey of "la multiplicité du droit" in Languedoc, which "ne pouvait qu'engendrer une diversité d'enseignements," see Henri Gilles, "L'Enseignement du Droit en Languedoc au XIIIe siècle," in Les Universités du Languedoc, pp.204-229.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

18. See Jean Baumel, Histoire d'une Seigneurie du Midi de la France; Naissance de Montpellier (Montpellier, 1969), pp.178-179.
19. Ibid., pp.209-216.
20. Metalogicon, I.3, tr.Daniel McGarry (Berkeley, 1962), pp.17-20.
21. Baumel, Seigneurie, p.181, without specific reference.
22. Ibid., p.182. In spite of the theological character of his Montpellier works, Alanus probably taught arts rather than theology here; he may have come here as the private tutor to Guillem VIII. See also Marie-Thérèse d'Alverny, Alain de Lille; Textes inédits, avec une introduction sur sa vie et ses oeuvres (Paris, 1965).
23. See Etienne Delaruelle, "Théologie et Médecine à Montpellier," in Les Universités du Languedoc, p.231. According to Baumel, however, it was the De arte fidei which was dedicated to Guillem VIII: Seigneurie, p.182.
24. Baumel, Seigneurie, p.181.
25. For the monasteries, see ibid., passim. For the mendicant convents, see Richard W.Emery, The Friars in Medieval France (New York, 1962), p.74.
26. "... de communi consensu et consilio universitatis tam doctorum quam discipulorum...," Cartulaire, No.6. The statement of Rashdall that "The statutes are not

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

made by the masters, but imposed upon them by the authority of the bishop," seems too strong; Universities, II, 134.

27. "Si quis tamen rexerit Parisius in artibus, non examinetur," Cartulaire, No.6.

28. It is, in this respect, ironic that the University of Paris was to complain in 1292 that her masters were not allowed to teach at Montpellier, in spite of their licentia ubique docendi: Marcel Fournier, Les statuts et privilèges des universités françaises depuis leur fondation jusqu'à 1789, III(Paris, 1894), 1290. For more on the relation between the Paris and Montpellier curricula, see chapter II below.

29. See d'Irsay, Universités, I, 118; Delaruelle, "Théologie et médecine," pp.232-234. See also chapter II below.

30. One of the few significant differences between the two documents (Cartulaire, Nos.2 and 6) regards the highest offices in the University. The "Cancellarius Universitatis scolarium," defined in 1220 as "magister electus ad cognoscendum de causis civilibus," does not appear in 1242, when a "rector Universitatis" is mentioned. On the other hand, the master who had the task of announcing academic recess is in 1220 designated only as the one "qui prius et plus magistraverit," whereas in 1242 he becomes "magister qui Decanus appellabitur."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

31. The contribution of Jews and Arabs was emphasized especially by Paul Delmas and Charles Guérin-Valmale, "L'hippocratisme montpelliérain; ses origines; Rôle prépondérant des Fils de l'Islam et des Enfants d' Israel," Aesculape, XIII(1923), 2-6 and passim. The same view was summarized in the statement of George Sarton that the medical school of Montpellier "was partly a Jewish creation, and it is said that the earliest teaching was in Arabic and Hebrew," Introduction to the History of Science, II(Baltimore, 1953), 352. The Judeo-Arabic role was minimized, on the other hand, by Ernest Wickersheimer, "La question du judéo-arabisme à Montpellier," Monspeliensis Hippocrates, VI (1959), 3-7. A compromise between the above viewpoints was suggested by Josuah Leibowitz, "Médecins juifs au début de l'École de Montpellier," XVIe Congrès International d'Histoire de la Médecine, Résumé des Communications, I(Montpellier, 1958), 17-18.

32. For the historical information in these pages, as well as for the orthography, I have followed the most recent, comprehensive, and documented history of early Montpellier: Baumel, Seigneurie. Traditionally, the name Montpellier was believed to be derived from "Mons pistillarius" (Mount of the Pestle), referring to the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

early spice trade. For other etymologies see Baumel, ibid., pp.48-50; Baumel finds more plausible the interpretation based on "pastel" or dye, since Montpellier's earliest renown seems to have been built on its textile industry.

33. This was the old Domitian highway (built on the still older Heraclian highway) from Nîmes to Narbonne and into Spain: Baumel, ibid., p.15.

34. However, see Baumel, ibid., p.100, who has found no evidence of any spice trade in the twelfth century.

35. Ibid., p.104.

36. Anselm of Havelberg, Vita Adelberti, in Philippe Jaffé, Bibliotheca Rerum Germanicarum, III (Berlin, 1864),592.

37. "...cum medicis expendit quod habebat et quod non habebat," Bernard of Clairvaux, Epistola 307, in Joseph Migne, Patrologia Latina, CLXXXII(Paris, 1855),512.

38. Metalogicon, tr.McGarry, p.17.

39. "...quod ego, de cetero, prece aliqua vel precio seu sollicitacione alicuius persone, non dabo concessionem seu prerogativam aliquam alicui persone, quod unus solus tantummodo legat seu scolas regat in Montepessulano, in facultate fisice discipline, quia acerbum est nimium et contra fas et pium, uni soli dare et concedere monopolium in tam excellenti sciencia," Cartulaire, No.1.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

40. "...ob bonum publicum et commune proficuum et utilitatem mei et tocius Montispessulani...mando...quod omnes homines, quicumque sint vel undecumque sint, sine aliqua interpellacione regant scolas de fisica in Montepessulano, qui regere scolas de fisica voluerint, et plenam facultatem, licenciam et potestatem inde eis stabilitate dono et concedo perpetua," ibid.

41. "... Ut igitur impedimentis hujus studii prudenter occurramus,... de communi consensu et consilio venerabilium fratrum nostrorum Magalonensis, Agathensis, Lodovensis et Avenionensis episcoporum...necnon Universitatis medicorum, tam doctorum quam discipulorum, ...perpetua constitutione ordinamus...auctoritate legationis qua fungimur.

Nullus, qui antea non rexerit in Montepessulano, de cetero publice regat, nisi prius examinatus fuerit et approbatus ab episcopo Magalonensi et quibusdam regentium bona fide sibi adjunctis...," ibid., No.2.

42. "Nullus sit in Montepessulano nomine scolaris, nisi certi magistri sit addictus regimini," ibid.

43. "Si magister prosequatur suam vel suorum injuriam contra aliquem qui non fuerit scolaris, omnes magistri vel scolares, ad hoc commoniti, juvent illum consilio vel auxilio...

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Si magister habeat causam adversus discipulum suum super salario, vel super alia re, nullus alius magistrorum ipsum recipiat...

Nullus magistrorum scolarem alterius scienter alliciat vel sollicitet precibus, pretio, aut quocumque modo, ad hoc ut eum subtrahat magistro suo...," ibid.

44. "...statuimus, ut nullus de cetero praticari presumat, nisi prius examinatus fuerit a duobus magistris, quos venerabilis pater Magalonensis episcopus eliget de collegio magistrorum:et postquam fuerit examinatus, si constiterit ipsum esse sufficientem ad praticam exercendam, dentur sibi littere ipsius episcopi et doctorum qui eum examinaverunt... exceptis cirurgicis, quos huic examini nolumus subjacere...," ibid., No.4.

It may be pointed out that the surgeons were expressly exempted from the examination, whereas at Paris the prosecution of unlicensed practitioners was directed "particularly against 'certain manual operators'," according to Professor Pearl Kibre, "The Faculty of Medicine at Paris, Charlatanism, and Unlicensed Medical Practices in the Later Middle Ages," Bulletin of the History of Medicine, XXVII(1953),6.

45. "... Quia sepe, per impericiam medicorum, qui...vicio nimium accelerate artis assumunt sibi exercicium praticandi, et sic multociens, unde speratur vita, ejus

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

contrarium subinfertur... " Cartulaire, No.4.

46. "...ut illorum audaciam reprimamus, qui presumunt ibidem sine examinatione et licentia practicare, per quod non solum nomen et fama ejusdem Studii denigratur, sed et multa incumbunt mortis pericula et rerum dispendia inferuntur...," ibid., No.14.

47. "...prohibemus in perpetuum et districte omnibus utriusque sexus, Christianis et Judeis, ne quis in villa Montispessulani et tota ejus dominatione audeat in Facultate Medicine aliquod officium practicandi exercere, nisi prius ibi examinatus et licentiatus fuerit," ibid.

48. "Si quis vero huic nostre constitutioni...ausu temerario contradicere vel obviare presumpserit, auctoritate Dei Omnipotentis et nostra se noverit anathematis mucrone percelli et a Sancte matris Ecclesie gremio sequestratum," Cardinal Conrad (1220), ibid., No.2.

49. "Si quis autem [paginam infringere] attemptare presumpserit, indignacionem Omnipotentis Dei et Beatorum Petri et Pauli, apostolorum ejus, se noverit incursurum," Cardinal Guido (1239), ibid., No.4.

50. "Quod si forte aliqui presumpserint attemptare, tenenti locum nostrum...mandamus ut ad simplicem requisitionem Cancellarii ipsius Studii...in personis et bonis puniant taliter istiusmodi transgressores, quod, in pena

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

unius, aliorum temeritas a similibus arceatur," ibid., No.14.

51. In 1281, by James II of Aragon, ibid., No.16; in 1316, by Sancho of Majorca, who spelled out the fine, "videlicet quod pro qualibet vice solvant nostre curie duas marchas argenti, et nisi habuerint, luant in corpore," ibid., No.33; and, in 1365, by Louis of Anjou, lieutenant of Charles V in Languedoc: Louis raised the fine from two to ten silver marks, ibid., No.127.

52. "...mandamus [bajulis] ut ad simplicem requisitionem Cancellarii ipsius Studii...puniant...transgressores... Predictam itaque gratiam et concessionem, ad preces fidelis nostri magistri Bernardi Calcadelli, duximus concedendam...," ibid., No.14 (see also note 50 above).

In 1365, Louis of Anjou stated explicitly that the "humilis supplicacio dilecte filie nostre universitatis studentium in medicina" moved him to issue the decree: Cartulaire, No.127.

53. "...per quod non solum nomen et fama ejusdem Studii denigratur...," ibid., No.14 (see also note 46 above).

54. "...Jacobus, rex Aragonum, pater noster, pro ampliando et conservando medicinali studio in Montepessulano, suum concessit privilegium doctoribus et universitati studentium in arte medicine in villa Montispessulani...," James II of Aragon (1281), Cartulaire, No.16.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

55. For example, upon admission to the University, new members had to swear "quod non revelabunt secreta Universitatis," and "quod, si viderint periculum Universitati imminere, vel alicui vel aliquibus de universitate magistrorum, illud avertent...," ibid., No.5.

56. "Noverint universi quod magister Guillelmus Rotberti, vicecancellarius, et magister Hugo de Calatorio, magistri in medicina, nomine proprio et nomine procuratorio universitatis magistrorum medicine Montispessulani, constituti coram domino Johanne Boni Filii, officiali domini Magalonensis episcopi, proposuerunt quod Johannes de Chipro non examinatus secundum tenorem et formam privilegii, concessi seu dati universitati magistrorum medicine..., praticaverit... Item, proposuerunt quod, occasione dicti Johannis, ipsi et universitas magistrorum plures expensas fecerant et dampna sustinuerant, et petierunt a dicto officiali ...quod expensas et dampna...faceret eis reddi et restitui...," ibid., No.15.

57. In 1319, the Vice-Chancellor of the Medical Faculty, Stephanus Arlandi, sued Johannes de Lodova, bachelor of medicine, who "contra privilegia, Studio Montispessulani in medicina a Summis Pontificibus concessa...

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

in villa Montispessulani praticavit..., detrahendo magistris lucra, ponens falsem suam in messem alienam...," ibid., No.35 (italics mine).

58. "...dixerunt et protestati fuerunt quod...non intendebant tacite vel expresse renunciare, verbo vel facto, privilegiis concessis et indultis universitati...nec etiam aliis, utilitatem et comodum respicientibus predictorum magistrorum...," ibid.

59. "...dixerunt et protestati fuerunt eidem domino officiali hec verba...: 'Domine officialis, vos non potestis dare examinatores alicui volenti praticare sive operari ...et si inde a domino episcopo habetis mandatum, requirimus cum instancia ut de ipso mandato detis nobis transcriptum. Item, requirimus...ut privilegia et statuta nostra nobis et dicte universitati inviolabiliter observetis'...," ibid.

60. See J.Combes, "Quelques remarques sur les bourgeois de Montpellier au Moyen Âge," in Mélanges Pierre Tisset (Montpellier, 1970), pp.93-132.

61. The most recent study of the feudal lords of Montpellier is by Archibald Lewis, "The Guillems of Montpellier: A Sociological Appraisal," Viator, II(1971), 159-169.

62. Earlier, in fact, the French kings had a theoretical claim to suzerain authority over Montpellier on the basis of their Carolingian succession. An indication

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of this claim would be found in 1230, when Saint Louis allegedly 'granted' the bishop of Maguelone the power and jurisdiction to administer the oath to candidates for the license and the doctorate in the Faculty of Law: Cartulaire, No.3; however, see note 5 above.

63. Louis Teissier, "La cité de Montpellier au temps de Raymond Lulle," Revue des Pays d'Oc, II(1933), 390. But again before this final act, Philip IV in 1333 had assumed suzerain authority by 'confirming' the decrees of James I of Aragon and of Pope Clement V: Cartulaire, Nos.55 and 56; and he 'granted' his royal protection to the University: ibid., No.57.

64. Montpellier proper also fell, somewhat more vaguely, under the feudal jurisdiction of Maguelone since 1110, when Guillem V swore allegiance to Bishop Gautier. The oath was renewed in 1152, in 1161, and again in 1236. See Baumel, Seigneurie, pp.81, 150.

65. The close ties were, on the whole, with the Counts and the Guillems rather than with the burghers of Montpellier. The Guillems were hosts to Urban II (1096), Gelasius II(1118), and Calixtus II(1119). They supported Innocent II, who expressed his appreciation in letters (1130-1132) and by excommunicating

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the revolting consuls in 1141. Alexander III, fleeing from Frederick Barbarossa, excommunicated the anti-pope Victor IV at a national council in Montpellier in 1161; in the next eight years the same pope took the homines etiam et mercatores monte pessulani under his protection against the tolls imposed by diocese and county, and against Genoese piracy. Between 1199 and 1202, Innocent III was engaged in lively correspondence with Guillem VIII, in spite of the latter's repudiation of Eudoxia Comnena; in 1206 the same pope ordered an inquiry into the legitimacy of the troubled marriage between Peter of Aragon and Marie of Montpellier; after their death in 1213 he also entrusted their five-year old son James to the Templars for his education and appointed a regent for Montpellier. See Baumel, Seigneurie, passim.

66. Rashdall, Universities, II, 119. This episcopal authority, however, was explicitly "salva Sedis Apostolice in omnibus auctoritate" (Cartulaire, No.2), as becomes evident in the decision by papal delegates against the episcopal official who had conferred a license in medicine contrary to the advice of the professors in 1290: Cartulaire, No.21.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

67. "Sed in Facultate laudabili Medicine et peritiores in sinum matris Ecclesie agregare filios cupimus... vestris in hac parte justis desideriis benivolencie paterne favoribus annuentes..., de consilio et ad instanciam dilectorum filiorum magistrorum Guillermi de Brixia et Johannis de Alesto, phisicorum et capellanorum nostrorum, necnon et magistri Arnaldi de Villanova, phisici,...statuimus...," ibid., No.25.
68. "...et diligencius actendentes quod salus in multis consiliis reperitur habitaque super hiis cum dilectis filiis Arnaldo de Villanova et Johannis de Alesto, phisico et capellano nostro, qui olim diu rexerunt, et quibusdam aliis magistris, qui regunt ad presens in Studio prelibato, et nonnullis aliis, qui, ad magisterii statum in eodem loco promoti, diversis temporibus rexerunt ibidem, quamvis impresenciarum a dicto Studio sint absentes, plena deliberacione prehabita, et ab ipsis...informacione recepta,...statuimus...," ibid., Nos.26 and 27.
69. See Ernest Wickersheimer, Dictionnaire biographique des Médecins en France au Moyen-âge (Paris, 1936), I, 214. It is quite possible that Guy became the physician of Clement VI shortly after Petrarch (in 1343 or 1345) addressed to the latter a scathing

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

warning against certain physicians. Petrarch wrote, for example, "I know that your bed is besieged by physicians.... Holy Father, look on this mob as an enemy column.... Since we do not dare to live without physicians,...choose for yourself ... one who is conspicuous not for eloquence, but for his faith and knowledge...," Familiares, V.19. The entire letter, which is most interesting, was tr.by J.Wrigley, "A Papal Secret Known to Petrarch," Speculum, XXXIX (1964), 624-625.

Guy allegedly treated Petrarch's "amie" Laura de Noves: Pierre Huard and Mirko Grmek, Mille ans de chirurgie en Occident: Ve-XVe Siècles (Paris, 1966), p.43, where no specific reference is given. Other indications of Petrarch's acquaintance with Guy are found (also without specific references) in Alexandre Aimes, "Un illustre maître montpelliérain: Guy de Chauliac," Monspeliensis Hippocrates, V (1962), 9.

70. Cartulaire, Nos.34 and 39. The chancellor in question, Guillelmus de Bicterris (de Béziers), became the pope's chief physician the next year.

71. In 1323, Pope John appointed Bertrand Portal as chancellor of the University: ibid., No.40; in 1324 he appointed Jacques Gilles de Marseille on request of Robert of Sicily: ibid., No.42; in 1330 he gave the license to Pons de Lunel, born out of wedlock, who had been refused by the Montpellier Faculty despite his former dispensation: ibid., No.51; in the same

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

year Pope John also authorized the conferment of the degree before the required lecture, upon the request of the Count of Gelderland: ibid., No.52; in 1334, moreover, he authorized the degree without lecture for the physician of the king of Majorca: ibid., No. 60. With regard to another faculty, it may be pointed out that, already in 1268, Pope Clement IV had intervened directly in examining and licensing one Guillelmus Seguerii in Civil Law, and had ordered the Faculty of Law to admit him as a member: ibid., No.12.

72. We should, therefore, not misunderstand the statement of Denifle that in Montpellier "sich vollends der geistliche Character der Schule offenbart, während in Salerno im 13.Jahrhundert sich keine Spur mehr davon zeigt," Die Entstehung der Universitäten (Berlin, 1885), I,342. And Wickersheimer, "La question," p.4, ignores the evidence in saying that "lay elements started to penetrate" the University only in the fifteenth century, since in fact we find many a laicus mentioned for the fourteenth century in the Cartulaire, Nos.39 (1320), 68(1340), 107(1353), 120(1362), and so on.

73. In 1320, for example, the Chancellor, Guillermus de Bicterris (see note 70 above), was clericus conjugatus: Cartulaire, No.39.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

74. The constitution required only that those, who actually were clerics, would wear the tonsure or the habit: "Nullus magister vel scolaris...in scolis recipiatur, nisi deferat tonsuram clericalem, dum tamen ecclesiasticum beneficium fuerit assecutus, vel in sacris ordinibus constitutus; similiter nec aliquis regularis, nisi habitum defferat regularem, juxta ritum sue professionis," ibid., No.2.

75. The Itinerary of Benjamin of Tudela, tr.and ed.by A. Asher (London, 1840), I, 33-34.

76. This ordinance was renewed regularly until 1204: Thalamus Parvus, "Coûtumes," pp.6,14,20,50, and 68. See also Baumel, Seigneurie, p.212.

77. Baumel, Seigneurie, p.194.

78. Thalamus Parvus, pp.14 and 167, where such insults are considered as grievous as physical assault: "hec utique convicia percussionibus et concussionibus fere equantur."

79. "Que nul se mete en cure de Juifz, ny use de leurs conseils," cited by Delaruelle, "Théologie et Médecine," p.234, with reference to Marcel Fournier, Statuts et privilèges, I,884. However, the 1239 letter of Cardinal Guido in the Cartulaire (No.4) does not contain this clause. In any event, the prohibition was in accord

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

with the official decrees issued at several Church councils: at Trier (1227), Toulouse (1229), Béziers (1246), Albi (1254), Vienne (1267), Exeter (1287), and Avignon (1337). See Jacques Pinès, "Des médecins juifs au service de la Papauté du XIIe au XVIIe siècle," Revue d'Histoire de la Médecine Hébraïque, LXIX(1965), 124.

80. It may, however, be worth remembering that even in Alfonso el Sabio's Castile, so favorable to Jews, the Siete Partidas, Law VIII (ca.1275) "specified that Christians could not...have social dealings with Jews; nor could they...receive any medicine from them except by approval of an 'intelligent person, such as a Christian physician'," Albert Bagby, "The Jew in the Cántigas of Alfonso X, el Sabio," Speculum, XLVI (1971), 674. It is difficult to accept, nonetheless, Bagby's inference that therefore "the commoners were left to the care of amateurs," ibid., note 25.

81. Thalamus Parvus, "Chronique romane," pp.343-345. The so-called Crusades of the Shepherds (Pastoureaux) of 1251 and 1320 are discussed, with bibliographical references, by Norman Cohn, The Pursuit of the Millennium, revised and expanded edition (New York, 1970), pp.94-97, 103-104, and 342-343.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

82. See Paul Amargier, "Prêcheurs et mentalité universitaire dans la province de Provence au XIIIe siècle," in Universités du Languedoc, p.138.

83. See, especially for the activity around Profacius Jüdeus (ca.1236-ca.1304), chapter III below.

84. "Advertendum quod Iudei ut plurimum paciuntur fluxum emorroydarum propter tria: et quia communiter sunt in ocio et ideo aggregantur sibi fluiditates melancolie; secundo quia communiter sunt in timore et anxietate et ideo multiplicatur sanguis melancolicus iuxta illud Ypocratis...; tercio quod hoc est ex ulcione divina iuxta 'Et percussit eos in posteriora dorsi, opprobrium sempiternum dedit illis'," Lilium medicine, V.21, in MS British Museum Harley 3698, fol.77r. I have been unable to find the source of Bernard's quotation, which is probably either apocryphal or patristic.

85. "...et sicut vidimus in Iudeis cum suspenduntur per pedes, nichilominus tamen cibus attrahitur ad stomachum," ibid., V.2, fol.61r.

86. Pinès, "Des médecins juifs," p.126, where no specific reference is given. See also Joaquin Carreras y Artau, "Arnaldo de Vilanova, apologista antijudaico," Sefarad, VII (1947), 49-61.

87. La Grande Chirurgie, ed.E.Nicaise (Paris, 1890), p.171.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

88. As suggested in the Histoire Littéraire, IX (1763), 131.

89. D'Irsay saw in the Jewish immigration and scholarly activities "une des principales causes de l'établissement des études médicales," and claimed that the Jews soon "prirent part à l'enseignement et la communauté juive fournit beaucoup d'étudiants à la nouvelle université," Universités, I, 114.

90. See Cartulaire, Nos.2 (1220), 5 (1240), and so on.

91. "Ainsi le XIIIe siècle apparaît-il comme l'apogée de l'influence juive à la Faculté," Delmas and Guérin-Valmale, "L'hippocratisme," p.94.

92. Ibid.

93. Ibid.

94. See Moritz Steinschneider, Die hebräischen Übersetzungen des Mittelalters und die Juden als Dolmetscher (reprint, Graz, 1956), pp.607-614, 741-748, and passim. See also chapter III below

95. For example, Jakob ben Joseph Ha-Levi (fl.ca.1297-1306) translated the treatises De paralysi of Arnold de Villanova and De venenis of Gualterus Agulinus. Moyses ben Samuel (John of Avignon) translated Bernard de Gordon's Lilium medicine at Seville, 1359-69. Leo Joseph of Carcassonne translated Gerard de Solo's Introductorium iuvenum and, probably, Johannes de Tournemire's Clari-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ficatorium around 1400. See Steinschneider, Die hebräischen Übersetzungen, pp.780, 801, and passim. See also Georges Sarton, Introduction to the History of Science, III (Washington, 1929), 892, 873, 877, 248, and 1697, respectively.

96. In his testament in 1121 Guillem V forbade his heirs to choose a bailli among the Jews or Saracens, "ce qui permet de supposer que Montpellier devait abriter un nombre important de ces étrangers," Baumel, Seigneurie, p.106. The same possibility might be inferred from the fact that a provincial synod in Montpellier in 1195 prohibited Christians to serve as domestics with Jews or Saracens: ibid., p.194.

Also, "on a trouvé une nécropole arabe du XIe siècle," according to Paul Amargier in "Extrait des discussions," Universités du Languedoc, p.309.

97. "Intimement mêlés à la vie d'une cité où leur rôle était important, il n'est pas impossible que les savants de cette nation aient, pour une part, contribué au début de l'enseignement médical," Delmas and Guérin-Valmale, "L'hippocratisme," p.95.

98. Rashdall, Universities, II, 120.

99. E. De Lacy O'Leary, Arabic Thought and Its Place in History, rev. ed. (New York, 1939), p.290.

100. An extreme, almost "nationalist" form of this view

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

is found in J.Hariz, La part de la médecine arabe dans l'évolution de la médecine française (Paris, 1922), pp.59-81, where one detects some anti-Jewish bias: even the transmitting role of the Jews at Montpellier is played down to enhance the importance of direct Arabic influences.

101. "Die arabischen und jüdischen Ärzte verloren im Anfange des 13. Jahrhunderts ihren Einfluss auf die Schule...," Felix de Bra, "Kurzer Abriss der Geschichte der medizinischen Schule von Montpellier," Janus, X (1905), 352.

102. Donald Campbell, Arabian Medicine and Its Influence on the Middle Ages (London, 1926), I, 160.

103. "Tout le long du XIVe siècle et jusqu'à la fin du XVe, l'arabisme sera le maître à Montpellier...," Wickersheimer, "La question," p.7.

104. This interpretation is cited, with reservations, by Rashdall, Universities, II, 120. Rashdall himself, however, was more convinced that "Arabic medicine came late to Montpellier," ibid., p.121, note 3 by the editors.

105. The continuity is illustrated, for example, in Cassiodorus' Institutiones divinarum et humanarum lectionum, i.31: English tr.by Leslie W.Jones (New York, 1969),

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

p.136. Also in Isidore's Etymologiae, iv.13: English tr.by William D.Sharpe (Philadelphia, 1964), p.64. More specific information is found in Isidore's verses on his library shelves, in Patrologia Latina, LXXXIII (1834), 1110; see Karl Sudhoff, "Die Verse Isidors von Sevilla auf dem Schrank der medizinischen Werke seiner Bibliothek," Archiv für die Geschichte der Medizin, XXI (1929), 23-27.

See also Loren McKinney, "Medical Ethics and Etiquette in the Early Middle Ages: The Persistence of Hippocratic Ideals," Bulletin of the History of Medicine, XXVI (1952), 1-31. An entirely different aspect of the surviving tradition is illuminated by Robert Joly, "La traduction latine du livre II du Régime et l' unité de la tradition hippocratique," L'antiquité classique, XXXIII (1964), 45-57.

106. A pioneer in this field is Professor Pearl Kibre, who is presently completing an extensive survey of medieval Hippocratic commentaries; see her study, "Hippocratic Writings in the Middle Ages," Bulletin of the History of Medicine, XVIII (1945), 371-412.

Also see A.Beccaria, I codici di medicina del periodo presalernitano (Rome, 1956); Henry Sigerist, "The Latin Medical Literature of the Early Middle

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Ages," Journal of the History of Medicine and Allied Sciences, XIII (1958), 127-146; and G.Baader, "Zur Überlieferung der lateinischen medizinischen Literatur des frühen Mittelalters," Forschung, Praxis, Fortbildung, XVII (1966), 139-141.

107. See Henry Sigerist, "Early Mediaeval Medical Texts in Manuscripts of Montpellier," Bulletin of the History of Medicine, X (1941), 26-47; also Ernest Wickersheimer, Manuscrits latins de Médecine du haut moyen âge dans les bibliothèques de France (Paris, 1966), pp.41-49.

108. Baumel, Seigneurie, pp.24, 101-102.

109. See the studies mentioned in n.106 above. One author who, on the contrary, thought that monasteries played no role in the medical tradition, was Edward T. Withington, "Medicine in Mediaeval Monasteries," Medical Magazine, V (1896), 508-519.

110. D'Irsay, Universités, I, 102.

111. Baumel, Seigneurie, pp.198, 289.

112. See Wickersheimer, Dictionnaire, I, 78; also C.H. Talbot, "A Letter from Bartholomew of Salerno to King Louis [VI or VII] of France," Bulletin of the History of Medicine, XXX (1956), 325.

113. See Wickersheimer, Dictionnaire, I, 57-58.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

114. Aegidius Corboliensis, Carmina medica, ed. Louis Choulant (Leipzig, 1826), p.53.

Mattheus Solomon is probably identical with Mattheus Salernitanus, whose De pulsibus is listed in Lynn Thorndike and Pearl Kibre, A Catalogue of Incipits of Mediaeval Scientific Writings in Latin, revised and augmented edition (Cambridge, Mass., 1963), 268, 719, and 1151. This Catalogue is hereafter referred to as TK.

115. Gernot Rath, "Gilles de Corbeil as Critic of his Age," Bulletin of the History of Medicine, XXXVIII (1964), 133-138. See also chapter II, n.39 below.

116. This aspect was emphasized, for example, by Jean Turchini, "Salerne et Montpellier," Monspeliensis Hippocrates, XIV (1961), 3-7.

117. See especially P.Roussel, "Montpellier, rivale de Salerne," Galeno, XV (1967), 6-9.

118. Metalogicon, tr.McGarry, p.17. The Latin text is found in Patrologia Latina, CIC (1876), cc.830-831.

119. See Eugène Guitard, "Les attaques de Guiot de Provins contre les praticiens instruits à Montpellier au XIIe siècle," XVIe Congrès International d'histoire de la médecine, Résumé des communications (Montpellier, 1958), p.78.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

120. See C.H.Talbot, Medicine in Medieval England (London, 1967), p.49.

121. De naturis rerum, ii.174, cited by Lynn Thorndike, A History of Magic and Experimental Science (hereafter referred to as Magic), II (New York, 1958), 190.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CHAPTER TWO

THE ACADEMIC TRADITION OF MONTPELLIER IN THE UNIVERSITY CURRICULUM

> With the glorious renown of success the profession of medical knowledge shone forth in Montpellier, flourishing and producing a copious and vigorous abundance of fruits in diverse parts of the world (Statutes of the Faculty of Medicine of Montpellier).[1]

In a paraphrase on this metaphor, which Cardinal Conrad used in 1220, we may compare the Montpellier academic tradition to a tree. The rich soil in which it grew, and its intricate roots were the subjects of the first chapter. Now we are to outline the form which that tradition took in the university statutes. In the third chapter we shall examine the fruits it bore, in the works of Montpellier's masters. Such an examination has been undertaken to provide the illustrative evidence for our assumption that the Montpellier tradition was too dynamic and versatile to fit such neat labels as "Arabism" and "scholasticism."

One of the three faculties at Montpellier in the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

thirteenth and fourteenth centuries, that of Law, will not be discussed here both because it would be a diversion from the main thesis and because most of its documents, however instructive, relate to the period after 1339. On the other hand, attention will be given to the information, though meagre, pertaining to the Faculty of Arts, since the liberal arts were closely associated with medicine. Fortunately, the documentation regarding the Faculty of Medicine is plentiful, and may be utilized to supplement the frustratingly scant information, which the documents provide on the liberal arts.

The statutes, granted to the Faculty of Arts by Jean de Montlaur II, bishop of Maguelone, in 1242, mention only two of the liberal arts, namely grammar and logic (or dialectic).[2] But according to the editor of the Cartulary, Alexandre Germain, this pair comprised also the third art of the trivium, rhetoric, as well as the subjects which now fall under "philosophy and sciences."[3] However, neither the statutes nor the writings provide direct evidence of what was actually taught in the Faculty of Arts. The Cartulary itself does not give the titles of the works which the masters and students used. We may perhaps assume that the liberal arts curriculum of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Montpellier was less extensive than that of Paris in the first half of the thirteenth century.[4] This assumption finds support in a clause of the supplementary statutes of 1240, which provided that a Master of Arts from Paris or from "another famous place" could be presented for the Montpellier license in medicine after only two and a half years of medical instruction. That was one year less than the Medical Faculty normally required, perhaps even of Masters of Arts of Montpellier.[5] In 1242, furthermore, scholars at Montpellier who had taught the arts in Paris were exempted from the examination for the license in arts at Montpellier.[6]

In view of the fact that the Montpellier statutes explicitly referred to the teaching of the arts at Paris, it seems pertinent here to glance at the Paris curriculum. In 1215 Robert de Curzon, papal legate, prescribed the following works to be lectured on in the liberal arts courses : for grammar, Priscian's Institutiones grammaticae; for logic, Aristotle's so-called "old and new logic," that is the entire Organon; and for rhetoric, Donatus' Barbarismus together with the fourth book of Cicero's Topica. Aristotle's Ethics was assigned for philosophy, while his Metaphysics and his natural philosophy

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

were temporarily banned. Moreover, on feast days lectures might be given only on philosophy, rhetoric, and the subjects of the quadrivium.[7] The statutes did not name any specific works for the quadrivial or mathematical arts, namely arithmetic, geometry, music, and astronomy. From this omission it should not be inferred, however, that the quadrivial arts were not taught at the University of Paris. That, on the contrary, they did find a place in the arts curriculum, has been convincingly demonstrated by Professor Pearl Kibre on the basis of thirteenth-century writings, collections of Quodlibeta and Questiones disputatae, and student manuals.[8]

Such direct evidence is lacking, however, for the teaching of the quadrivium in the Montpellier Arts Faculty, since the only extant works by members of this Faculty seem to relate exclusively to the trivium.[9] It is understandable, therefore, that Alexandre Germain doubted whether any quadrivial arts were taught at Montpellier in 1269. He found further reason for skepticism in his interpretation of a letter of Pope Clement IV to the effect that "it was doubtful whether even arithmetic was taught" there.[10] But Germain appears to have misread

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Pope Clement's purely hypothetical assertion that arithmetic "was perhaps (forsitan) never lectured on" at Montpellier.[11] Therefore, neither this ambiguous reference nor the absence of direct and specific information constitute sufficient proof that the quadrivium was neglected in Montpellier's liberal arts curriculum. It is, on the other hand, unlikely that the masters would have been entirely unaware of the Greek mathematical tradition, handed down by Boethius, or of the Arabic and Jewish contributions to mathematics. We may emphasize, in this regard, the intense activity that went on at Montpellier in the second half of the thirteenth century, when Jewish scholars, such as Moses ibn Tibbon and Profacius Judeus, and Christian masters, such as Armengaudus Blasius and Bernardus de Trilia, translated and composed several works on arithmetic and algebra, on geometry, and on astronomy.[12]

Since most of the non-Jewish scholars directed their efforts towards astronomy, and were masters of medicine in Montpellier, one might argue that their activities do not necessarily demonstrate the teaching of the quadrivium in the Faculty of Arts, but rather the interest of the physicians in astronomy. Furthermore, as

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the survey of their writings will indicate, the physicians' concern was primarily with practical or applied astronomy, in other words with astrology, that is the study of the influence of the stars upon man's health. It would seem, nonetheless, that even the pursuit of astrology presupposed a working knowledge of mathematical astronomy and of arithmetic, and that the physicians, associated with Montpellier, had acquired such a knowledge during their basic training in the liberal arts.

The knowledge of the arts, both of the trivium and of the quadrivium, was traditionally considered to be a prerequisite for medical studies. Thus, Isidore of Seville (ca. 560-636) in his influential encyclopedia, the Etymologiae or Origines, had asserted that

> the physician ought to know literature, grammatica, to be able to understand or to explain what he reads. Likewise also rhetoric, that he may delineate in true arguments the things which he discusses; dialectic also so that he may study the causes and cures of infirmities in the light of reason.

With regard to the quadrivium, on the other hand, Isidore declared that the physician also ought to know

> arithmetic, in view of the temporal relationships involved in the paroxysms of diseases and in diurnal cycles. It is no different with respect to geometry because of the properties of regions and the locations of places. He should teach what must be observed in them by everyone. Moreover, music ought not to be unknown by him,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

> for many things are said to have been accomplished for ill men through the use of this art. Finally also, he ought to know astronomy, by which he should study the motions of the stars and the changes of the seasons, for as a certain physician said, our bodies are also changed with their courses. [13]

Another work that, like Isidore's encyclopedia, played an important role in medieval education, was a textbook of medical theory, the al-Kitab al-Malaki or Liber regius of Haly Abbas (d. 994). In the rather free translation by Constantinus Africanus (ca. 1015-1087), the Pantegni, we read that "anyone who wishes to excel in the art of medicine, should have a knowledge of dialectic and of the entire quadrivium."[14]

The evidence from traditional and thirteenth-century sources suggests that the liberal arts were not neglected in the training of the physician. It does not answer, however, the question whether physicians at Montpellier acquired their proficiency in the trivium and in the quadrivium as students in the Arts Faculty or in the Faculty of Medicine. This brings us to the complex problem of the relations between the liberal arts and medicine at the University of Montpellier. Stephen d'Irsay, the most recent writer on this subject, held that in the period between 1180 and 1240 medicine

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

became "separated from the liberal arts," and that "its methodological definition, its place in the hierarchy of the sciences appear clearly and for the first time at Montpellier."[15] This sweeping claim is not borne out by the documents. The statutes of 1220 offered only a vague hint at medicine's standing as a science, when Cardinal Conrad referred to the biblical author of Ecclesiasticus, who "persuades us to respect this science, because the Most High created medicine."[16]

More specific than the reference by Cardinal Conrad was the declaration of his successor, Cardinal Guido. The latter in 1239 asserted that "medical science is known to shine forth among the liberal arts as a major beacon in the firmament of the sciences."[17] Still, Cardinal Guido did not here separate medicine from the arts, he rather placed it among (inter) them. One can, therefore, hardly see this as a new "methodological definition." To a certain extent, however, Cardinal Guido's classification seems to mark a significant deviation from the views that prevailed in the Latin tradition. In the early fifth century, for example, Macrobius had disdained medicine as "the very lowest dregs of physica,"[18] while Martianus Capella had "with disgust" thrown it

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

out of the arts altogether.[19] Two centuries later, on the other hand, Isidore of Seville asserted that "the art of medicine is not included among the other liberal disciplines," because these relate to individual subjects,whereas medicine embraces all their subjects.[20] Hence, Isidore explained further in his Etymologiae, the physician must be versed in all the liberal arts, and "medicine is called a second philosophy, for each discipline claims the whole of man for itself. Just as by philosophy the soul, so also by medicine the body is cured."[21] Moreover, in the century preceding that of Cardinal Guido, Hugh of Saint Victor in his Didascalicon had held that medicine belonged among the seven sciences which comprised "mechanical philosophy";[22] whereas the unknown author of the De exilio anime had listed medicine as one of the arts which lead man from his exile of ignorance to his homeland.[23] Cardinal Guido's solemn introduction, although in general agreement with the appreciation of medicine expressed in the above mentioned writings, was nevertheless different in two essential respects. First, Cardinal Guido explicitly placed medicine among the liberal arts; and secondly, he assigned medicine a particularly prominent rank.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

In addition to the statement of Cardinal Guido, the Cartulary contains further evidence that, contrary to the view of d'Irsay, medicine had not yet become clearly separated from the liberal arts at Montpellier by 1239. Almost a century later, the relation between both disciplines was apparently still ill-defined. In 1330, Pope John XXII issued an indult granting Poncius de Lunello the license to lecture on, to teach, and to practice medicine in Montpellier, in spite of his illegitimate birth. The Pope regretted that the Montpellier masters had denied Poncius the magisterium even though he had "made such great progress in the elementary and medical sciences,"[24] While the reference may be somewhat ambiguous, from the context it would seem that by "primitivis scienciis" were understood the liberal arts or their equivalents, and that proficiency in these arts was to be evaluated for the magisterium in medicine. Some Montpellier physicians may, in fact, have been so much enthralled by the preparatory stage of their education that they were tempted to concentrate on the liberal arts. Hence, so that they would not yield to this temptation or dabble in the arts at the expense of their medical instruction, the members of the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

University of Medicine in the 1340 statutes forbade their masters to lecture in the medical schools on any text of grammar, logic, or natural science, except Aristotle's De animalibus.[25] The bachelors, moreover, might not receive a Master of Arts degree once they had made their public inception in medicine, so that they would not stray back to pursue a career in the arts rather than in medicine.[26] From these statutory provisions it appears that the members of the Medical Faculty were consciously attempting to separate the study of medicine from that of liberal arts. That was in 1340, however, a century after Cardinal Guido had described both disciplines as organically one.

The second noteworthy aspect of Cardinal Guido's statement in 1239 was his designation of medicine as a "major beacon" among the sciences.[27] The encouragement of medicine as a science, rather than as a practical art, has been seen by some as the result of Montpellier's "closer relations with Arabic medicine."[28] A careful look at the texts, however, reveals the possibility that the difference between 1220 and 1239 may reflect not only the entrance of Arabic influences through Spain, but also an advance of Salernitan influence, from

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

pre-Constantinian to Constantinian.[29] In 1220 Cardinal Conrad stated that the practice of medicine, "in intimate harmony with the nature of things (rerum familiare naturis), makes its practitioners more judicious."[30] The phrase "rerum familiare naturis" seems a striking echo of the Salernitans before Constantinus Africanus (ca. 1015-1087). At the end of the tenth century the historian Richer of Rheims had observed that the Salernitan physicians practiced on the basis of their familiarity with the "spirit of nature" (ex ingenio naturae), rather than on the basis of book-learning.[31] It may be worth noting further that it was this familiarity with nature, a fundamental element of the Hippocratic tradition, that had earned for Salerno the title of civitas Hippocratica.[32]

Whereas the terminology, used by Cardinal Conrad in 1220, seemed to reflect pre-Constantinian ideas, the phraseology of 1239, on the other hand, apparently drew upon the Salernitan heritage as affected by the work of Constantinus Africanus. For example, when Cardinal Guido gave medicine a place in the firmament of the sciences, he may have been inspired by Constantinus' claim, in his translation of the Pantegni, that

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

medicine "is superior to the other arts."[33] Moreover, Cardinal Guido expressed alarm at the inexperienced physicians who, "ignorant of the causes of cures," rushed too precipitously into practice.[34] While that alarm was probably influenced by the Hippocratic tradition, which emphasized the necessity of knowing the right causes,[35] it may have been reinforced by Constantinus' admonition to study the causes of diseases and to learn from books, lest one enter practice blindly.[36] The idea of blindness was further elaborated in 1260, when the Montpellier masters cautioned against those students who became like "the blind leading the blind" by presumptuously taking up the practice or teaching of medicine after they themselves had skipped the "knotty problems" of medical science.[37] The masters seemed to hark back to Gilles de Corbeil (ca. 1140-1224), a zealous propagator of Salernitan learning, who had warned against the "unbaked" medical tyro who had merely learned to "untie a few knots of physica."[38]

It is possible, however, that Gilles de Corbeil himself had, around 1200, indicated a growing divergence between the orientations of Salerno and Montpellier when, after a brief sojourn in the latter city, he angrily

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

turned his back on the "Mons Pessulanicus errans."[39] According to Stephen d'Irsay, the Salernitan and Montpellier medical traditions can be differentiated on the basis of the sources which were available to each school. D'Irsay and others believed that Salerno, where the evolution of medical doctrine came to an end before 1200, had access only to the "paléo-arabes", in addition to the Greco-Roman and Byzantine sources. By "paléo-arabes" d'Irsay meant the ninth- and tenth-century Arabic works, namely those by Johannitius or Hunain ibn Ishaq (fl.ca. 850), Isaac Judeus (fl. 920), Haly Abbas (d. 994), and Ibn al Jezzar (d. 1004), which had been translated by Constantinus Africanus.[40] Salerno's heir, Montpellier, on the other hand, acquired also the "néo-arabes," such as Albucasis (fl. 1000), Avicenna (980-1037), Avenzoar (d. 1162), Averroes (1162-1198), in addition to the earlier Albumasar (d. 886) and Rasis (850-932).[41] The works of these "néo-arabes" had become available primarily through Spain, in the translations by Gundissalinus (fl.ca. 1130), John of Seville (fl. 1140) and, especially, Gerard of Cremona (d. 1187).[42]

According to d'Irsay the "early Arabs" were more empirical and more "naive" in their direct concern with

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

practice, whereas the "new Arabs" introduced a medical teaching that was "highly speculative, laden with logical and metaphysical analyses," and that became known as "medical scholasticism."[43] It would seem, however, that this distinction is too sharply drawn and needs to be qualified. Thus, it would probably be more accurate to describe the new type of analysis as "philosophical" rather than "metaphysical," in view of the attention it gave to questions of natural philosophy. Furthermore, the "speculative" orientation in medicine had originated with Galen rather than with the Arabs, whose apparent strength lay primarily in the logical organization of the subject matter. It is, in this regard, interesting to note that one "early Arab," Haly Abbas, allegedly surpassed the work of Rasis in his arrangement of the material.[44] Also the early Arabs themselves had displayed an active interest in the theoretical foundations of medical practice.[45] The Pantegni of Haly Abbas, for example, in the translation of Constantinus, opens with a detailed classification and definition of the divisions of medical teaching. The basic division is that between medicina theorica and medicina practica. Theorica is defined as "the complete knowledge of things that are to be grasped only by the intellect, subject to the memory

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of the things to be treated"; that knowledge pertains to things as they relate to nature.[46] Practica, on the other hand, is that branch of learning which "demonstrates the subjects of theory for the grasp of the senses and for manual operation, in accordance with the understanding gained in preceding theory"; it contains the "knowledge (scientiam) of preserving the healthy and healing the sick, with diet, potions, and surgery."[47] Parallel definitions are found in the first chapter of the Canon of Avicenna, the leading representative of the "new Arabs." For Avicenna, the theory of medicine is "that which, when mastered, gives us a certain kind of knowledge, apart from any question of treatment"; practice, on the other hand, "is not the work which the physician carries out, but is that branch of medical knowledge which, when acquired, enables one to form an opinion upon which to base the proper plan of treatment."[48] From the above examples it may be seen that the emphasis on intellectual knowledge and the logical sophistication, found in the Pantegni, seemed to match those of the Canon, even though in general Haly Abbas' further treatment of the subject matter could be considered more simple and more straightforward than that of the "subtly ingenious (feinausgeklügelte)"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Avicenna.[49] Hence, the distinction between "early" and "new Arabs" seems to be a question of degree rather than substance.

Special attention has been devoted to the distinction between old and new Arabs because it entails the danger of misunderstanding the Montpellier tradition. An undue emphasis on that distinction, together with a one-sided interpretation of the term "scholastic medicine," have led some to believe that there was, at Montpellier in the thirteenth and fourteenth centuries, a drastic shift from the concern with practical experience to an obsession with theoretical discourse.[50] This view, too, seems to be belied by the documentary evidence. Although there was an increased reliance upon book-learning and a growing interest in philosophical questions, even with regard to the medicina practica, actual practice remained an essential part of medical education at Montpellier. A clause in the statutes of 1220, for example, reveals the fact that students apparently interrupted their classwork for a period of practice outside Montpellier.[51] Moreover, according to the statutes of 1240 no candidate was to be presented by a master for the license "unless he had been in practice

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

outside the city of Montpellier for a half year."[52] In 1309, furthermore, the required term of practice outside Montpellier was increased to eight months or two summers.[53]

In addition to the prescribed term of practice outside the city, some "in-service" training in Montpellier may have been customary to give the student, as a master's assistant, practical experience.[54] This is suggested in an anecdote, which Bernard de Gordon related in 1303, about a leprous countess in his care, whom "a certain bachelor in medicine was attending (ministrabat)."[55] The fact that neither the theoretical study nor even the teaching of medicine were in themselves sufficient qualifications for the license to practice, is further indicated in the diploma granted to master Guillermus Rotberti in 1260. Although Guillermus had not only "from his tender years dedicated himself to the study of medicine" but also "long and sedulously busied himself with the duty of lecturing," he had been "carefully examined" as to whether he was duly "instructed in practical experience (instructus in experiencia practicandi)."[56] As clinching evidence of the continued emphasis on experience may be cited the Montpellier statute

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of 1340 whereby the Chancellor of the University was put "under sworn obligation" to provide for a dissection at least every other year, "because experience is called the best teacher."[57]

While the members of the Faculty of Medicine insisted that practical experience was essential in the physician's training, they also remained aware that, conversely, the physician's practicing competence was the primary goal of medical education. Thus, in 1260, when they pleaded for thoroughness in academic studies, they were concerned not only with the "confusion of the masters, the falsification of the medical art, and the disruption of studies," but also with the "danger to many," caused by those who presumptuously rushed into practice.[58] Furthermore, in addition to academic regulations, the statutes also contained specific provisions for the actual practice by the University members. In 1240, for example, the masters were instructed to promise under oath that they would call a priest for the critically ill, that they would not treat a leper in Montpellier for more than eight days, and so on.[59] These practical provisions were reiterated a century later, when stipulations were added to regulate the inspection of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

apothecaries and to maintain the chairs of those masters who were "absent while serving the Pope or the cardinals" at the Curia.[60]

From the foregoing instances one may conclude that, together with their academic lectures, medical practice remained an integral part of the career of the university professors. This fact becomes even more evident in the statement made by Gaucelmus Malzeni, official of the bishop of Maguelone, when in 1310 he enjoined envious members of the University from preventing master Petrus Calberte from "practising, teaching, and exercising the other functions belonging to the said science" of medicine.[61] Moreover, the emphasis on practice is also in evidence in the statutes of 1340. Under their provisions a master, who had been indisposed or ill, was considered to have recovered sufficiently and to be fit to resume teaching when he "was able to visit his patients without discomfort."[62] And a master who had accepted illegal fees was to be "suspended automatically from every magistral honor and privilege, except practice."[63]

The continued emphasis on medical practice at Montpellier in the thirteenth and fourteenth centuries

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

seems to challenge the view that an increasingly one-sided interest in abstract speculation followed the influx of neo-Arabic influences. A better knowledge of what was actually taught at the Medical Faculty, on the other hand, may help us further in testing the claims that Montpellier was an "Arabist centre"[64] or, more specifically, that "the Arabic influence became predominant" in the fourteenth century.[65] There are, fortunately, two special keys available to unlock further the puzzle of Montpellier's medical teaching. These are the two lists, comprising the texts which were to be adopted by the Faculty of Medicine. One, a book list for the students, is contained in a bull issued by Pope Clement V in 1309; the other, an actual curriculum to be followed by the professors, constitutes articles XX and XXI of the statutes of 1340.[66]

In 1309, at the request of the members of the University of Montpellier, and with the advice of three former masters of medicine, Pope Clement V issued provisions to guarantee "the competence and the adequate skill of the bachelors."[67] He decreed that all bachelors of medicine must possess (habere), at the time of their promotion to the status of masters, the following books: the "medical

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

commentaries" as well as the texts of Galen's De complexionibus, De malicia complexionis diverse, De simplici medicina, De morbo et accidenti, De crisi et criticis diebus, and De ingenio sanitatis. In addition, they must have either the works of Avicenna or the writings of Rasis, Isaac, and Constantinus.[68] Three books, moreover, were to be "read", two with and one without commentary, namely, in the following order of preference, Galen's Tegni and Hippocrates' De pronosticis or his Aphorismi, together with his Regimen acutorum morborum[69] and Johannitius' Isagoge in artem parvam Galieni, or Isaac's De febribus, or the Antidotarium (probably that by Nicholaus Salernitanus), or Galen's De morbo et accidenti and De ingenio sanitatis.[70] The candidates for promotion were required, furthermore, to answer at least once the questions posed by a professor of the Faculty.[71] They were, finally, to have given two lectures, one on theorica and the other on practica, to the assembled Faculty.[72]

While the above regulations had been issued by the pope, the statutes of 1340, on the other hand, were drawn up by Thomas de Santurnanicis, doctor of Laws, together with other canonists, who had been "authorized by the entire community of masters, bachelors, and scholars of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the medical Studium of Montpellier."[73] These statutes prescribed the courses to be adopted by the masters who desired to lecture ordinarie, that is, to conduct regular morning classes[74] from the feast of Saint Luke (18 October) or from All Saints' Day (1 November) until, at least, Easter.[75] Each master should select one of the ten courses listed; the first choice was to be given to the oldest master, the second to the youngest, and so on alternatingly until the "middle-aged."[76] The courses, which were listed in an order that may reflect a preference to be encouraged, were the following:[77] 1. the entire first book of Avicenna's Canon; 2. Galen's De morbo et accidenti and De differentiis febrium; 3. Galen's De crisi et criticis diebus and De malicia complexionis diverse; 4. Galen's De simplicibus medicinis and De complexionibus; 5. Hippocrates' Aphorismi, together with either his De regimine acutorum or his De pronosticis; 6. Galen's De iuvamentis membrorum and De interioribus; 7. Galen's De ingenio and Ad Glauconem; 8. the first two fen of the fourth book of Avicenna's Canon, together with Johannitius' Isagoge or Theophilus' De pulsibus et urinis[78]; 9. Galen's Tegni together with Hippocrates' De pronosticis and De regimine acutorum; and, 10. Galen's Regimen sanitatis

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and De virtutibus naturalibus.[79] If, however, there should be more than ten masters who wished to lecture ordinarie, they could choose among the following texts: Isaac's De febribus and De dietis universalibus; or the third or fourth fen of Avicenna's fourth Canon; or the two other fen of the same book; or the third book of the Canon;[80] or, finally, the other works of Galen, which probably means those not previously mentioned.[81]

Before attempting any interpretation or comparison of these two lists, several observations are in order. First of all, one must realize that these lists imposed only an absolute minimum of works to be completed. They cannot be used, therefore, as the exact index or measure of everything that was actually taught at the medical University of Montpellier. On the contrary, there is impressive evidence testifying to the wider scope of teaching during this period;[82] such evidence is provided in the writings of Montpellier's masters and, more specifically, in the works of Bernard de Gordon, which will be surveyed later. Moreover, information on additional academic activities is also to be found in the statutes themselves. In 1309, for instance, the pope drew up the reading list with the advice of Arnold

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

de Villanova, whose own works ranged far beyond the titles prescribed, although he wrote commentaries on at least four of them.[83] It is, incidentally, difficult to determine whether the medicinales commentati[84] of that reading list referred merely to all medical commentaries or specifically to the Constantinian ars medicine with its Galenic commentaries.[85]

In the 1340 statutes, on the other hand, even more convincing evidence is given revealing the fact that much more was taught at Montpellier than the subjects listed in the curriculum. It should be emphasized, for example, that the list of courses to be selected applied only to "ordinary" lectures.[86] Presumably, then, other topics could be selected for the extraordinary or cursory lectures.[87] The cursory lectures were to be given by the bachelors during vacations, except on feast days.[88] Moreover, various topics might be chosen for the disputation of masters and bachelors during the vigils and "Hippocratic days."[89] The statutes contain, furthermore, some indirect clues to subjects that, although not listed among the ordinary courses, were apparently taught. Thus, from the fact that Aristotle's De animalibus was exempted from the ban on the teaching of natural science

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

in the medical schools, we may perhaps infer that this book was utilized in cursory lectures.[90] Also, when the statutes directed the Chancellor of the University to see to it that one anatomia corporalis was held "at least every two years,"[91] it is possible that dissections were performed more frequently than this strict minimum prescribed, although they may not have been popular and corpses appear to have been hard to come by.[92] It is even possible, though neither explicitly documented in the statutes nor clear from other sources, that surgery was taught within the Faculty of Medicine.[93] In any event, it may be noted further that the 1340 statutes appear to have aimed at continued freshness of approach and versatility in teaching. They provided, namely, that a master, after having taught one of the prescribed courses, could not choose to lecture on the same subject or books for five years.[94]

It is important to observe a proper perspective not only with regard to the relation between the prescribed curriculum and actual teaching, but also with regard to the comparison of the two lists described above. For example, the differences between the book list of 1309 and the curriculum of 1340 cannot

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

be interpreted simply in terms of chronology. Allowances should be made, of course, for the natural tendency of legislators to add, rather than to simplify, stipulations. Some of the differences may, also, be attributed to the particular circumstances in which each of the lists was incorporated into the documents. It has already become obvious that the list of 1309 was intended for the students, that of 1340 for the masters. The former, moreover, was drawn up in Avignon in consultation with Arnold de Villanova together with two papal physicians and chaplains, namely Guillermus de Brixia and Johannes de Alesto.[95] The curriculum of 1340, on the other hand, was part of the statutes that were formulated at Montpellier by canon lawyers, carrying out the mandate of all the masters, bachelors, and scholars of the University of Medicine.[96] With these observations in mind, we may now juxtapose the two lists, together with the canon of the ars medicine and the number of commentaries, produced at Montpellier in the thirteenth and fourteenth centuries, and perhaps draw some conclusions from the comparative survey.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	Ars medica	Mentioned in 1309	Mentioned in 1340	Montpellier commentaries
"Medicinales conmentatos"	x	1	0	=?
Hippocrates				
Pronostici	x	1	2	3
Aphorismi	x	1	1	7
Regimen acutorum	x	1	2	4
Galen				
De complexionibus	x	1	1	0
De malicia complexionis diverse	0	1	1	2
De simplici medicina	0	1	1	0
De morbo et accidenti	?	2	1	1
De crisi et criticis diebus	?	1	1	1
De ingenio sanitatis	0	2	1	1
Tegni	x	1	1	3
De differentiis febrium	?	0	1	1
De regimine sanitatis	?	0	1	1
De virtutibus naturalibus	?	0	1	0
De iuvamentis membrorum	0	0	1	0
De interioribus	?	0	1	1
Ad Glauconem (or *De medendi methodo*)	?	0	1	0
"*de aliis libris Galieni*"	?	0	1	0
Philaretus				
De pulsibus	x	0	0	2
Theophilus				
De pulsibus et urinis	x	0	1	1
Johannicius				
Isagoge in artem parvam Galieni	x	1	1	4
Isaac (general)	x	1	0	1
De febribus	x	1	1	0
De dietis universalibus	?	0	1	0
Constantinus (general)	=	1	0	1
(Nicholaus)				
Antidotarium	x	1	0	2
Rasis (general)	0	1	0	2
Avicenna (general)	0	1	0	2
Canon I totus	0		1	1
III	0		1	0
IV, *fen* 1-4	0		3	4

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

On first glance, it would seem from the above table that the 1309 list was the more faithful to the Salernitan tradition, since most of its works are also found in the Constantinian ars medica.[97] In 1340, on the contrary, Constantinus and the Antidotarium have disappeared. At the same time, however, the 1340 curriculum retained Johannitius and added Theophilus' De pulsibus et urinis, as well as Isaac's De dietis. Since these works were presumably part of the ars medica, we cannot infer much more than the conclusion that the Salernitan academic canon appeared to maintain its influence. More important, however, is the meaning of this synopsis with regard to the assertion of growing Arabism at Montpellier. One might see an advance of Avicenna's sway in the fact that, while in 1309 no specific work of Avicenna was mentioned and the combined writings of Rasis, Isaac, and Constantinus could be substituted for his works, in 1340 Avicenna's Canon yielded material for one third of the prescribed courses. It should be recognized, on the other hand, that Arabic works represent less than one third of all the titles listed in both documents. Moreover, famous "new Arabs" such as Albucasis, Avenzoar, and Averroes were entirely

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

absent. Rasis, whose name occurred in the 1309 list, was not mentioned again in 1340. This may be surprising in view of the growing popularity of his Ad Almansorem.[98] In any event, these omissions do not offer support for the belief that Montpellier played a leading role in the Arabization of medicine.

The most striking feature, discernible in the synoptic table, is the prominent place which the Hippocratic-Galenic tradition received at Montpellier. For both dates the three most important Hippocratic works are listed; and in 1340 these comprised the subject matter of two of the courses to be taught. In both lists, however, there is a marked emphasis on Galen. Thus, in 1309, the students were required only to "read" two Hippocratic treatises, but they had to possess six individual Galenic works.[99] Furthermore, the predominance of Galen appears to have increased since in 1340 seven out of the fifteen courses had Galenic works as their subject matter, and six additional works were listed that did not appear in 1309.[100] The explanation for this addition cannot be sought in the intervening activity of Niccolo da Reggio (ca. 1308-1345), since Niccolo apparently did not translate any of those six

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

works.[101] In fine, the fact that out of a total of forty-eight individual listings, thirty-one are works of Hippocrates and Galen, is of paramount significance for our appreciation of the Montpellier academic tradition.

That tradition, as illuminated thus far in the background and genesis of the schools, and in the curriculum of the University, is characterized above all by continued vitality and diversity. During the period examined, the teaching of medicine was not yet clearly separated from that of the liberal arts. We have also seen how the development of academic medicine and the accompanying advance of booklearning and scholastic organization did not preclude a vital interest in medical experience and practice. Documentary evidence, moreover, has demonstrated that a solid Hippocratic-Galenic foundation and a lasting Salernitan inspiration counterbalanced the influx of Arabic influences. These characteristics may now be illuminated further in a survey of masters and writings, associated with Montpellier in the thirteenth and fourteenth centuries.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NOTES TO CHAPTER TWO

1. "Sane cum dudum medicinalis scientie professio sub gloriosis profectuum titulis in Montepessulano, floruerit et fructuum fecerit ubertatem multipliciter in diversis mundi partibus salubrem," Cartulaire, No.2.
2. "Johannes, episcopus Magalonensis, magistris et scolaribus in grammatica et logica apud Montempessulanum vel Montempessulanetum studentibus," and "ut nullus de cetero in villa ... in grammaticis vel dyalecticis regat," ibid., No.6.
3. "Cette division de l'enseignement en Grammaire et en Logique, ici formulée par Jean de Montlaur, représente, quant au premier groupe, ce que nous comprenons aujourd'hui sous le nom de classes de grammaire, d'humanités et de rhétorique, --et pour le second groupe ce que nous appelons classes de philosophie et de sciences," Germain, ed., Cartulaire, Introduction, p. 27.
4. See also chapter I above, p.6 and n.28.
5. "Item, nullus magister presentet aliquem, nisi ille audierit medicinam in Montepessulano vel in alio loco famoso ad minus per tres annos et dimidium, nisi idem fuerit magister in artibus Parisius vel in alio loco famoso; et talis possit post duos annos et dimidium

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

presentari," Cartulaire, No.5. See also ibid., No.68, for 1340.

6. "Si quis tamen rexerit Parisius in artibus, non examinetur; nec tamen regat in Montepessulano nisi ab episcopo Magalonensi, vel aliquo gerente vices suas, regendi licentia sibi detur," ibid., No.6.
7. Chartularium Universitatis Parisiensis, ed. by Heinrich Denifle (Paris, 1889), I, No.20.
8. Pearl Kibre, "The Quadrivium in the Thirteenth-Century Universities (With Special Reference to Paris)," in Arts Liberaux et Philosophie au Moyen Age (Montreal, 1969), pp. 175-191.
9. For those works see chapter III below.
10. "De quelles sciences pouvait-il s'agir, alors que nous lisons dans une lettre adressée en 1268 [sic] par le pape Clement IV au roi d'Aragon Jayme Ier, ... que l'arithmétique elle-même était douteusement enseignée dans nos Ecoles?" Germain, Cartulaire, Introduction, p. 27.
11. The statement was made in the course of Pope Clement's defense, against James I of Aragon, of the right of the bishop of Maguelone to give the license in Civil Law, even though the latter had never before laid claim to that prerogative; "sicut hodie servaretur si quis vellet legere Arithmeticam, quae nullo forsitan

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ibi tempore lecta fuit," Cartulaire, No.13.

12. See chapter III below.

13. Etymologiae, i.13, tr. by William D. Sharpe, The Medical Writings of Saint Isidorus (Philadelphia, 1964), p. 64.

14. "Oportet tamen qui in hac arte primatum vult optinere dialectice et tocius quadrivii noticiam habere," Constantinus Africanus, Pantegni, I.1, ed. by Marco T. Malato and Umberto de Martini (Rome, 1961), p. 42.

15. "La médecine, pendant ces quelques annees, se sépare définitivement des arts libéraux, auxquels elle se trouvait réunie autrefois; sa définition méthodologique, sa place dans la hiérarchie des sciences apparaissent clairement, et pour la première fois, à Montpellier," d'Irsay, Universites, I, 118.

16. "Nimirum hanc scientiam sapientis sententia persuadet venerari, testans quia Altissimus creavit de terra medicinam et vir prudens non abhorrebit illam," Cartulaire, No.2. The quotation is taken from Ecclesiasticus, xxxviii.4.

17. "Quia in firmamento scienciarum inter liberales artes medicinalis sciencia tanquam luminare majus noscitur prenitere," Cartulaire, No.4.

18. "Medicina autem physicae partis extrema faex est,"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Saturnalis, ed. and tr. by H. Bornecque and F. Richard, 2 vols. (Paris, 1937), vii.15.

19. "Sed quoniam [medicinae] mortalium rerum cura terrenorumque sollertia est nec cum aethere quicquam habeat superisque confine, non incongrue si fastidio respuuntur," De nuptiis philologiae et mercurii, ed. by F. Eyssenhardt (Leipzig, 1866), p. 333.

20. "Quaeritur a quibusdam, quare inter caeteras liberales disciplinas medicinae ars non continetur. Propterea, quia illae singulares continent causas, ista vero omnium...," Etymologiae, iv.13, in PL LXXXII, c.196. Here I have preferred a more literal translation than that by Sharpe (see n.13 above).

Intriguing, in this regard, are two anonymous items listed in TK. One, a commentary on Galen's Tegni, opens, "A quamplurimis dubitari solet an medicina sit ars liberalis...": TK 4. The other, which opens, "Queritur a quibusdam quare inter ceteras liberales disciplinas...," has the title Commendatio artis medicine: TK 1192.

21. "Hinc est quod medicina secunda philosophia dicitur. Utraque enim disciplina totum sibi hominem vindicat," Etymologiae, iv.13, in PL LXXXII, c.198.

22. Didascalicon, ii.2-27, in PL CLXXVI, cc. 745-760; or tr. Jerome Taylor (New York, 1961), pp. 62 and 74-75.

Professor Kibre is preparing a detailed study on

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the relation of arts and medicine.

23. De animae exsilio et patria, attributed to Honorius of Autun, in PL CLXXII, cc. 1241-6. This instance was brought to my attention by Professor Kibre.

24. "...lectionibus vigilanter insistens, sic in primitivis et medicinali scientiis profecisti, quod ad honorem magisterii...dignus fuisti communiter reputatus sed...per magistros scientie ejusdem medicine studii repulsus fuisti a magisterio prelibato... (Poncius then had gone to the Studium of Avignon, where he had been examined and approved by masters who, ironically, were all Montpellier alumni)...Nos tibi legendi, docendi, praticandi in dicta scientia medicine in dicto loco de Montepessulano et alia magistralia ibidem exercendi... concedimus facultatem...," Cartulaire, No.51.

25. "Item, statuimus quod nullus magister legat vel permictat legere in scolis medicinalibus aliquem librorum in cathedra gramaticalis vel logicalis vel naturalis sciencie, ullo modo, excepto libro 'De animalibus'," ibid., No.68, Art.xxxi.

26. "Item, statuimus quod, postquam aliquis Baccalarius promotus suum fecerit principium publice in ecclesia Sancti Firmini in Medicina recipiendo insignia magistratus, non possit in artibus publicam [lauream] nec

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

insignia magistratus recipere," ibid., Art.lxiv.

27. See n.17 above.

28. F.M. Powicke and E.B. Emden, eds., note, Rashdall, Universities, II, 122.

See also d'Irsay, Universités, I, 118-119: medicine's "caractère plus ou moins empirique était auparavant pour un saint Isidore, un Hugues de Saint-Victor, une cause de confusion; la place que ceux-ci lui ont assignée, elle la garde encore: la médecine est un 'art', un ensemble de connaissances pratiques. Elle le fut exclusivement, on s'en souvient, à Salerne. Mais dès 1200 environ, à Montpellier, cet 'art' organisé en faculté universitaire, disposant de textes d'une grande autorité comme le Canon d'Avicenne, prit le caractère d'une véritable science rationnelle."

29. Even this distinction, while convenient, is not fully accurate when one takes into account the role of Alfanus, archbishop of Salerno (1058-1085), friend of Montecassino, and mentor of Constantinus. See Brian Lawn, The Salernitan Questions (Oxford, 1963), pp. 17-19.

30. "... ipsius exercitium, rerum familiare naturis, discretiores suos reddit opifices," Cartulaire, No.2.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

31. Cited by Loren C. MacKinney, "Tenth Century Medicine as Seen in the Historia of Richer of Rheims," Bulletin of the History of Medicine, II (1934), 359.
32. See Karl Sudhoff, "Salerno, eine mittelalterliche Heil-und Lehrstelle am Tyrrhenischen Meere," Archiv für die Geschichte der Medizin, XXI (1929), 43-50.
33. "Aliis artibus hec est excellentior. Procul enim dubio ista omnibus est preferenda, quia cum subiectus sibi homo omnibus aliis artificialibus carere valeat," and "constat hanc artem omnibus esse necessariam et digniorem," Pantegni, I.3, ed. Malato and Martini, p. 42.
34. "Et quia sepe, per impericiam medicorum qui, curacionum causas ignorantes, vicio nimium accelerate artis assumunt sibi exercicium praticandi," Cartulaire, No.4.
35. See e.g., On Ancient Medicine on the "common herd of physicians" who are "ignorant of the true cause" and therefore "use faulty remedies," in Hippocrates, The Theory and Practice of Medicine, tr. Francis Adams, ed. Emerson Kelly (New York, 1964), p. 15.

While the Hippocratic tradition may have reached Montpellier through various other channels besides Salerno, a further indication of Salernitan influence

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

at this time may be found in the fact that the supplementary statutes of 1240 "were framed upon the regulations of Frederick II for Salerno," according to Theodor Puschmann, A History of Medical Education, tr. by Evan Hare (New York, 1966), p. 216.

36. "Infirma enim curare his [morborum causis] ignoratis est impossibile," Pantegni, I.1, ed. Malato and Martini, p. 40. "Est enim quasi cecus qui viam quam ingreditur ignorat; huius autem libri utilitas est permaxima," ibid., I.3, p. 42.

37. "Contigit aliquando quod nonnulli exinde cum ficella et cribro haurire aquas sciencie, ac clauso ore cibum refectionis sumere mussitantes, vix pusillum fragmentorum seu stillam aliquam reportarant et potum ac cibum ministrare aliis presumebant. Nam questionum nodis et laqueis ac altis sentenciarum gurgitibus pretermissis, per rivalem sensum littere superficialiter transeuntes, efferri super specula magisterii aut ad ignotum praticandi officium presumptive se ingerere satagebant. Unde frequenter iidem precipites tanquam ceci precipitabant alios simplices in practica et doctrina," Cartulaire, No.9.

38. "Medicum vitare decebit/ qui novus et medicae rudis est tirunculus artis,/ qui crudus de doctoris fornace

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

recedens,/ verborum lites sed nullos attulit actus:/ gutture qui tumidus dum ventos garrit inanes,/ assuetus quosdam physicae dissolvere nodos,/ Tactus avaritia, multum metuenda peritis,/ curandi morbos excelsa negotia curat," Gilles de Corbeil, De laudibus et virtutibus compositorum medicaminum, iii, vv.549-556, ed. Louis Choulant, Carmina medica (Leipzig, 1826), p. 123.

39. "Dyscolus et mordax, vehemens, clamosus, inanis,/ Quem sterili lolio pascit, farragine cruda/ Inflat et infatuat Mons Pessulanicus errans,/ Ne probris frontam laceret, formaeque nitorem/ Obfuscet maculis, vereor, clam basia figat;/ Lenoni populo faciem nec casta reveles,/ Fimbria monstretur, quam non est tangere dignus," De urinis, vv.346-352, cited by Ernest Wickersheimer, "La question du Judéo-Arabisme à Montpellier," Monspeliensis Hippocrates, VI (1959), 6. However, Gilles' anger may have been caused by the beating which he allegedly received at the hands of the Montpellier burghers. See Karl Sudhoff, "Salerno, Montpellier und Paris um 1200," Archiv für Geschichte der Medizin, XX (1928), 51-62. Also Stephen d'Irsay, "The Life and Works of Gilles de Corbeil," Annals of Medical History, VII (1925), 362-378.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

40. See Moritz Steinschneider, "Constantinus Africanus und seine Arabischen Quellen," Archiv für Pathologische Anatomie und Physiologie, XXXVII (1866), 351-410. Also Karl Sudhoff on "Früh-arabismus" in his "Genetische Zusammenhänge und regionale Bedingtheiten in der Medizin des 12. und 13. Jahrhunderts," Archiv für Geschichte der Medizin, XXI (1929), 66; see also his "Constantin, der erste Vermittler muslimischer Wissenschaft ins Abendland und die beiden Salernitaner Frühscholastiker Maurus und Urso als Exponenten dieser Vermittlung," Archeion, XIV (1932), 359-369.
41. D'Irsay did not mention Rasis, although his works were apparently not known to Constantinus. D'Irsay's omission may perhaps be explained by the fact that the presence of Rasis among the "néo-arabes" would upset his classification.
42. For these translations see Moritz Steinschneider, Die Europäischen Uebersetzungen aus dem Arabischen bis Mitte des 17. Jahrhundert (reprint, Graz, 1956).
43. "C'est une médecine très spéculative, très encombrée d'analyses logiques et métaphysiques; il lui manque la naïveté de la première époque où les conceptions empiriques prédominent encore. La doctrine même est appelée parfois la 'scholastique médicale,' à cause

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

du système d'analyse et de classification qu'on y rencontre, qui est fort peu adapté aux besoins d'une science présentant un caractère empirique et pratique," d'Irsay, Universités, I, 111.

44. See Malato and Martini, eds., introduction to L'Arte universale della Medicina (Pantegni), p. 6.

45. See A. Chevalier, "Constantinus Africanus and the Influence of the Arabs on Salerno," Ciba Symposia, V (1944), 1725-1731.

46. "Theorica est perfecta noticia rerum. solo intellectu capiendarum subiecta memorie operandarum rerum," Pantegni, I.4, ed. Malato and Martini, p. 45; and theorica "continet rerum scientiam naturalium et non naturalium et earum que extra naturam sunt," ibid., I.3, p. 44.

47. "Practica est subiecta theorice. [sic] monstrare in sensuum propatulum. et in operationem manuum secundum preeuntis theorice intellectum," ibid., I.4, p. 45. And practica "continet scientiam custodiendi sanos. et sanandi egros. cum dieta et potione. et chirurgia," ibid., I.3, p. 44.

48. In Oskar Cameron Gruner, A Treatise on the Canon of Medicine of Avicenna, Incorporating a Translation of the First Book (London, 1930), p. 26. For a slightly different translation, see Mazhar Shah, tr. and ed.,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The General Principles of Avicenna's Canon of Medicine (Karachi, 1966), p. 55.

49. Karl Sudhoff, "Salerno," p. 51.

50. See n.28 above and chapter III, p.127below.

51. "Quando scolaris redit a locis in quibus praticaverit, libere sibi addicat quemcumque voluerit magistrum...," Cartulaire, No.2.

52. "Item, nullus magister presentet aliquem, nisi ille steterit in practica extra villam Montispessulani per dimidium annum," ibid., No.5.

53. "Ac in similibus locis [i.e. famosis] per octo menses aut duas estates ad minus ejusdem medicine praticam duxerint exercendam," ibid., No.25.

54. Rashdall asserted that "before taking the degree of bachelor in medicine a student had to go a round of visits to the sick accompanied by his own doctor, under whose supervision he apparently experimented upon the patients," Universities, II, 126 and n.5. Rashdall's inference was, however, based on the misreading of a fourteenth-century statute that regulated the visits of clients by students "utriusque juris"; Cartulaire, Appendix, No.10.

55. "Quedam comitissa venit [leprosa] ad Montem Pessulanum, et fuit in fine in cura mea, et quidam

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

baccalarius in medicina, qui ministrabat ei, iacuit cum ea...," Lilium medicine, I.22, in London MS British Museum Harley 3698, fol.13r.

56. "Cum igitur magister Guillermus Rotberti de Montepessulano, lator presentium, qui diu et sedulo vacans exercicio lectionis, qui ab annis teneris se immolavit studio medicine, ad exercendum officium praticandi fuerit presentatus, noveritis quod nos... predictum magistrum...diligenter examinavimus...per quam examinacionem instructus noscitur in experiencia praticandi...," Cartulaire, No.9.

57. "Quia experiencia optima rerum magistra dicitur, statuimus quod, de biennio in biennium ad longius, Cancellarius, una cum Magistro non legente, sacramento sint astricti, ut provideant quod fiat anathomia corporalis," ibid., No.68, Art.xiii. The same idea was reiterated in 1376, when Louis, Duke of Anjou, ordered his judicial officers in Languedoc to provide yearly one corpse of a convict to the University: ibid., No.162.

58. "Sed loquela eorum et opera que sequebantur manifestabant eosdem, in sui et magistrorum confusionem, prevaricacionem artis, direpcionem studii et periculum plurimorum," ibid., No.9 (for the text preceding this sentence, see n.37 above).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

59. "Item, jurent quod nullum recipient laborantem acuta, nisi prius se ostenderit sacerdoti, si possibile sit. Item, jurent quod nullum leprosum in Montepessulano recipient in cura sua ultra octo dies inter duas aquas, videlicet inter Lanum et Amausionem, nisi de licencia curie regis... Item, jurent quod non dabunt alicui albergario vel promittent, per se vel per alium, pro una cura, ultra quinque solidos," Cartulaire, No.5.

60. Article X. "De practica," XI. "De leprosis," XII. "De visitandis apothecariis," XIII. "De anathomia," and XVI. "De magistris absentibus et stantibus in servicio domini nostri pape vel cardinalium," ibid., No.68.

61. "...quavis temeritate impedire vel perturbare presumant, quominus dictus magister Petrus practicare, legere et alios actus dicte sciencie competentes exercere valeat," ibid., Nos.28 and 29.

62. "... seu sanitatem recuperabit corporalem, ita quod et suos infirmos comode valeat visitare," ibid., No.68, art. XXX.

63. "...ipso facto sit suspensus biennio omni honore et comodo magistrali, excepta practica," ibid., articles XXX and XLII.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

64. Donald Campbell, Arabian Medicine and Its Influence on the Middle Ages (London, 1926), I, 160. It should be pointed out, however, that for Campbell "the history of European Medicine in the later Middle Ages is the history of the influence of the Arabians on Mediaeval Europe," ibid., I, xiii. See also chapter I, nn.97-104 above.

65. Rashdall, Universities, II, 136.

66. For the texts prescribed at Paris in 1270-1274 and in 1395, see the Chartularium Universitatis Parisiensis, I, Nos.452-453 and IV, No.1723. For the period between 1274 and 1395, see Stephen d'Irsay, "Teachers and Textbooks of Medicine in the Medieval University of Paris," Annals of Medical History, VIII (1926), 234-239.

67. "...Nos igitur, vestris in hac parte justis desideriis benevolencie paterne favoribus annuentes ac colentes quod de baccalariorum ipsorum ydoneitate et sufficienti pericia plene constet, Apostolica auctoritate, de consilio et ad instanciam dilectorum filiorum magistrorum Guillermi de Brixia et Johannis de Alesto, phisicorum et capellanorum nostrorum, necnon et magistri Arnaldi de Villanova, phisici, ejusdem utilitate Studii suadente, statuimus...," Cartulaire, No.25.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

68. "Singuli baccalarii, in Facultate ipsa, in eodem Studio ad statum hujusmodi promovendi, medicinales scilicet conmentatos et Galieni "De complexionibus", "De malicia complexionis diverse",...et Avicenne, vel, ejus loco, Rasis ac Constantini et Ysaac libros habere, hujusmodi promocionis tempore, teneantur," ibid.

69. This Regimen acutorum morborum was erroneously attributed to Johannitius by Rashdall in his synopsis of the reading list, Universities, II, 127, line 14.

70. "Et insuper duos comentatos et unum non comentatum, videlicet Tegni et Pronosticorum vel Aphorismorum Hippocratis, quoad ipsorum quinque particulas, ac Regimenti et Johannicii aut Febrium ipsius Ysaac vel Antidotarii seu "De morbo et accidenti" et "De ingenio sanitatis" libros, quoad ejus octo particulas, legere," Cartulaire, No.25. The alternate use of the conjunctives et and ac, and the disjunctives vel and aut, makes it appear that some order of preference was established for the selection of these works.

71. "Et ad questiones faciendas eisdem per quemlibet vestrum, legentium publice in scolis Facultatis ejusdem, ad minus semel respondeant, ipsarum repetendo

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

rationes et nodos communiter solvendo...," Cartulaire, No.25.

72. "Et nichilominus, tempore promocionis ejusdem ad statum magisterii memoratum, legant duas, unam videlicet in theorica, reliquam vero in pratica, coram vobis, ad vocacionem Cancellarii Studii supradicti...," ibid.

73. "Incipiunt Statuta Universitatis Montispessulani, ordinata per dominum Thomam de Santurnanicis et alios Doctores canonistas... Nos, Thomas de Santurnanicis, legum doctor, ex potestate nobis concessa et attributa per venerabile collegium et universitatem Magistrorum, Baccalariorum et Scolarium universorum Studii medicinalis Montispessulani,...," Cartulaire, No.68.

74. For the distinction between ordinary and extraordinary lectures, which originated at Bologna, see Rashdall, Universities, I, 205-207 and 433-434.

75. "Item, statuimus et ordinamus quod nullus Magister, nisi legerit ordinarie a festo beati Luce vel a festo omnium Sanctorum exclusive usque ad festum Pasche ad minus, ordinarie legens reputetur, quantum ad circuitum Magistrorum, nec eciam quantum ad examina

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Baccalariorum in questionibus in scolis publice facienda," Cartulaire, No.68, Art. xv.

76. "Magistri ordinarie legere volentes debeant et teneantur eligere, quolibet anno, quo ordinarie legere voluerint, unum de decem cursibus infrascriptis, hoc modo videlicet quod, in eligendo ex illis decem cursibus illum quem voluerit, Magister antiquior preferatur; eligat secundo de hiis cursibus Magister junior;...et sic deinceps per Magistros antiquos et juvenes, usque ad medios procedendo...," ibid., Art. xviii.

77. "Cursus autem prefatos dicimus esse istos volumusque: Primus Canonis totus sit pro uno cursu; Liber de Morbo et Accidenti et Differentiis Febrium, pro alio; ...Liber de Regimine Sanitatis et de Virtutibus naturalibus, pro alio," ibid., Art. xx.

78. Since the passage, "seu cum Johannicio de Pulsibus et urinis Theophili," in the text of the Cartulaire does not make sense, I have transferred the seu to read "cum Johannicio seu de Pulsibus et urinis Theophili."

79. Rashdall, Universities, II, 127, attributed Galen's De virtutibus naturalibus to Bartholomeus Anglicus,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

apparently confusing it with the latter's De proprietatibus rerum.

80. These were the contents of Avicenna's Canon: I. General principles of Medicine, fen 1. Constitutional basis, 2. Health and disease, 3. Preservation of health, 4. Treatment of disease; II. Simple drugs, 1. Temperament of drugs, 2. List of drugs; III. Diseases of individual organs; IV. General diseases, 1. Fevers, 2. Boils, tumors, wounds, and fractures, 3. Poisoning, 4. Beauty care; V. Formulary.

81. "Si tamen predicti cursus non sufficerent Magistris legere volentibus, utpote--denarium excedentibus, statuimus et ordinamus quod, eo casu Magistri super excrescentes, qui de cursibus habere non poterunt, utpote ab aliis occupatis, secundum modum et ordinem supradictum possint pro ordinatoria lectura libere, prout optaverint, de libris seu cursibus infrascriptis recipere, videlicet "De febribus" Ysaac, cum "Dietis universalibus" ejusdem, vel tercia vel quarta fen quarti Canonis; vel alias duas fen ejusdem quarti; vel de tercio Canone Avicenne vel de aliis libris Galieni; istaque sufficiant ad cursum superius pro ordinarie legentibus ordinatum," Cartulaire, No.68.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

82. For a later period, the fact that also Montpellier works were used in medical teaching, is indicated in the case of Heinrich Lamme of Lübeck, who studied medicine at Montpellier around 1400. He copied treatises by Arnold of Villanova, Bernard de Gordon, Gerard de Solo, Johannes Jacobi, and Johannes de Tornamira. These were probably the texts which Heinrich had been expected to study, according to Ernest Wickersheimer, "Le discours de réception d'un bachelier en médecine montpelliérain au début du XVe siècle," Bulletin de la Société française d'Histoire de la Médecine, XIII (1910), 245-251.

83. See chapter III and appendix I below.

84. See n.68 above.

85. The latter would appear from Karl Sudhoff's discussion of ars medicine and ars commentata and the use of these terms at Salerno and Paris, "Medizinischer Unterricht und seine Lehrbehelfe in frühen Mittelalter," Archiv für Geschichte de Medizin, XXI (1929), 34-37. C.H. Haskins had still been in the dark about the meaning of these terms when he examined the Sacerdos ad Altare and compared with it the statutes of Paris (1270), Naples (1278), and Salerno (1280) in his Studies in the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

History of Mediaeval Science (New York, 1924), pp. 368-375.

86. "Magistri ordinarie legere volentes debeant et teneantur eligere, quolibet anno, quo ordinarie legere voluerint...," Cartulaire, No.68. Also see n.81 above.

87. The term extraordinarie is not found in the Cartulary, where all masters who did not actually teach ordinarie were simply referred to as "non legentes." From reading all the texts, however, one receives the impression that eventually (and in spite of the 1240 regulation, cited in the following note) masters as well as bachelors taught extraordinary or, what might be called "informal" courses. See also Rashdall, Universities, I, 434.

88. In the 1240 statutes it had been determined that only bachelors could teach cursorily, "nullus magister legat in scolis aliquo tempore cursorie, sed soli baccalarii," Cartulaire, No.5. The 1340 statutes specified that "post crastinum Apostolorum Petri et Pauli [30 June], usque ad festum Assumpcionis Beate Marie [15 August], Baccalarii possint legere cursorie, preterquam in diebus festivis a populo communiter observatis," Cartulaire, No.68, Art. xxxv.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

89. "Item, statuimus quod hora vesperorum sit magistralis, exceptis vigiliis, quibus possint Magistri cum Baccalariis disputare, eciam diebus Ypocratis, quibus eciam Magistri possint quacumque hora cum Baccalariis disputare; et in dicta hora vesperorum nullus Baccalarius legere audeat, nisi in casu quod nullus Magister legeret in eadem," ibid., Art. xxv. It is not clear what is meant by "Hippocratic days," perhaps the days of promotions in the Faculty of Medicine?

90. "Nullus magister legat vel permictat legere in scolis medicinalibus aliquem librorum...naturalis sciencie... excepto libro 'De animalibus'," Cartulaire, No.68, Art. xxxi.

91. See n.57 above.

92. The difficulty of obtaining corpses, rather than the ecclesiastical objections, appears to have been the greatest handicap to dissections in the fourteenth century (and in fact, in the succeeding centuries). It would lead us too far to elaborate this thesis here, for example with the evidence supplied in the decree of Louis of Anjou in 1376, referred to in n.57 above.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Also in the trial of Master Albert at Bologna in 1319, it appears that his crime was the exhumation of a corpse, rather than the dissection as in the interpretation of the record by Giuseppe Portigliotti, "Dissections clandestines au XIVe siècle," Aesculape, XIII (1923), 284-286. Portigliotti also assumes that no dissections on human corpses took place before Mundino at Bologna (1306-1310). More qualified, in this regard, is the view of Walter Artelt, "Die ältesten Nachrichten über die Section menschlicher Leichen im mittelalterlichen Abendland," Abhandlungen zur Geschichte der Medizin und der Naturwissenschaften, Heft 34 (1940), 11-33.

93. The relation of surgery and medicine at Montpellier deserves more careful examination than it can receive here. On the basis of ambiguous evidence, it has been claimed that the teaching of medicine and surgery were united until the end of the fourteenth century, and that "l'Ecole de Montpellier, marquant ainsi, dès ses débuts, sa conception élevée de la formation chirurgicale, a maintenu, plus longtemps que celle de Paris, l'union nécessaire de ces deux branches d'un même art," Emile Forgue, Sept siècles

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

de chirurgie à la Faculté de Médecine de Montpellier (Montpellier, 1920), p. 6; similarly, Sarton, Introduction, III, 272. Also, "the fact that surgery was practised by physicians shows the superior position of the art as compared with the position it held at Paris," Rashdall, Universities, II, 136, n.2. The evidence is also used lightly, although in support of a different thesis, by Vern L. Bullough, The Development of Medicine as a Profession (Basel, 1966), p. 59.

94. "Item, statuimus quod nullus Magister possit eligere nec legere cursum quem alius Magister elegit ad legendum; et ex quo Magister aliquis semel cursum aliquem elegerit, postea variare non possit, alium eligendo; et quod librum quem uno anno legerit, non possit de quinque annis legere, sed quod legat de aliis libris et cursibus, secundum ordinem supradictum," Cartulaire, No. 68, Art. xix.

95. See above, n.67. For more on these three masters, see chapter III and appendix I below.

96. See n.73 above.

97. For a tentative synopsis of the ars medicine, see Sudhoff, "Medizinischer Unterricht," pp. 33-34.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

However, further study would be required to determine the exact contents of the ars medicine in 1309, since this canon was gradually elaborated from its original Salernitan form into a larger collection that became, under the title of Articella, the nucleus of the later medieval curriculum.

98. See, for example, chapter III and appendix I below, for the commentaries on the ninth book of Rasis' Ad Almansorem by Gerard de Solo (d. 1371) and by Johannes de Tornamira (d.ca. 1309). It may also be noted that, in the curricula of 1537 and 1550, one course on Rasis was prescribed, according to Alexandre Germain, Introduction, Cartulaire, pp. 76-78.

99. See "habere" in n.68 and "legere" in n.70 above.

100. Moreover, the statutes of 1340 also allowed courses to be taught "de aliis libris Galieni": see n.80 above.

101. For a detailed list of Niccolo's translations, see Lynn Thorndike, "Translations of Works of Galen from the Greek by Niccolo da Reggio (c. 1308-1345)," Byzantina Metabyzantina, I (1946), 213-235.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CHAPTER THREE

THE ACADEMIC TRADITION OF MONTPELLIER IN ITS SCHOLARS AND WRITINGS

In the preceding chapters, the complexity and diversity of Montpellier's academic tradition have become evident in the genesis of the schools and in the curriculum of the University. An even richer source of information, largely still untapped, lies waiting in the gallery of scholars and in the corpus of writings that emanated from Montpellier in the thirteenth and fourteenth centuries. An exhaustive exploration and synthesis, however, of all the biographical data and source materials lies beyond the scope of the present study. In fact, such a comprehensive analysis would seem a forbidding task, as one may gather from an Appendix below, in which are listed the authors and writings associated with Montpellier. Therefore, rather than an in-depth examination of the entire Montpellier corpus, an interpretive survey will be attempted in this chapter,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

highlighting some representative masters and selecting some works in relation to the curriculum. The emphasis, moreover, will again be on medicine and, to a lesser extent, on the liberal arts, rather than on law and on theology, although the possible interaction between the various disciplines cannot be ignored.

An interesting instance of what today would be called "the interdisciplinary approach," is found in several of the works composed by Ramon Lull around 1300. Ramon, who taught either in the school of the Friars Minor or, more probably, in the Faculty of Arts at Montpellier,[1] devised a method for the application of his "new logic" to the study of both medicine and law. He expounded that method in his Arbor scientie as well as in his treatises De principiis medicine and De modo applicandi novam logicam ad scientiam juris et medicine.[2] Aside from the combination in Ramon's last named work, however, there is little evidence of interaction between the study of the arts and of medicine on the one hand and that of law on the other hand, until at least 1340. In that year the members of the Faculty of Medicine entrusted the formulation of their new statutes to Thomas de Santurnanicis and other canon lawyers.[3]

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The Faculty of Law itself had received its first statutes only one year earlier, in 1339,[4] even though it was mentioned as a part of the studium generale that was established by papal decree in 1289.[5] Moreover, although the famous legal Speculator, Guillelmus Durandus (d. 1296), is said to have "gravitated around Montpellier and Bologna,"[6] and although the first recorded granting of a doctorate in law dated back to 1292,[7] it would appear that the Faculty of Law reached its maturity only towards the middle of the fourteenth century.[8] Because by that time the "Golden Age" of the University of Montpellier was coming to a close,[9] a further examination of the legal writings and their authors would only lengthen, and probably sidetrack, rather than enrich our study. It deserves mention, nevertheless, that the Law Faculty counted illustrious personalities both among its students, for example Petrarch (from 1319 to 1323)[10]; and among its professors, for example Guillaume de Nogaret (in 1292),[11] the future nemesis of Pope Boniface VIII; Guillaume Grimoard, the future pope Urban V (r. 1362-1370)[12]; and Pedro de Luna, the future antipope Benedict XIII (r. 1394-1423).[13] It may be noted further that, according to Rashdall, the students of theology

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"remained members of the legal university" even after a faculty of theology was erected in 1421.[14]

In view of its late incorporation into the University of Montpellier, the Faculty of Theology and its masters fall beyond the reach of our investigation. It seems pertinent, on the other hand, to emphasize here the activities of the local monastic and mendicant schools of theology in the thirteenth century. In 1263, King James I of Aragon donated to the Cistercians[15] a terrain --"in which the Jews of Montpellier were wont to be buried" -- for the foundation of a _studium_ of theology, not only for the members of the Order but also for others who desired to study there.[16] Only two years later, in 1265, this "Collège de Valmagne" received the official sanction of Pope Clement IV, who noted that "the study of literary science (_studium scientie litteralis_)" prospered there.[17] This seems to indicate that the masters of this _studium_ did not limit their teaching exclusively to theology. To this indication may be added Alexandre Germain's assertion that around 1342, when a master of Valmagne founded the "Collège de Bresse" or "de Pézénas," there was more emphasis

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

on literary and legal studies in this "daughter college."[18]

A similar breadth of vision is found in the studium of the Order of Preachers. In 1269, for example, a debate was held at Montpellier between Languedoc rabbis and Dominican masters. One of these masters, friar Raymond Martin, was said to have "sown the seed [of knowledge] of the Hebrew language" in the heart of his students.[19] The studium of the Friars Preachers, which was founded before 1250,[20] deserves special attention. It played an important role in the network of Dominican education, and it was promoted to a studium generale of the Order in 1286.[21] From the moment of its foundation, moreover, it was a "public" school of theology; and the master and his students were "part of the universitas of masters and scholars."[22] One head of a Montpellier school in the first half of the thirteenth century was Friar Elias Brunet of Bergerac, who had been one of the masters of Saint Thomas Aquinas (1225-1274).[23] This brings us to a particularly fascinating aspect of the Dominican studium at Montpellier, namely the fact that it was presumably one of the earliest centers of Thomism.[24] One of the leaders of this Thomism was friar Bernard de la Treille (ca. 1240-1292), who composed a treatise De

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

distinctione esse et essentie, as well as eighteen Questiones de cognitione anime separate a corpore, and other works on philosophy and theology.[25] Also the other mendicant order, that of the Friars Minor, had a studium solemne in Montpellier, but it was probably founded later than that of the Friars Preachers and its teaching was allegedly less sophisticated.[26] In the early fourteenth century, the Franciscan orientation was represented in the works of Vitalis de Furno (fl. 1295-1327), such as his commentary on Peter Lombard's Libri quattuor sententiarum, and his Quodlibeta theologica.[27]

With regard to the studia of religious orders in Montpellier, it has been suggested in an earlier chapter that some of the monastic schools may have played a role in the genesis of the Faculty of Arts.[28] We have only scant information, however, on the masters either in those schools or in the Arts Faculty. Thus, it is not clear exactly what and where the Cistercian Alain de Lille taught in Montpellier around 1200.[29] We do know, on the other hand, that Alain, the Doctor universalis, wrote there a work on logic, In distinctionibus, as well as several theological treatises. Among the latter may be

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

mentioned his tract against the Albigensian heresy, Contra haereticos, which he dedicated to Count Guillem VIII.[30] A commentary on Alain's most famous work, the Anticlaudianus, was composed at Montpellier around 1220 by master Raoul de Longchamp, about whom nothing else seems to be known.[31] Shortly after 1242, the year in which the Faculty of Arts received its constitution from the bishop of Maguelone, Ponce de Provence taught the ars dictaminis at Montpellier, where he also compiled a Summa de dictamine.[32] The activities of this dictator indicate that also rhetoric in its epistolary form was taught at Montpellier, even though only the two other arts of the trivium, namely grammar and logic, were mentioned in the 1242 constitution.[33]

It seems impossible to apply a similar extrapolation to the teaching of the quadrivium within the Arts Faculty. To be sure, at least indirect evidence of a local interest in the quadrivium is provided by the impressive number of mathematical treatises that were composed or translated at Montpellier between 1250 and 1350. None of the authors or translators, however, can with certainty be associated with the Faculty of Arts. For example, we know nothing but the name of Magister Anianus, the author of a late thirteenth-century Compotus manualis, who may conceivably

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

have been a master of arts.[34] One scholar, who probably lectured on astronomy in the Arts Faculty, was Robertus Anglicus de Montepessulano. Robert wrote a commentary on the Sphera of Sacrobosco in 1271, a Tractatus quadrantis at Montpellier in or before 1276, and a set of Canones de Astrolabio.[35] Some other authors of quadrivial works, however, lectured in the Dominican studium. This was the case for the earlier mentioned Bernard de Treille, who composed Questiones on Sacrobosco's De sphera antiqua[36]; and for friar Petrus Vitalis, who in 1318 drew up a Novum kalendarium dedicated to Pope John XXII.[37]

Presumably outside the University but, as we shall see, not isolated from it, were the mathematical endeavors of the Jewish scholars. The most prolific of these was Moses ben Samuel ibn Tibbon who, in the third quarter of the thirteenth century, translated from Arabic into Hebrew some thirty works, ranging from theology to medicine. These works included Euclid's Elements, Theodosius of Bithynia's Spherics, and a Treatise on arithmetic and algebra by Muhammad al-Hassar (second half of the twelfth century).[38] The quadrivial arts were also treated by Levi ben Hayyim, who compiled an encyclopedia in Hebrew verse and wrote a treatise on

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

astronomy and astrology at Montpellier in 1276.[39] At least a half century of activity is represented in the translations and treatises of Jacob ben Makhir, better known as Profacius Judeus. His first translation was probably that of the Arabic version of Euclid's Elements, which Profacius made around 1255; his last translation, namely that of Averroes' commentary on Aristotelian zoology, was completed in 1302.[40]

Profacius is of particular interest, because his knowledge of astronomy was the focal point of the attention of several masters of the University. Thus, already in 1263 Profacius and master John of Brescia collaborated on a Latin translation of Al Zarkali's astronomical table known as Saphea: Profacius translated from Arabic into Provençal, and John then wrote the Latin equivalent.[41] Furthermore, at the request of master Bernard de Gordon, Profacius drew up and explained an armillary, a concentric map of the celestial sphere.[42] Another work, the Quadrans novus, composed by Profacius in 1288,[43] was rendered from Hebrew into Latin only two years later, by master Armengaud Blasius.[44] This work soon entered the schools as one of the textbooks of practical astronomy.[45] Also Profacius' Almanach, or astronomical

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

tables for the longitude of Montpellier and for the year beginning on 1 March 1300, was "soon translated into Latin."[46] In addition, Profacius' Hebrew version of Costa ben Luca's Practica sphere solide was translated into Latin in 1301 by Stephanus Arlandi.[47] Stephanus, who was to become vice-chancellor of the University of Medicine at Montpellier, may also have translated Costa ben Luca's De sphera volubili.[48] In 1312, finally, Profacius' own treatise on the phases of the moon was latinized by an unknown member of the University.[49] Another translation, though pertaining to medicine rather than to astronomy, may be mentioned here because it offers a striking illustration of the contacts between Jewish and Christian scholars. In 1299, namely, Profacius translated Avenzoar's Regimen sanitatis with the assistance of the surgeon Bernardus Honofredi, at the request of a master of medicine, Petrus de Capitestagno.[50]

Since all the masters, who have been mentioned above in connection with Profacius, were physicians, it may be argued that their activities do not necessarily demonstrate the teaching of the quadrivium in the Faculty of Arts, but rather the interest of the physicians in astronomy. We may reiterate, however, our earlier observation that

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

there was no clearly defined distinction between the liberal arts and the preliminary phase of medical education at Montpellier in the thirteenth century.[51] In any event, one notices further that the concern of the physicians was primarily with practical or applied astronomy, often pervaded by astrology, especially the influence of the stars on man's health. One exceptional case, perhaps, was that of Guillelmus Anglus or Grisaunt, who shortly after 1300 composed a treatise on theoretical astronomy, namely De magnitudine solis.[52] On the other hand, the physicians' general concern with practical astronomy and with astrology is exemplified in several other works. Among these were Ramon Lull's Liber de medicina et astronomia,[53] Arnold de Villanova's Introductorium astrologie pro medicis practicantibus,[54] and Bernard de Gordon's translation of the pseudo-Ptolemaic Reductio geomancie ad orbem.[55] The application of astronomy to medicine will be illuminated more concretely in later chapters, when we will examine Bernard's above named translation as well as his consideration of the stars with regard to medical subjects such as venesection, fevers, and critical days. It should also be added that, in order to deal with astronomy, the physicians had to have

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

some proficiency in arithmetic, the first of the mathematical arts.

Further evidence of interest in mathematics is found in the writings of several Montpellier physicians who tackled the problem of the exact dosage of medicines.[56] The earliest of these writings, namely the Dicta de dosi medicinarum of Gualterus Agulinus (ca. 1250),[57] was primarily descriptive, while half a century later the De levitate et ponderositate elementorum (1293) of Ramon Lull was already much more analytical.[58] About 1300, Arnold de Villanova in his Aphorismi de gradibus elaborated the Galenic mathematical pharmacy and devised a system for the quantification of the properties of compound medicines.[59] A few years later, Bernard de Gordon in his Libellus de graduacione (1303) attempted to clarify the system of his colleague Arnold.[60] These essays in mathematical pharmacy culminated in 1326 with Jordanus de Turre's De adinventione graduum in medicinis simplicibus et compositis, "a work which offers the clearest conceptualization of qualitative magnitudes to be found in the Montpellier pharmacy."[61]

The advance of conceptualization, which may be considered one of the characteristics of scholastic medicine,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

is further demonstrated in several Montpellier writings on other specialized topics. One such topic, related to the question of dosages and compound medicines, was theriac, the antidote and panacea that was prepared by blending viper's flesh with various other ingredients. The mysterious properties and effects of theriac were apparently debated at Montpellier in the first quarter of the fourteenth century, and the debate revolved around the views expressed by Averroes in his Tractatus de tyriaca.[62] Averroes was denounced in Arnold de Villanova's Epistola de dosibus tyriacalibus; like Averroes, however, Arnold sought rationally to explain the properties of theriac and to determine its dosage on the basis of natural philosophy.[63] Bernard de Gordon, on the other hand, avowedly composed his Tractatus de tyriaca "according to the views of Averroes and others"[64]; but he attempted to solve the problems by analogies with the principles of Aristotle's Ethics and by a careful description of the drug's history and preparation.[65] A compromise with regard to Averroes' views was reached, finally, in the Questiones de tyriaca of Gullielmus de Brixia,[66] who together with Arnold of Villanova advised Pope Clement V on the 1309 curriculum of Montpellier's Medical Faculty.[67]

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Moreover, Gullielmus used arguments that were far more sophisticated than those of Bernard, and he displayed a familiarity with natural philosophy that surpassed Arnold's.[68]

Natural philosophy was also applied to the elaboration of several other medical questions that had initially been raised by one or other Greek or Arabic author. Some of these questions were logically interrelated and appear to have aroused particular interest at Montpellier. We may mention, for example, the questions of life and death, of procreation and sterility, and of sexual infatuation. An explanation of life and death by the presence and desiccation of the "radical moisture" had been suggested especially by Avicenna, on the basis of the Galenic humoral theory.[69] This explanation was elaborated further in Arnold de Villanova's treatise De humido radicale.[70] To the same theory, moreover, Bernard de Gordon also devoted the second part of his tract De marasmode, which was intended as a commentary on Galen.[71] Bernard introduced his tract with a lengthy questio on the role of male sperm in conception, and he has also been credited with a Tractatulus de sterilitate or Libellus de impregnacione.[72] His colleague Arnold,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

on the other hand, was the author of a Compilatio de conceptione.[73] A generation later Raymond de Moleriis, who was chancellor of the Medical University in 1335,[74] composed a treatise De sterilitate in two parts, namely I. De sterilitate mulierum, and II. De impedimentis conceptionis ex parte viri.[75] Moreover, the subject apparently remained popular during the second half of the fourteenth century.[76] Finally, the subject of lovesickness or "heroic love" was treated by Arnold de Villanova in the De amore hereos,[77] and by Bernard de Gordon in a special chapter of the Lilium medicine.[78] A later work on the same subject was Gerard de Solo's Determinationes de situ spiritu et amore hereos.[79]

With their specialized subjects that ranged from medicinal degrees to lovesickness, the above mentioned medical writings seem to have been extracurricular in origin or, at least, to have been addressed to the more advanced students. More closely related to the university curriculum, on the other hand, were not only the commentaries, which will be surveyed later in this chapter, but also the original treatises on such cardinal subjects as fevers, phlebotomy, urines, and pulses. These treatises are so numerous that it would be impractical to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

enumerate them here. Rather, limiting ourselves to the authors who composed treatises on more than one of these subjects, we may cite, for the thirteenth century, Henricus de Guintonia, who was chancellor of the University of Medicine in 1240,[80] and Gualterus Agulinus, of whose career almost nothing is known[81]; and, for the fourteenth century, Bernard de Gordon, whose works will be examined in detail later,[82] Stephanus Arlandi, who was vice-chancellor of the Medical University in 1319,[83] and Jordanus de Turre, whose name occurs four times in the University documents between 1313 and 1320.[84] It is worth noting that the greatest number of treatises are related to the classification, causes, and cures of fevers, whereas only two Montpellier works on pulses seem to be extant.[85] We may observe, furthermore, that the study of fevers, urines, pulses, and hematology[86] pertained primarily to theoretical medicine, as defined in the preceding chapter.[87] It is difficult, however, to assign to these subjects a specific place in the division of medicina theorica found, for example, in the Pantegni of Haly Abbas.[88]

It is, on the other hand, easy to identify the Montpellier writings that belonged to the realm of medicina practica, even though these also contained much that related

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

to theory. There is, first of all, a large group of treatises that either bore the title Practica or were avowedly intended as summaries of practical information. Furthermore, several treatises correspond directly to the division of practical medicine according to the Pantegni, namely into the preservation of health and the treatment of disease, either with medication and diet or with surgery.[89] The first group of works on practical medicine comprised the general compendium or summa for the student as well as the convenient vade mecum or breviarium for the busy practitioner. Among such works, compiled at Montpellier in the thirteenth century, were the Summa medicinalis or Practica of Gualterus Agulinus,[90] the Practica or Rogerina of Roger de Barone,[91] and the Compendium or Practica, the first of five treatises in Richardus Anglicus' Micrologus.[92] Furthermore, around 1300 Ramon Lull composed a Practica medicinalis[93]; Arnold de Villanova wrote a Liber introductorius or Medicinalium introductorium speculum (1298) as well as a Practica summaria[94]; and Bernard de Gordon compiled a Practica (1303) that became famous as the Lilium medicine.[95] In his prologue to the Lilium, Bernard asserted that he compiled this book on practice "for the benefit of the humble"; and from the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

contents it is evident that by the humble he meant the young and inexperienced physicians.[96] In the half century that followed, several other practical manuals were composed expressly for the young. Thus, Jordanus de Turre in 1318 dedicated a collection of instructions (Recepte) "to his son who was going into practice."[97] A few years later Guillelmus de Biterris, who was chancellor of the Medical University in 1320, began his Isagoge ad practicam medicine with the words, "Because the time has come to go to practice and you are [still] very young scholars."[98] Around 1350, moreover, Gerardus de Solo wrote a Directorium that was also entitled Introductorium iuvenum.[99] Still later in the century, Johannes de Tornamira dedicated his Parva practica "to a certain bachelor going to practice."[100]

Practical guidance for the physician was provided not only in the comprehensive manuals, but also in several writings that related specifically to one or other part of medicina practica, namely the preservation of health and the treatment of disease. However, the unity of these two parts is indicated, for example, in the fact that Bernard de Gordon's treatise De ingenio sanitatis was also called De ingeniis curandorum morborum.[101] On the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

preservation of health, or Regimen sanitatis, several works were composed at Montpellier in the thirteenth and fourteenth centuries. One of these was written in 1281 by an unknown author,[102] another in 1308 by Bernard de Gordon,[103] and a third in the 1330s by Gerardus de Solo.[104] Other regimens, furthermore, were more specific, like the Libellus docens purgare quatuor humores of Magister Cardinalis,[105] the Regimen potionatorum of Gualterus Agulinus,[106] and the Regimen castra sequentium of Arnold de Villanova.[107] Of particular interest to the historian, finally, are the regimens that were drawn up by Montpellier masters for the benefit of a specific individual. Of these, only regimens prescribed to notable patients have come to us. One is inclined to infer that only the mighty and the wealthy could afford such special regimens, but it is also possible that only the regimens of famous people were considered worth preserving and copying. Whatever the case may be, among these custom-made regimens we find one for Pope Boniface VIII (1301) and one for King James II of Aragon (1305), both in the hand of Arnold de Villanova[108]; one dedicated to the king of Hungary (ca. 1325) by Johannes Bononiensis[109]; and one for the bishop of Saint-Paul-Trois-Châteaux (ca. 1335),

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

a joint effort of four Montpellier masters.[110]

Several of those personal regimens might be classified under the second part of practical medicine, namely the treatment of disease with medication and diet, since they contained therapeutic prescriptions as well as preventive advice. Thus, Arnold's regimen for Pope Boniface was especially concerned with the pope's kidney stone[111]; the bishop of Saint-Paul, on the other hand, was showing signs of incipient paralysis and colic.[112] In the field of therapeutics itself, furthermore, a group of Montpellier writings was concerned with the treatment of one or other specific disease. The thirteenth-century Magister Cardinalis, for example, described cures for eye diseases, for apoplexy, and for leprosy.[113] From the fourteenth century, moreover, a great number of therapeutic tracts have survived. These tracts deal with diseases such as gout,[114] epilepsy,[115] dropsy,[116] and catarrh,[117] or with ailments such as paralysis,[118] deafness,[119] and headache.[120] Somewhat peculiar but illustrative of this kind of tract is Raymundus de Molerlis' collection of cures for diverse diseases. It is a brief work with an endless title, Cura quartane ventris, tinearum, quotidiane, remedia contra ficum, contra obscuritatem visus et maculam

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

in oculis, ad clarificandum visum, contra fluxum lacrimarum, contra dolorem aurium, surditatem, vermiculos, fetorem et hemorragiam narium, contra fetorem oris, contra squinanciam, raucedinem.[121] Some works with more concise titles, however, were far more comprehensive. This was the case for Arnold de Villanova's Antidotarium[122] and Stephanus Arlandi's Dietarium.[123] Also, "tried and proven" remedies were offered, before 1300, in the Item expertum valde of Petrus Lucratoris,[124] in the Experimenta magistri Gilberti Cancellarii Montispessulani,[125] and in the Experimenta of Nicholas de Polonia[126]; and after 1300, in the Recepte of Petrus Borelli de Capitestagno,[127] in the De experimentis of Jordanus de Turre,[128] and in the Experimenta of Stephanus Arlandi.[129] In addition, some tracts described one specific type of medication, such as syrups, plasters, or clysters.[130] On a more general level, finally, were the Summa de modo medendi of Gerard of Montpellier,[131] and the Regimen acutorum of Bernard de Gordon.[132]

Among the writings on practical medicine a special group comprises the plague treatises that were composed at Montpellier in the wake of the Black Death.[133] Some of these treatises were primarily concerned with a rational

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

explanation of the epidemic and sought the causes in astrology. Typical of this trend were, for example, the De judicio solis in convivio Saturni by Simon de Covino,[134] the Tractatus de epidemia by an anonymous practitioner of Montpellier,[135] and the Epistola et regimen de pestilentia by Alphonso de Cordoba.[136] However, the above mentioned practitioner as well as Alphonso, who was "master of the liberal arts and of medicine,"[137] also paid attention to the problems of infection, of treatment, and, most importantly, of prevention.[138] Furthermore, Johannes Hake, bishop of Freising and alumnus of Montpellier, dictated specific prescriptions Ad preservandum ab epydemia.[139] While none of the aforecited authors may have been associated with the University of Medicine when they wrote their pest tract, some other treatises were composed by University members, masters or doctors, in one case apparently with the assistance of the chancellor himself.[140] And several of these treatises were evidently concerned with the treatment and prevention as well as with the explanation of the plague.[141]

In addition to the treatment of disease with medicines and diet, the study of surgery was also part of medicina practica.[142] The distinction should be clearly made between the theoretical knowledge of surgery, which

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

physicians had to acquire, and the actual practice of surgery, which physicians left to the "manual operators" or chirurgi.[143] It seems, therefore, incorrect to assume that at the University of Montpellier surgery, as a manual art, was more highly esteemed and more closely united with the study of medicine than at Paris. This view, which was set forth by such noteworthy authorities as Rashdall and Sarton,[144] appears to be based largely on inconclusive evidence. The sources of this information apparently were the studies by Montpellier surgeons-historians, especially the eighteenth-century Jean Astruc and the more recent Emile Forgue.[145] Forgue, for example, claimed that "the definitive separation between the two disciplines manifested itself" only towards the end of the fourteenth century.[146] It is true that master Guillelmus de Congenis composed a Chirurgia at Montpellier around 1215.[147] Guillelmus, moreover, had his students attend the operations he performed in the Hospital of the Holy Spirit, so that "they might learn to operate, not only by hearing but also by seeing."[148] There is no proof, however, that "master" Guillelmus was either a physician or a member of the University of Medicine.[149] In fact, an indication of the fact that surgeons were probably not members of the University is found in the statutes of 1239.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

These statutes included a provision by which the surgeons were exempted from the examination for the license to practice.[150] Much has been made, furthermore, of the connection between Montpellier and Henri de Mondeville,[151] who in 1306 composed a textbook on surgery, in which he cited Bernard de Gordon and other physicians.[152] However, Henri was evidently not a physician himself, and he spoke of "us surgeons and all illiterates (or, unschooled in booklearning)" in one and the same breath.[153] Moreover, Henri spent most of his career in Paris and at the court of the French kings.[154] Also the importance of the still more famous surgeon, Guy de Chauliac, as a representative of Montpellier has been exaggerated.[155] Guy studied not only medicine at Montpellier, but also surgery at Bologna, at Toulouse, and perhaps in Paris; and he is not known ever to have taught.[156] Rather than inferences from the works of the above named surgeons, therefore, only a thorough examination of the treatises of Montpellier physicians is likely to result in a more accurate definition of the relationship between medicine and surgery in the Montpellier academic tradition.

Even when we exclude the surgical writings, the copious and diverse literature on medicina practica that was produced at Montpellier, especially in the fourteenth

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

century, proves that neither the progress of booklearning nor the elaboration of medical theory precluded practical concerns. It seems fallacious, therefore, to seek the advance of medical scholasticism in the fact that, from about 1300 on, Montpellier's masters "were no longer composing the practical guides characteristic of Western medicine in the first half of the thirteenth century," and to assert that, "as commitment to system and generalized theory strengthened, descriptions of practice vanished from the writings of the school."[157] Hence, the features of scholastic medicine need to be defined more accurately. It should also be realized that several of these features were already visible in the first half of the thirteenth century, if not earlier; moreover, the rise of scholasticism at Montpellier was neither uniform nor absolute, and its features are discernible in the works on theory as well as those on practice, including surgery.

In attempting to unravel the essential characteristics of scholasticism, "that many-layered concept,"[158] as a form of medical thought, we may be guided by certain analogies between medicine and theology.[159] First, it should be kept in mind that the term 'scholastic', as

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

applied to medicine as well as when used for theology or philosophy, is "essentially a term of method" rather than of content.[160] The primary aim of that method was to make "accessible to teaching and learning" the intellectual heritage of the past, and to coordinate "traditional truth and rational argumentation."[161] Because of the complexity of that task, the importance of experience was sometimes overlooked. Furthermore, in the organization of the material as well as in the argumentation, logic was a very important tool. And finally, Aristotelian logic in particular and Aristotelian thought in general usually served as the paradigm or, at least, as the catalyst of scholastic argumentation.

Beginning with the last mentioned feature of scholasticism, we may note that Western medical authors had access to Aristotle through at least four channels, namely through the Latin translations of his works, through the writings of Galen, through the Arabic commentators such as Avicenna and Averroes, and through the "Scholastic" philosophers such as Saint Bonaventure and Saint Thomas Aquinas. There are indications that Montpellier medical authors cited Aristotle, discussed Aristotelian theses, and used Aristotelian terminology more frequently after

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

1300.[162] However, these indications would have to be investigated further in order to provide conclusive evidence. In any event, the influence of Aristotle may also have increased indirectly, with the apparent strengthening of Galenism at Montpellier in the fourteenth century.[163] It is significant, on the other hand, that in spite of the presence at Montpellier of active mendicant *studia* and of an early "Thomist" center, alluded to previously, the masters of the Medical Faculty rarely cited Dominican or Franciscan Scholastics, except Albertus Magnus.[164] Moreover, Montpellier apparently lacked physicians who wrote commentaries on Aristotelian works, whereas Paris, for example, counted among its physicians such eminent Aristotelian commentators as Petrus Hispanus,[165] Peter of Abano,[166] and Bartholomew of Bruges.[167] Montpellier physicians, finally, seem to have consulted Avicenna and Averroes primarily as medical authorities, rather than as interpreters of Aristotle.[168] In fact, Averroes was *persona non grata* to the alleged protagonist of medical scholasticism at Montpellier, Arnold de Villanova.[169]

If Arnold played a leading role in the development of scholastic medicine, his works and views may be examined

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

briefly, together with those of some other Montpellier authors, in order to illuminate the complex and uneven character of scholasticism. First, it is worth remembering that in our earlier survey of Montpellier writings, Arnold's name occurred not only among the authors of theoretical treatises, but also among the authors of practical tracts. Furthermore, while he was evidently interested in theoretical problems and rational argumentation, Arnold also criticized the Parisian and northern physicians for studying too much philosophy (scientiam de Universali), and caring too little to have particular experiential knowledge (particulares cognitiones et experimenta).[170] Finally, in the prologue to his own synpptic Practica summaria, he complained that physicians studied medicine in "summaries and compendia," such as "the stories of Gilbertus [Anglicus] and the fables of Pontius [de Sancto Aegidio] and of Gualterus."[171] The so-called "fables" of the last named, Gualterus Agulinus, scorned by Arnold, are contained in the Summa medicinalis, a work that indicates the existence of scholastic medicine before 1300. The Summa, composed about 1250, has several features that are characteristic of scholasticism, according to its modern editor, Paul Diepgen.[172] For example, the Summa medicinalis reiterates the emphasis which Galen and Avicenna had placed on the need for theoretical

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

knowledge in the treatment of diseases.[173] Furthermore, the work contains numerous citations of Hippocrates, Galen, Rhazes, and Avicenna. And the latter is often referred to as the spokesman, "Avicenna interprete," for the other authorities.[174] Further evidence for Gualterus' scholasticism may be found in the logical organization of the Summa. Each of the one hundred forty two chapters is divided into the definition (regula), causes, symptoms, and treatment of the discussed disease. The organization of the subject matter is unusual, however, in that the diseases are arranged according to the changes they cause in the color of the patient's urine, rather than according to the head-to-toe order.[175]

In contrast with the Summa of Gualterus, and thereby indicative of the relative character of medical scholasticism, was the Informacio scolaribus of Guillelmus de Biterris, who was chancellor of the University of Medicine in 1320.[176] In his instructions Guillelmus gave no place to theoretical definitions or logical arguments but addressed himself immediately to practical problems such as how to air the room of the patient and how to help him sleep.[177] Moreover, no authorities are cited. The tract also displays such a total lack of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

organization that one is led to view it as an impromptu address, rather than as a scholarly treatise.[178] Nevertheless, the Informatio scolaribus well serves to demonstrate that, two decades after 1300, scholasticism was not yet pervading all medical teaching at Montpellier.

A marked difference, however, appears in our third example, a composition by master Gerardus de Solo, that was similar to those of Gualterus and Guillelmus, though much longer. Gerard was a professor of medicine at Montpellier in 1335.[179] His Introductorium iuvenum, while avowedly also destined for "the young", presents a specimen of scholastic medicine at its worst.[180] The seven parts of the treatise are each divided into several articles, which are further subdivided into paragraphs, and so on, almost ad infinitum. Gerard cited a great number of authorities. These range from Euclid and Aristotle to Alkindi and Averroes, while "moderns" such as Albertus Magnus, Bartholomew of Bruges, and Arnold de Villanova are also quoted. The emphasis, however, is on Galen, who is cited about 50 times, and on Avicenna, who is named about 40 times.[181] It is also interesting that Gerard sides with Averroes and the "common opinion" against Arnold and the "new opinion" with

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

regard to the subdivisions in the degrees of medicines.[182] Furthermore, in this introduction for the young, Gerard offered no practical advice, but a purely theoretical discourse on the "diversifications" of treatments, the "observations" of concepts, and the "considerations of opinions."[183] One opinion, namely that the effectiveness of a drug can extend itself from the first to the third degree, is confuted by Gerard on the basis of "the authorities and reason."[184] For the disproof of another opinion, held by "magister Alnardus" or Arnold de Villanova, Gerard adds experience to reason and authority. But that experience turns out to be purely hypothetical: Gerard claims, "experience proves that, if a fire at a certain distance warms something, a greater fire at the same distance will burn that something."[185] Hence, Gerard's Introductorium seems to mark a pinnacle in the rise of scholastic medicine at Montpellier. However, that this rise was neither uniform nor always as disastrous as it might seem from Gerard's treatise, has been demonstrated in the works of other authors and will be indicated further in the case of Bernard de Gordon.

A further aspect of the development of scholasticism was the conscious cultivation of authoritative tradition. This aspect is reflected not only in the increasing frequency

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of explicit references to the sources,[186] but also in the number of commentaries and translations. It is worth noting, in this regard, that the majority of Latin translations and commentaries on medical works, produced at Montpellier, date from after 1280. Especially the commentaries deserve far more attention than they can receive in the framework of our present study. It should be noted, moreover, that the distinction between original compositions and commentaries is not always very clear. Thus, many of the commentaries offer not only faithful glosses on the authorities, but also frequent references to the personal opinions and experiences of the commentator himself. On the other hand, some of the so-called original treatises were little more than collections of traditional views and excerpts from other works. It should be stressed, nevertheless, that the original treatises outnumbered the commentaries composed at Montpellier. In surveying the commentaries we may also consider the translations since these, too, reflected contemporary interests. The works that were commented on or translated at Montpellier may be grouped in four categories, according to the specific part of the medical tradition which they represent. In keeping

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

with the grouping that was used in the preceding chapter with regard to the curriculum, the categories comprise, respectively, the Hippocratic, Galenic, Salernitan or Constantinian, and post-Constantinian Arabic writings.[187]

The Hippocratic tradition is strongly represented at Montpellier by the commentaries on works of the physician of Cos by Magister Cardinalis,[188] Arnold de Villanova,[189] Bernard de Gordon,[190] Petrus Borelli de Capitestagno,[191] Gerard de Solo,[192] and one G. de Montepessulano.[193] In all, some ten Hippocratic commentaries survive for the period between 1250 and 1350, namely five on the Aphorisms, four on the Regimen acutorum, and one on the Pronostica. To these may be added also Arnold de Villanova's translation of the Lex Hippocratica.[194] Besides the commentaries on Hippocrates, there appear to be six Montpellier commentaries on Galenic works. These comprise two on the Tegni, namely one by Magister Cardinalis[195] and one by an anonymous chancellor, Cancellarius[196]; two on the De malicia complexionis diverse, namely one by Arnold de Villanova[197] and one by Bernard de Engarra[198]; one, by Bernard de Gordon, on the De marasmo[199]; and one, by Johannes de Tornamira, on the De interioribus.[200] Here, again, might be added the translations, namely that by Arnold of Villanova

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of the De rigore,[201] and those by Armengaudus Blasius of the Cognitio propriorum defectuum and of the pseudo-Galenic Economica.[202]

While thus far in our survey of commentaries and translations, the Hippocratic and Galenic works have been set apart for the sake of clarity, it should be kept in mind that most of those works were also incorporated in the Salernitan heritage. The remaining writings of the canon of Constantinus Africanus' ars medica were commented on by such twelfth-century Montpellier physicians as Bernardus Provincialis and Gerardus Bituricensis.[203] However, the persistence of the Salernitan inspiration in the thirteenth and fourteenth centuries is also evidenced by some six commentaries. Three of these were on Johannitius' Isagoge in Tegni Galieni, namely one by Henricus de Guintonia,[204] one by Magister Cardinalis,[205] and one by Gerard de Solo.[206] There are, furthermore, two commentaries on the Antidotarium of Nicholas Salernitanus, namely one by Armengaudus Blasius,[207] and one by Stephanus Arlandi.[208] In addition, a commentary on Philaretus' De pulsibus was composed by Magister Cardinalis.[209] Further indication of the continued Salernitan inspiration may perhaps be

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

found in the fact that Arnold de Villanova probably edited the Regimen sanitatis Salernitanum,[210] while a similar regimen, called Flos medicine schole Salerne, has been ascribed to the Montpellier master Johannes de Mediolano.[211]

A final group to be considered is that of the Montpellier commentaries on and translations of Arabic works that were not available to Constantinus Africanus. This group comprises some eight commentaries and eight translations. The ninth book of Rasis' Ad Almansorem, which deals with the treatment of diseases, was the subject of a commentary by Johannes de Tornamira[212] and of another by Gerard de Solo.[213] Besides Rasis' Ad Almansorem, the only other Arabic work that appears to have been commented on at Montpellier was Avicenna's Canon medicine.[214] Furthermore, in view of the important place held by the Canon in the curricula and in the authors' references, it is rather surprising that no commentaries on this work may have been undertaken before the middle of the fourteenth century. For the earlier period we only have the Nota super libro Avicenne, attributed to Arnold de Villanova in one manuscript[215]; and a tract by Jordanus de Turre that begins, "Circa

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

capitulum de remediatione fluxus superflui sanguinis quod Avicenna docet,"[216] but that may be an excerpt from an original work by Jordanus. Around 1350, on the other hand, four commentaries were composed on Avicenna's discussion of fevers in the first fen of the Canon's fourth book.[217] Before 1300, however, two other works of Avicenna's were translated, namely the De viribus cordis by Arnold de Villanova in 1282,[218] and the Cantica (together with Averroes' commentary) by Armengaud Blasius in 1283.[219] Arnold, furthermore, also translated Costa ben Luca's De physicis ligaturis[220] and the De simplicibus medicinis, attributed to Albumasar.[221] Armengaud, Arnold's nephew, also translated two medical works by Maimonides.[222] Finally, another contemporary translator deserves mention, namely Simon Januensis, who translated two works on medicinal simples, one by Serapion and the other by Albucasis.[223]

The number of translations, however considerable, should not overshadow the fact that the commentaries on Arabic works (8) were outnumbered two to one by those on Hippocratic (10) and on Galenic (6) treatises. This ratio bears out the observation made with regard to the curriculum, in the preceding chapter, namely that Montpellier's role in the "Arabization" of medicine should

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

not be exaggerated, and that the prominence of the Hippocratic-Galenic tradition deserves to be emphasized.[224] Concerning the translations, on the other hand, it is interesting to note that some thirteen medical treatises were latinized, mostly from Hebrew, at Montpellier between 1280 and 1300. Ten of these translations were produced by Arnold de Villanova and Armengaud Blasius.[225]

In surveying the preceding spectrum of translations, commentaries, and original treatises on theoretical and practical medicine, one is struck by the frequency with which the name of Arnold de Villanova has appeared. Even without the possibly apocryphal writings, the range of works under his name reflects the amazing breadth of his interests. This wide range indicates the danger of one-sidedness inherent in the application of labels such as "scholastic" or "Arabist" to Arnold.[226] Moreover, the breadth of his interests, together with his talent for conceptualization and, paradoxically, his notorious penchant for magic and mysticism, make Arnold truly fascinating as a subject of more intensive examination. He cannot, however, be taken primarily as a representative of the Montpellier tradition, both because of the extraordinary nature of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

his career and because of the fact that he seldom remained in any one place for any length of time.[227] While similar observations might be made regarding other contemporary Montpellier authors, Bernard de Gordon is one individual master who may be considered an eminent and true representative of Montpellier's Medical University and of its academic tradition. In his career, works, and teaching, therefore, we may find reflected the characteristics of that tradition, such as its diversity, its balance between theory and practice, and its solid Hippocratic-Galenic foundation.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NOTES TO CHAPTER THREE

1. While there is no doubt about Ramon's teaching in Montpellier or about his affiliation with the Friars Minor, I have not found his status defined exactly, either in Wickersheimer, Dictionnaire, II, 676-677; or in Sarton, Introduction, II, 900-914; or in Thorndike, Magic, II, 862-873. However, since Ramon was married and since he professed only as a Franciscan tertiary in 1295, it seems less likely that he would have taught in the Franciscan school.
2. See Sarton, Introduction, II, 909. For MSS, see TK index 1853-1855.
3. Cartulaire, No. 68. See also chapter II above.
4. Cartulaire, No. 65.
5. "...in jure canonico et civili, necnon et in medicina et artibus, examinari possint ibidem et in eisdem Facultatibus dumtaxat titulo magisterii decorari...," ibid., No. 20.
6. Yves Dossat, "L'Université de Toulouse, Raymond VII, les capitouls et le roi," in Les Universités du Languedoc au XIIIe siècle (Toulouse, 1970), p. 67. Guillelmus wrote a Speculum iudiciale (1271, whence the sobriquet Speculator), as well as the Rationale

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

divinorum officiorum (1286), and a Repertorium iuris canonici (or Breviarium aureum); see Sarton, Introduction, II, 1127-1128.

7. In 1292 bishop Berengar of Maguelone approved a change in the form of the doctoral examinations, without prejudice to Pontius de Homeliaco, who was to be examined for the promotion "ad doctoratus honorem," Cartulaire, No. 22.

8. It was apparently in the 1330s that the first significant writings of jurisprudence were composed at Montpellier such as the Consilia and the lectures on the Infortiatum (section II of Justinian's Pandects) of Oldrado da Ponte (Sarton, Introduction, III, 981-982); the Practica aurea of Pierre Jacme (Henri Gilles, "L'Enseignement du droit en Languedoc au XIIIe siècle," in Universités du Languedoc, p. 214); and, perhaps, the Breviarium (summary of Justinian's Codex, books I to IX) and the Lectura (a commentary on Justinian's Institutiones) of Jean Faure (see Sarton, Introduction, III, 989-990).

9. See chapter I, n. 10 above.

10. See Cartulaire, Appendix, No. 4.

11. Cartulaire, No. 22.

12. See Jean Segondy, "Le pape Urbain V, insigne bienfaiteur de l'Université de Montpellier," Monspeliensis Hippocrates,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

XXIII (1964), 7-13.

13. See Germain, Introduction, Cartulaire, p. 13.

14. Rashdall, Universities, II, 133.

15. Rather than to the Carthusians, as stated in Rashdall, ibid.

16. "...damus et concedimus...totum illum locum...in quo Judei Montispessulani sepeliri solebant, ad faciendum et construendum ibidem studium Theologie, ad usum vestri ordinis monachorum et aliorum qui in dicto studio scientiam addiscere Sacrarum volent Scripturarum...," Cartulaire, No. 10.

17. Ibid., No. 11. From other loci in the Cartulaire, however, it seems possible that "literary science" referred to book learning in general.

18. Introduction, Cartulaire, p. 81.

19. In 1292, the former Dominican Raimond de Mevouillon, then archbishop of Embrun, wrote to the professor of biblical studies at Montpellier, "J'ai souvent désiré que le germe de la langue hébraïque, semé dans le jardin de mon coeur par l'enseignement zélé de fr. Raimond Martin, put fructifier...": cited by Paul Amargier, "Prêcheurs et mentalité universitaire dans la province de Provence au XIIIe siècle," in Universités du Languedoc, p. 138.

20. See Etienne Delaruelle, "Théologie et médecine à

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Montpellier," in Universités, p. 132.

21. Amargier, "Prêcheurs," p. 132.
22. Marie-Humbert Vicaire, "Théologie à l'Université de Toulouse," in Universités, p. 171. See also Jacques Le Goff, "Extrait des discussions," ibid., p. 309.
23. Delaruelle, "Théologie," p. 230.
24. "Il semble que ce soit plutôt autour de studium de Montpellier qu'ait cristallisée cette école 'thomiste' primitive, si l'on peut risquer l'expression, le studium toulousain gardant plus de réserve...," Amargier, "Prêcheurs," p. 131.
25. See Amargier, ibid., pp. 130-131. Also Vicaire, "Théologie," ibid., p. 163; and Sarton, Introduction, II, 989-990. Also Stuart Martin, ed., Bernardi Trilliae Quaestiones de Cognitione animae separatae a Corpore, a critical ed. of the Latin text with an intro. and notes (Toronto, 1965).
26. Etienne Delaruelle, "Extrait des discussions," in Universités, p. 310.
27. See Sarton, Introduction, III, 531; and Histoire Littéraire, XXXVI (1927), 295-305, 647-652.
28. See chapter I above.
29. See chapter I, n. 22. However, Delaruelle asserts that Alain had "lu en théologie" in the Montpellier schools:

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"Théologie," p. 231.

30. Delaruelle, "Théologie," p. 231. However, see chapter I, n. 23 above.

31. See R. Bossuat, ed., Introduction to Anticlaudianus de Antirufino (Paris, 1955), p. 43.

32. See L.J. Paetow, The Arts Course at Mediaeval Universities, with Special Reference to Grammar and Rhetoric (Urbana, 1910), pp. 90-91.

33. "...magistris et scolaribus in grammatica et logica... Ut nullus...in grammaticis vel dyalecticis regat...," Cartulaire, No. 6.

34. See Sarton, Introduction, II, 992; for MSS, see TK, index 1734. The Compotus manualis was ed. by D.E. Smith (Paris, 1928).

35. For extensive bibliographical references, see Sarton, Introduction, II, 993-994; see also Thorndike, Magic, II, 437, note. For MSS see TK, index, 1904. The Tractatus quadrantis was ed. by Paul Tannery, "Le traité du quadrant de maître Robert Anglès," in Notices et extraits des manuscrits de la bibliothèque nationale et autres bibliothèques, XXXV (1897), 561-640.

36. For MSS see TK 37, and 960.

37. See Histoire Littéraire, XXXV (1921), 624-626; and see Paul Meyer, "Traités en vers provençaux sur l'astrologie

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

et la géomancie," Romania, XXVI (1897), 236-237.

38. See Sarton, Introduction, II, 847-850; and Moritz Steinschneider, Die hebraeischen Uebersetzungen des Mittelalter und die Juden als Dolmetscher, reprint (Graz, 1956), index.

39. See Sarton, Introduction, II, 885.

40. Ibid., 850-853.

41. Ibid., II, 851. This translation was ed. by J. Millas-Vallicrosa (Barcelona, 1933). See also Thorndike, Magic, III, 201; and Emmanuel Poulle, "Un instrument astronomique dans l'occident latin, la 'saphea'," Studii Medioevali, X (1970), 1, 491-510.

42. I have examined Paris MS Bibliothèque Nationale Latin 7295A, 14th c., fols. 35r-40v; incipit, "Solis instrumentum sic faciemus..." (TK 1518). The text consists mainly of captions on the various diagrams and tables. Desinit, "et sic completum est opus nostrum ad peticionem venerabilis magistri B. de Gordonio doctoris excellentissimi in arte medicine in Monte Pessulano. Explicit de armillis Profacii."

43. Profatius revised the treatise in 1301, according to TK 344, where three early manuscripts are cited. Another early MS, however, which I have examined, gives

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

1293 as the date of the revision: Bruges 523, 13-14th c., fols. 46r-62r, incipit, "Quoniam conceditur opus istius instrumenti," (TK gives, erroneously, in 338: "ff. 53v-(64r)" and as incipit, "Cum sciveris mensem romanum et diem eius..."). Fol. 53r, "Explicit compositio et verificatio quadrantis magistri Profatii Judei Marciliensis editi in Montepessulano a.D. 1293," after which follows (fols. 53v-62r) a description of the use of the instrument. This seems to be the revision by Petrus de Sancto Audomaro, cited in TK 1267. Profatius' treatise was edited by Boffito e Melzi d'Eril, Le Quadrante d'Israele di Jacob ben Machir ben Tibbon (Profacio) (Florence, 1922).

It should be added here that the quadrant, which became "vetus" or was superseded by Profatius' treatise, had been described also at Montpellier, around 1275, by Robertus Anglicus: see n. 35 above.

44. For the date (1290) see Lynn Thorndike, "The Date of the Translation by Ermengaud Blasius of the Work on the Quadrant by Profatius Judaeus," Isis, LXXII (1937), 306-309. For more on Armengaud, see below.

45. James Weisheipl, "Classification of the Sciences in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Medieval Thought," Mediaeval Studies, XXVII (1965), 173.

46. Sarton, Introduction, II, 850. For the Canons to Profacius' Almanach, see Thorndike, Magic, III, 694-698.

47. TK 1523, "Sphera est corpus rotundum... (Costa ben Luca?), Practica spere solide cum utilitatibus suis, tr 1301, by Stephanus Arnaldi (Arlandi?) from the Hebrew tr of Profatius Judeus"; here, and in TK 642, 1523, and 1524, four MSS are listed. For more on Stephanus, see below.

48. See TK 1524, item 3.

49. Thorndike, Magic, III, 204, n. 47: "BNna 625, 14c, fols. 13v-15va, 'Explicit tractatus Profatii Judei de aspectibus lune ad alios planetas translatus in preclaro studio montis pessulani de hebraico in latinum anno domini 1312.' The work opens, 'Sciendum quod planetarum quidam sunt benevoli...'. In TK 569 and 1398 are listed seven manuscripts, of which I have consulted one, Bruges 523, 14th c., fols. 26vb-28va; this is a truly astrological work, in which the planets are divided into favorable, unfavorable, and indifferent ones, and the only authority mentioned

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

is Messahala (fol. 27ra).

50. See Wickersheimer, Dictionnaire, I, 76 and II, 620. For MSS see TK 187; for other 13th-c. translations, see TK 406 and 751.

51. See chapter II above.

52. TK 424 lists one MS as by "Guilhelmus Anglus (William Grisaunt)." Wickersheimer, however, suggests that the works of Guillelmus Anglus, who was probably not at Montpellier, have erroneously been ascribed to Guillelmus Grisaunt, who came to Montpellier from Oxford ca. 1299: Dictionnaire, I, 231 and 245.

53. For MSS see TK 1300. This work is discussed by Thorndike, Magic, II, 871-872. TK 330 also lists a De astronomia, composed by Lull in 1297, and discussed by Thorndike, Magic, II, 868-869.

54. For MSS see TK 1269. The same work is also known as Introductio ad judicia astrologie quantum pertinet ad medicum in the MSS (see TK 221), and as De astronomia in the pr. editions of Arnold's Opera (Lyons, 1504, fols. 383r-386v; and Lyons, 1509, fols. 292v-295v).

55. See chapter V below.

56. See the enlightening article by Michael McVaugh, "Quantified Medical Theory and Practice at Fourteenth-Century Montpellier," Bulletin of the History of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Medicine, XLIII (1969), 397-413.

57. See TK 860. An Irish version was ed. by Shawn Sheahan (Washington, 1938). For more on Gualterus, see below.

58. See TK 558 and 409. Also see Sarton, Introduction, II, 909.

59. Discussed in McVaugh, "Quantified Medical Theory," pp. 398-402. For MSS see TK 691 and 255.

60. See chapter V below.

61. McVaugh, "Quantified Medical Theory," p. 407. For MSS see TK 1371. It may be noted, however, that Gerard de Solo apparently composed a treatise De gradibus as late as 1371: see Wickersheimer, Dictionnaire, I, 186.

62. See the richly documented study by Michael McVaugh, "Theriac at Montpellier 1285-1325 (with an edition of the 'Questiones de tyriaca' of William of Brescia)," Sudhoffs Archiv, LVI (1972), 113-144. McVaugh notes that Galen's discussions of theriac became known only later in the 14th century, through the translations of Niccolò da Reggio: ibid., p. 113.

63. Ibid., pp. 119-122. For MSS see TK 1568.

64. "Incipit tractatus de tyriaca secundum intentionem Averrois et aliorum...," ed. Julius Pagel, Pharmaceutische

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Post, XXVII (1894), 220.

65. See chapter V below, where also will be found a dating and an evaluation of Bernard's De tyriaca that differ somewhat from those proposed by McVaugh, "Theriac," pp. 116-119.

66. Examined and ed. by McVaugh, "Theriac," pp. 124-144. For MSS see TK 1214. There is, however, no evidence for Guillelmus' direct connection with Montpellier. He had taught logic and philosophy at Padua, became a master of medicine at Bologna under Taddeo Alderotti, and appears to have been at Paris before becoming papal physician in 1298. See Wickersheimer, Dictionnaire, I, 230.

67. See chapter II above, n. 67.

68. McVaugh, "Theriac," pp. 125-128.

69. See Thomas S. Hall, "Life, Death and the Radical Moisture," Clio Medica, VI (1971), 2-23.

70. For MSS see TK 413 and 415. The Montpellier treatment of the topic is discussed by Michael McVaugh, "The Humidum Radicale in Thirteenth-Century Medicine," typescript kindly sent to me by the author. See also chapter V below.

71. See chapter V below.

72. Of the Libellus de impregnatione (not in TK) I have found Paris MS Bibliothèque Nationale 6957, 15th c.,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

fols. 55v-57v: "Incipit libellus de impregnatione editus a Gordonio. Quia sterilitas causis accidit, ideo ab ipsis inchoemus..." Desinit, "et fiant pessaria cum lana etc." It is essentially identical with the Tractatus Bernardi de Gordonio de sterilitate et eius cura (not in TK as by Bernard), in Vatican MS Palatine 1083, a. 1458, fols.320r-321v, of which Professor Kibre has a photostat.

73. See TK 849. Probably spurious are the following works ascribed to Arnold: De coitu (TK 272), Contra impedimentum conceptionis (TK 1597), De improbatione maleficiorum (TK 801 and 1357) or Remedia contra maleficia (TK 1542), and De sterilitate (TK 1116 and 1379); see Juan Arellano Paniagua, Estudios y Notas sobre Arnau de Vilanova (Madrid, 1963), pp. 42-43.

74. Cartulaire, No. 61.

75. Part II was ed. and discussed by Carl Arlt, Neuer Beitrag zur Geschichte der medizinischen Schule von Montpellier (Berlin diss., 1902) and by Julius Pagel, "Raymundus de Moleriis und seine Schrift de Impedimentis Conceptionis," Janus, VIII (1903), 530-537.

76. Thus, after 1350, we still have Johannes Jacobi's De sterilitate (see TK 1506 and Wickersheimer, Dictionnaire, II, 1506) and Petrus de Nadillis' De impregnatione

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

mulierum, which I have examined in Paris MS Bibliothèque Nationale 7066, 15th c., fols.13r-20v (see TK 741 and Wickersheimer, Dictionnaire, II, 652).

77. See TK 1175 where, however, no MSS are listed.

78. Lilium II.20.

79. See TK 1674 and Wickersheimer, Dictionnaire, I, 185-186.

80. Cartulaire, No. 5. Henry wrote a treatise De flebotomia (TK 1142) and another De urinis (TK 75).

81. See Wickersheimer, Dictionnaire, I, 170. Gualterus composed a treatise De febribus (TK 493), one De pulsibus (TK 291), and one on uroscopy, Compendium urinarum, which became quite popular, as the number of MSS indicates (TK,passim).

82. See chapter V below.

83. Cartulaire, No. 35. The treatise of Stephanus on fevers appears not to be extant, and that on phlebotomy has also been attributed to Arnold of Villanova; see Wickersheimer, Dictionnaire, I, 135.

84. Cartulaire, Nos. 30-39. Jordanus composed a Compendium de urinis (TK 224 and 1437) and has been credited with a treatise De febribus (Wickersheimer, Dictionnaire, II, 514).

85. The only two Montpellier treatises on pulses which I

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

have found are that of Gualterus Agulinus (n.81 above) and that of Bernard de Gordon (see chapter V below).

86. While the term "phlebotomia" would seem to refer to the procedure of bloodletting itself, that procedure was usually left to barbers or surgeons, and treatises on phlebotomy dealt not only with the proper times for bleeding but also with the examination of the blood.

87. See chapter II above, n.46.

88. "Theorica dividitur in tres partes, scilicet in scientiam rerum naturalium (viz. elementa, complexiones, humores, membra, virtutes, actiones, spiritus); rerum non naturalium (viz.aer circumdans corpus humanum, motus et quies, cibus et potus, somnus et vigilia, inanitio et continentia, anime accidentia); et rerum que sunt extra naturam (viz.morbus, morbi cause, significationum morbi accidentia)," Costantino L'Africano, L'Arte Universale della Medicina (Pantegni), ed. Malato and Martini (Rome, 1961), pp. 44-46.

89. "Practica dividitur in duo, scilicet in custodiam sanitatis corporum in sanitate instabilium, corporum ad sanitatem iam transeuntium, fragilium et infantium, senum..., et in curationem egritudinis cum potione et dieta vel cum chirurgia, carne incidenda, scindenda, suenda, coquenda, et ossium fractura et ad locum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

proprium si exierint reducenda," ibid.

90. Ed. with notes by Paul Diepgen (Leipzig, 1911). See also TK 724, 1480, and 1483; and Wickersheimer, Dictionnaire, I, 170-172.

91. See TK 724, 1429, and index, s.v. Rogerina. See also Wickersheimer, Dictionnaire, II, 720-721.

92. See TK 593; also Wickersheimer, Dictionnaire, II, 694-698 and II, 795.

93. See TK 963.

94. See TK 370, 693, 773; and 671, 826. Paniagua also mentions, as identical with this work, a Practica ad Papam Clementem, found in Erfurt MS Amplonianum Q.230: Estudios y Notas, p. 18.

95. See chapter V below.

96. "...intendo ad utilitatem humilium pertractare, librum scilicet de practica compilare. Et quia humilibus scribo, ex hoc superbi abiecti sunt...," Lilium, prologue, in British Museum MS Harley 3698, fol.1r. For detailed discussions of difficult problems, Bernard consistently referred his readers to more advanced treatises.

97. Recepte quas fecit filio suo eunti ad practicam, anno 1318: see Wickersheimer, Dictionnaire, II, 514; also TK 522.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

98. Incipit informacio quam fecit magister Guillelmus de Biterris scolaribus suis, "Quia tempus eundi ad practicam et vos scolares novissimi...," in Paris MS Bibliothèque Nationale 7061, 15th c., fols.125r-126r, of which I have a photostat; also see TK 1232.

For Guillelmus, see Cartulaire, Nos. 39 and 40; and Wickersheimer, Dictionnaire, I, 244.

99. See TK 1344. I have a photostat of Paris MS Bibliothèque Nationale 7062, a. 1428, fols.1r-31v.

100. "Explicit quedam parva practica bona et utilis edita a magistro Johanne de Tornamira, quam fecit pro quodam baccalario eunti ad practicam," in Paris MS Bibliothèque Nationale 7061, 15th c., fol.5v, which I have examined.

For Tournemire, who is mentioned in the Cartulaire, No. 123 (1364), see also Wickersheimer, Dictionnaire, II, 494; and Pierre Pansier, "Jean de Tournemire; Etude bio-bibliographique," Monspeliensis Hippocrates, XLII (1968), 5-12.

101. See Appendix II below.

102. See TK 313, item 13. See also TK 731, item 11, for a regimen by a "Bachelor of Montpellier."

103. This was the fourth treatise in Bernard's Liber de conservacione vite humane, for which see chapter V below.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

104. See TK 1354.

105. See Wickersheimer, Dictionnaire, I, 94.

106. See TK 856.

107. Pr. in Opera (Lyons, 1509), fol.130r. Not in TK, unless it is identical with the Regimen sanitatis regis Aragonie et exercitus eius, listed in TK 540 (but see following note).

108. The regimen for Pope Boniface is listed as Contra calculum in TK 1438. For the regimen for James of Aragon, see TK 540. For both regimens, see also Paniagua, Estudios y notas, pp. 74-77.

109. See Wickersheimer, Dictionnaire, I, 367, where it is suggested that the king in question was probably Charles-Robert (r.1302-1342).

110. Namely, G. Marcerii, Gerardus de Solo, Jordanus de Turre, and Raymundus de Moleriis. The regimen was ed. by Karl Sudhoff, Archiv für Geschichte der Medizin, XIV (1923), 184-186.

111. See n. 108 above; also Wickersheimer, Dictionnaire, I, 45-46 and notes.

112. Sudhoff, Archiv, XIV (1923), 184.

113. De morbis oculorum, Curatio apoplexie, and Cura pro leprosis: see TK 698, 1405 and 380, and 361, respectively. See also Wickersheimer, Dictionnaire, I, 94.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

114. Arnold de Villanova, De podagra: see TK 251 and 1345.

115. Jordanus de Turre, Regimen ad curandum epilepticum: see Wickersheimer, Dictionnaire, II, 514.

116. Jordanus de Turre, Cura hydropisis: see TK 361.

117. Arnold de Villanova, Contra catarrhum: see TK 1452.

118. Petrus Borelli de Capitestagno, Cura contra dispositionem ad paralisim: ed. Ernest Wickersheimer, Bulletin de la Société française d'histoire de la médecine, XVIII (1924), 103-104.

119. Stephanus Arlandi, Recepta contra surditatem: see Lynn Thorndike, Annals of Medical History, VIII (1936), 144.

120. Berengar de Thumba, Regimen contra dolorem capitis in sexagenario: see Wickersheimer, Dictionnaire, I, 69.

121. Wickersheimer, Dictionnaire, II, 678.

122. See TK 808.

123. It is, however, possible that this was actually a translation of Costa ben Luca's Dietarium: see Wickersheimer, Dictionnaire, I, 135.

124. See TK 1536. Petrus is mentioned in the Cartulaire, No. 5 (1240).

125. Ed. Pierre Pansier, Janus, VIII (1903), 20-25, 65-69, 141-145.

126. Ed. J.W. Johnsson, Bulletin de la Société française d'histoire de la médecine, X (1911), 269-290. See also

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

TK, index; and Wickersheimer, Dictionnaire, II, 575.

127. See Wickersheimer, Dictionnaire, II, 620.

128. Ibid., II, 514.

129. Ibid., I, 135.

130. Thus, the De sirupis of Petrus Lucratoris (see TK 233); the Emplastrum of Anselmus of Genoa (see TK 1599 and Wickersheimer, Dictionnaire, I, 29); and the Tractatus clysterium of Jordanus de Turre (see Wickersheimer, Dictionnaire, II, 513).

131. Also known as the Practica medicine or Giraldina, and also attributed to Gerard of Cremona: see TK 326-327. I have examined Paris MS Bibliothèque Nationale 7061, 15th c., fols.47r-87v.

132. See chapter V below. Also Arnold de Villanova composed a Regimen acutorum: see TK 475 and 947.

133. For some plague tracts composed at Montpellier, Paris, and elsewhere, see the selective but well documented study by Anna M. Campbell, The Black Death and Men of Learning (New York, 1931).

134. Ibid., pp. 30-31 and passim.

135. Ibid., pp. 21-22 and passim.

136. Ibid., p. 18 and passim. Ed. Karl Sudhoff, Archiv für Geschichte der Medizin, III (1909), 222-226.

137. Incipit, "Ego Alphontius Cordubensis magister artium

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

liberalium et artis medicine..."; desinit, "Scriptum in montis [sic] pessulano," ed. Sudhoff, p. 224 and p. 226.

138. After briefly indicating "quae pestilentia prima fuit naturalis," namely that it was caused by a moon eclipse and a bad conjunction, Alphonso then also blamed the pest on "artificium subtilissimum profundae iniquitatis inventae, quare consilium sapientum medicorum non proficit nec iuvat." After a passing warning against bad food and drink, "quae infici possunt et intoxicari ab aquis precipue non fluentibus" (an observation which reflects the popular preference for running water), the author lists the traditional factotum remedies, such as theriacs, suffumigations, and complicated compounds: ed. Sudhoff, pp. 224-225.

139. Ed. Karl Sudhoff, Archiv für Geschichte der Medizin, V (1912), 36-39.

140. See TK 45, item 1; and ibid., 220, item 6. Somewhat later, pest tracts were composed by the University members Johannes de Tornamira (TK, index) and Johannes Jacobi (TK, index).

141. See Karl Sudhoff, "Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'schwarzen Todes' 1348," Archiv für Geschichte der Medizin, IV (1910), 191-222,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

389-424; and V (1911), 36-87.

142. See n.89 above.

143. See chapter V below, on the place of surgery in Bernard de Gordon's Lilium medicine.

144. "The teaching and practice of surgery was permitted to the faculty of Montpellier but forbidden immediately" after the popes' return to Rome in 1376; Sarton, Introduction, III, 272; Sarton refers to Forgue (see following note), rather than to any primary source.

"The fact that surgery was practiced by physicians shows the superior position of the art as compared with the position it held at Paris," Rashdall, Universities, II, 136, n.2.

145. Jean Astruc, Mémoires pour servir à l'histoire de la Faculté de Médecine de Montpellier (Paris, 1767), passim.

Emile Forgue, Sept siècles de chirurgie à la Faculté de Médecine de Montpellier (Montpellier, 1920).

146. "A cette phase première de l'Ecole libre, l'enseignement est, d'ailleurs, commun à la médecine et à la chirurgie: c'est encore un trait essentiel à souligner. Ce n'est que vers la fin du XIVe siècle que se prononce la séparation définitive entre les deux enseignements; et il est à considérer que l'Ecole de Montpellier,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

marquant ainsi, dès ses débuts, sa conception élevée de la formation chirurgicale, a maintenu, plus longtemps que celle de Paris, l'union nécessaire de ces deux branches d'un même art," Forgue, Sept siècles, p. 6.

147. Guillelmus' Chirurgia and the gloss of an anonymous student (Notulae cirurgiae) were edited by Sudhoff in Studien zur Geschichte der Medizin, XII (1918), 297-384.

148. "Scolares, qui post proponunt operari, libenter presentes esse debent, [ut] ipsi discant operari, non solum audiendo sed etiam videndo," an anonymous student of Guillelmus, cited by Karl Sudhoff, "Gedanken über die Ausbildung chirurgischer Operateure an den Hochschulen im 13. Jahrhundert," Mitteilungen zur Geschichte der Medizin, XVII (1918), 294.

149. According to the gloss by his unknown student, Guillelmus lectured during the university vacations, "bis saltem in anno, in Festivitate Nativitatis Domini nostri et in Pascha. Cum alii legere desistebant, ille incepit," Notulae cirurgiae, ed. Sudhoff, Studien, XII (1918), 312.

One MS described Guillelmus merely as "Montis Pessulani, uxoratus, preterea litteratus, habundans

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

mobilibus et immobilibus," according to Wickersheimer, Dictionnaire, I, 235, where the specific MS is not identified.

150. "...exceptis cirurgicis, quos huic nolumus examini subiacere," Cartulaire, No. 4. In 1399, however, King Charles VI was to speak of "facultatibus et scienciis medicine et cirurgie," ibid., No. 194. It is, nevertheless, dangerous to interpret Charles' terms too freely, as is done by one author who, from the same document's reference to "Christianis et Judeis," infers that "evidently many of the surgeons at Montpellier were Jews," Vern Bullough, "The Teaching of Surgery at the University of Montpellier in the Thirteenth Century," Journal of the History of Medicine, XV (1960), 522.

151. See especially Forgue, Sept siècles, p. 8.

152. Julius Pagel edited first Part One, the Anathomia (Berlin, 1889), and then the whole Chirurgia (Berlin, 1892). The Chirurgia was also translated into French by E. Nicaise (Paris, 1893).

153. For example, Henri asserted that surgery, "salva reverentia medicorum, a nobis cyrurgicis et omnibus illiteratis reputatur certior et eligibilior, nobilior, securior, perfectior, magis necessaria...," Chirurgia,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ed. Pagel, p. 79. Also, surgeons "sunt paucissimi litterati," ibid., p. 333.

154. For Henri's career, see Wickersheimer, Dictionnaire, I, 282-283.

155. For example, Forgue, Sept siècles, pp. 6 and 8. The worst example, perhaps, of such exaggeration is found in a reference by Alexandre Aimes to Nicaise, who edited Guy's Grande Chirurgie (Paris, 1890). Aimes asserted that "le séjour à Montpellier a été fructueux pour Guy parce que cette ville était très favorisée par sa situation: alors que le reste de l'Europe était plongé dans la barbarie [sic!], le voisinage de l'Espagne l'avait fait profiter de la civilisation des arabes...," Alexandre Aimes, "Un illustre maître montpelliérain: Guy de Chauliac, le père de la chirurgie moderne," Monspeliensis Hippocrates, V (1962), 7.

156. For details of Guy's career, see Nicaise, introd., La Grande Chirurgie; also Wickersheimer, Dictionnaire, I, 214; More recent bibliography in the Dictionary of Scientific Biography, III (Baltimore, 1971), 218-219.

157. Michael McVaugh, "The Experimenta of Arnald of Villanova," The Journal of Medieval and Renaissance Studies,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

I (1971), 109.

158. Josef Pieper, Scholasticism: Personalities and Problems of Medieval Philosophy (New York, 1964), p. 36. It may be noted that, until now, the serious studies of Scholasticism have been limited to its place in philosophy and theology.

159. The analogy and connection between medicine and theology are indicated by Etienne Delaruelle, "Théologie et médecine à Montpellier," in Universités du Languedoc, pp. 230-241. See also Paul Diepgen, Ueber den Einflusz der autoritativen Theologie auf die Medizin des Mittelalters (Wiesbaden, 1958).

160. David Knowles, The Evolution of Medieval Thought (New York, 1964), p. 87.

161. Pieper, Scholasticism, p. 23 and p. 38.

162. For Aristotelian references and terminology, see chapter VI below. Aristotelian theses, discussed at Montpellier, related to sexual differentiation, the location of the sensus communis, the ages of man, and so on. See chapter VI below for some examples.

163. The strengthening of Galenism is indicated in the Montpellier curriculum (see chapter II above), in the commentaries (discussed at the end of the present chapter), and in Bernard de Gordon's writings (see

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

chapter VI below).

164. See, for example, chapter VI below, on Bernard de Gordon's authorities.

165. For Petrus Hispanus or Juliani, later Pope John XXI (d. 1277), who wrote commentaries on Aristotle's De anima, on the De animalibus, and on the Physionomia, see Sarton, Introduction, II, 889-892.

166. For Peter of Abano (d. 1316), who translated and wrote a commentary on the Liber problematum Aristotelis, and who was primarily associated with Padua, see especially Nancy J. Siraisi, "The Expositio Problematum Aristotelis of Peter of Abano," Isis, LXI (1970), 321-329.

167. For Bartholomew of Bruges (d. 1330), who may have received the degree in medicine at Montpellier, and who wrote commentaries on the Aristotelian Yconomica, on the De inundatione Nili, and on the Physica, see Sarton, Introduction, III, 885.

168. Thus we find that, beside the Canon medicine, the only two Avicennan works that figure prominently in the Montpellier corpus, were primarily medical: namely the translation of Avicenna's De viribus cordis by Arnold of Villanova, and the translation of Avicenna's Cantica with Averroes' commentary, by

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Arnold's nephew Armengaud Blasius.

169. For example, in his Aphorismi de gradibus Arnold inveighed against Averroes, who "in omnibus erravit in quibus invectus est contra Galienum," Opera (Lyons, 1509), fol.120v.

Arnold's role in the development of scholastic medicine is emphasized by Michael McVaugh, "The Experimenta," p. 109; and also in the same author's article on Arnold in the Dictionary of Scientific Biography, I (New York , 1970), 289-291. It is only fair to note, however, that Professor McVaugh's careful evaluation of Arnold's position cannot be done justice in our brief discussion here.

170. "Et propter hoc Parisienses at ultramontani medici plurimum student, ut habeant scientiam de Universali, non curantes habere particulares cognitiones et experimenta. Memini enim vidisse quendam maximum in artibus, naturalem, logicum, et theoricum optimum. In medicina tamen unum clysterem seu aliquam particularem curationem non novit ordinare, et vix ephemeram sciebat curare," Breviarium medicine, in Opera (Lyons, 1509), fol.156v.

It is, however, possible that the Breviarium was not

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

actually by Arnold: see Paniagua, Estudios, p. 42.

171. "Preterea non in scripturis student, in quibus ars traditur Galeni et Hippocratis, a quibus medicinam divina concessione veraciter et perfecte novimus esse revelatam: immo potius in chartapellis et summis, quae potissime magni voluminis sunt sicut in historiis Gilberti, fabulis Pontii et Gualteri," Opera (Lyons, 1509), fol.205r.

172. Paul Diepgen, ed., Introduction to Gualterus Agulinus, Summa medicinalis (Leipzig, 1911), pp. 6-12. There is no direct evidence for Gautier Agilon's connection with Montpellier, but strong indications may be found in the fact that a scribe of the end of the thirteenth century irreverently called him an old imbecile of Montpellier, "viech daise de Montpellier," (Dosis medicinarum: in Paris MS Bibliothèque Nationale 16191, fol.207v); and that Johannes de Tornamira placed him among "our modern Montpellierains," ("nostri montispedentes moderni"). Gualterus can be dated around the middle of the 13th century, because he frequently cited Gilles de Corbeil (d.ca. 1220), and is cited in turn in the Thesaurus pauperum of Petrus Hispanus (ca. 1270). See P. Pansier, "Les maîtres de la Faculté de médecine de Montpellier au Moyen Age," Janus, IX (1904), 505-506, and Wickersheimer,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Dictionnaire, I, 170.

173. "Patet, quod ad curationem egritudinum necessaria est cognitio earum... Secundum Avicennam, necessaria est [egritudinis] cognitio per cognitionem causarum et principiorum ipsius," Summa, ed. Diepgen, p. 84.

174. Summa, ed. Diepgen, p. 84 and passim.

175. This organization, which deviated from the traditional head-to-toe order, was perhaps inspired by the Salernitan physician Maurus, according to Diepgen, ed., Summa, pp. 14-15.

176. Cartulaire, Nos. 39 and 40, where Gullielmus is called "clericus coniugatus." See also Wickersheimer, Dictionnaire, I, 244.

177. Informatio quam fecit magister Guillelmus de Biterris scolaribus suis, in Paris MS Bibliothèque Nationale 7061, fol.125r.

178. For a closer parallel with Gualterus' Summa, one should consider Bernard de Gordon's Lilium which is discussed in chapters V and VI below.

179. "In ecclesia Vaurensi, Geraldo de Solo, licentiato in artibus, et magistro in medicina, actu in Montepessulano studio legente," indult of Pope Benedict XII, cited by Pansier, "Les maîtres," p. 544. A university document of the same year (1335) calls him Guiraudus de Solo, Cartulaire, No. 61.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

180. I have examined the Paris MS Bibliothèque Nationale 7062, a. 1428, of which I have a photocopy. I also have consulted an early pr. ed. of Gerard's Opera (Lyons, 1504) at the New York Academy of Medicine. The notes hereafter refer to the MS.

181. These numbers of references may be compared with those in a similar work, Bernard de Gordon's Lilium: see chapter V below.

182. In MS BN 7062, fols.12r-19v, passim; see also n. 185 below.

183. For example, "Regimen curativum diversificatur secundum diversitates curandorum morborum," in MS BN 7062,fol.1v; also the "virtus corporis" determines the treatment: here Gerard proceeds from the truism that "consideranda in virtute sunt eius fortitudo et debilitas," ibid., fol. 4r; "de gradibus de quibus sunt due opiniones," ibid., fol.10r, etc.

184. "Sed ista [opinio] non potest stare, quod declaro auctoritatibus et ratione," ibid., fol.19v.

185. "...quod experiencia, racione et auctoritate probatur. Experiencia fit si aliquis ignis in aliqua distancia calefiat aliquod maior ignis in eadem distancia ipsum comburet," ibid., fol.19r.

186. Again, see chapter VI below.

187. Of course, this grouping is somewhat arbitrary, but it

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

reflects that used with regard to the curriculum: see chapter II above.

188. Magister Cardinalis, Glosule supra librum aphorismorum Hippocratis: see TK 1704, 266, and 288; Glosule super prognostica Hippocratis: see TK 1497; and Scripta supra regimentum acutorum: see TK 1308. For more on Magister Cardinalis, see below.

189. Arnold de Villanova, Comm. in Hippocratis Aphorismum 'Vita brevis'; see TK 1034; Comm. in Hippocratis Aphorismum 'In morbis minus': see TK 664; and Compendium regiminis acutorum: see TK 475, 623, 939, and 947. TK also lists an Arnoldian Abbreviatio libri pronosticorum: TK 967.

190. For Bernard's De regimine acutorum and Compendium regiminis acutorum, see chapter V below.

191. Petrus Borelli de Capitestagno, Questiones super Ypocratis de regimine acutorum: see TK 500 and 1147.

192. Gerardus de Solo, Comm. in Aphorismos Hippocratis: see Sarton, Introduction, III, 877. Since Sarton asserts that no MSS are extant, this commentary may be identical with that in the following note.

193. G. de Montepessulano, Glose supra afforismos Ypocratis: see TK 268. Also see Wickersheimer, Dictionnaire, I, 160.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

194. This translation was completed in 1282, according to TK 855.

195. Magister Cardinalis, Glosule super Tegni Galieni: see TK 302.

196. Questiones super Tegni Galieni secundum Parisiensem cancellarium Montispessulani: see TK 1569.

197. See TK 758 and 1658.

198. Bernardus de Hangarra or Engarra, Dubitata supra libellum de mala complexione diversa: see TK 1652. This work may be identical with the Questiones listed in TK 1678, item 9. For this Bernard (fl. 1294) see Wickersheimer, Dictionnaire, I, 74 and 76.

199. See chapter V below.

200. See Wickersheimer, Dictionnaire, II, 494.

201. However, the translation of the De rigore is also attributed to Peter of Abano: see TK 1260.

202. For the tr. of the Yconomica, see TK 467 and 997; this tr. was ed. by Theodor Trotz (Leipzig diss., 1921).

For the tr. of the Cognitio (1299), see TK 748 and 1199.

203. Bernardus Provincialis, Comm. in Tabulas Salerni de virtutibus et operationibus remediorum simplicium: see TK 982, 1001, and 1369; ed. Salvatore Renzi, in Collectio Salernitana, V (Naples, 1859), 269-328.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Bernardus Provincialis, Comm. in Practicam Bartholomei Salernitani: see Wickersheimer, Dictionnaire, I, 78, where also further data are found on Bernard (fl.ca. 1150).

Gerardus Bituricensis, Comm. in Viaticum Constantini: see TK 161, 324-25. I have examined three Bruges MSS, namely 467, 13th c., fols.1ra-49vb; 359, 13-14th c., fols.246r-277va; and 466, 14th c., fols. 1-125ra. For some data on Gerard (probably 12th c.) see Wickersheimer, Dictionnaire, I, 203.

204. Summa or Medicinales questiones super Joh.Isagogii [sic]; see TK 1085; see also C.H. Talbot, Medicine in Medieval England (London, 1967), pp. 61-63.

205. Glose super Isagogen Johannitii; see TK 1605.

206. Comm. in Ysagogen Johannicii: see Wickersheimer, Dictionnaire, I, 186.

207. Tabula Antidotarii: see TK 736 (rather than 735, as in index).

208. Viridarium or Expositio Antidotarii Nicholai: see TK 1496; see also J. Blake, "Commentum super Nicolaum by Stephanus Arlandi: An Unnoticed Medical Incunabulum," Bulletin of the History of Medicine, XXV (1970), 480.

209. Glosule supra pulsum Philareti: see TK 1483. It may be noted that Magister Cardinalis composed six

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

commentaries on treatises of the ars medica. For this mysterious author, who deserves to be investigated further, see Cartulaire, No. 5; see also Wickersheimer, Dictionnaire, I, 94.

210. See Sarton, Introduction, II, 894.

211. See TK 96. The Flos was ed. by Renzi, Collectio Salernitana, V (Naples, 1859), 1-104.

212. Clarificatorium super nono Almansoris cum textu ipsius Rasis (1365): see TK 409 and 489.

213. Practica super nono Almansoris, see TK, index. I have examined Paris MS Bibliothèque Nationale 7062, a. 1428, fols.32r-261r, which is not listed in TK.

214. It may be noted, however, that a Flos lilii, attributed to Arnold de Villanova, has also been attributed to Rasis: see TK 540.

215. Cracow MS 2111, a.1372: see Wickersheimer, Dictionnaire, I, 49.

216. See TK 204.

217. Namely, Petrus Albi (or, Blanc), Recepte super quarto canone Avicenne de febribus: see TK 693; Gerard de Solo, Comm. supra primam fen quarti canonis Avicenne de febribus: see TK, index; Bernardus Alberti, Introductorium in practica pro provectis, theorica (or, recepte) super primam fen quarti canonis Avicenne: see TK, index, and Wickersheimer, Dictionnaire,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

I, 71; Johannes Jacobi, Recepte super quarto canone Avicenne de febribus: see TK 227.

218. See TK 273 and 1581.

219. See TK 727, 857, 1072, and 1076.

220. See TK 1200.

221. In 1282: see TK 801.

222. Namely, the Regimen egrorum et sanorum et specialiter de asmate, in 1294: see TK 750; and the De medicinis contra venena, at the command of Pope Clement V, in 1305 or 1307: see TK 750-51, and Wickersheimer, Dictionnaire, I, 40-41.

223. Namely, Serapion, Liber aggregatus in medicinis simplicibus: see TK, index; and Albucasis, Liber servitoris de preparacione medicinarum simplicium, see TK 446 and 1071.

Here may also be added an earlier mentioned tr. of Avenzoar's Regimen sanitatis: see n. 50 above.

224. One extraordinary Montpellier author, who has not been included in this chapter because he was evidently outside and even hostile to the Montpellier academic tradition, is the Dominican friar, Nicholas of Poland, who composed a pamphlet against medical learning and in defense of extreme empiricism. The very title of the tract betrays the author's position: Antipocras. Ed. Karl Sudhoff, Archiv für Geschichte der Medizin,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

IX (1916), 31-52.

225. In view of his activities as a translator, it seems ironic that, in 1289, Armengaud was granted the master's degree by the bishop of Maguelone, over the objections of the University: Cartulaire, No. 19. Moreover, the delegates of the Holy See in 1290 backed the University and severely reprimanded the bishop's officials for harassing the masters: Cartulaire, No. 20. Around 1299 Armengaud was physician to King James II of Aragon and Queen Blanche of Naples. See Ernest Renan, Histoire Littéraire, XXVIII (1881), 127-138, and Wickersheimer, Dictionnaire, I, 40-41; also Thorndike, Magic, II, passim. Thorndike uses a spelling that seems also to occur in the MSS, namely "Ermengard"; he also (Magic, II, 852, n.3) seems to confuse Armengaud Blasius with Saint Blasius (martyred in the early 4th c., feast on 3 February), until our own times a popular saint against throat and lung affections, such as the quinsy of Arnold de Villanova's Breviarium discussed here by Thorndike. For Saint Blasius, see Bibliotheca hagiographica latina antiquae et mediae aetatis (Brussels, 1949), 33.

226. On Arnold's "scholasticism" see above in this chapter. His "Arabism," on the other hand, was played down by

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Juan A. Paniagua, "L'arabisme à Montpellier dans l'oeuvre d'Arnau de Vilanova," Scalpel, CXVII (1964), 631-637.

227. There is a large and ever growing bibliography on the life as well as on the works of Arnold. For a brief survey of his hectic career, see Wickersheimer, Dictionnaire, I, 45-49.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CHAPTER FOUR

BERNARD DE GORDON AS REPRESENTATIVE OF MONTPELLIER: EARLY LIFE, EDUCATION, AND CAREER

In the preceding chapters a composite picture has been sketched of the Montpellier academic tradition embodied in the teaching in the schools, in the framework of the statutes, and in the authors and their writings. The skeletal outlines of this portrait will now be made flesh and blood in the person of one Montpellier master, Bernard de Gordon.

Bernard may not be as famous as some of his contemporaries, such as Arnold of Villanova or Henri de Mondeville, whose names are traditionally associated with the medical faculty of Montpellier in its heyday. These better known figures, however, were presumably atypical because they either were extraordinary personalities or were only temporarily connected with the University of Montpellier.[1] Bernard, on the contrary, may be considered truly representative of Montpellier's tradition. He was apparently born and educated in Provence, and his entire

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

career of physician-professor was closely associated with the Faculty of Medicine at Montpellier. This association will be shown in the course of the survey of his writings, which were exclusively medical yet broad in scope. They encompassed virtually the entire spectrum of contemporary medical interests, practical as well as theoretical. Moreover, consideration will be given to Bernard's own thought both for its intrinsic interest and in relation to the Montpellier intellectual tradition.

It is, perhaps, ironic that documentary evidence for the details of Bernard de Gordon's life is lacking. His biography has had, therefore, to be reconstructed almost entirely from scraps of information contained in the manuscripts of his own works. Aside from this internal evidence, information on him provided either by his contemporaries or by those who came after him, is scarce. The most renowned of those who mentioned him was Geoffrey Chaucer. However, Chaucer erroneously referred to him as "Scotch Bernard" in the Prologue of the Canterbury Tales, composed less than a century after Bernard's death. Chaucer also lined him up with two Englishmen, Gilbertus Anglicus (early thirteenth century) and John of Gaddesden (ca. 1280-1361).[2] There are, indeed, other indications,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

such as his citation by English authors and the number of manuscripts of English origin, that Bernard was well known in the British Isles in the fourteenth century.[3] Moreover, like the English authors who accompany him in Chaucer's Prologue, Bernard had composed a medical compendium with a floral title, the Lilium medicine.[4] It may be logical, therefore, to find Bernard in this group,[5] although it is not clear what exactly, besides the sound of the surname Gordon, earned him the designation of Scotchman by Chaucer.[6] In any event, the latter's influence may account for the historical tradition of Bernard's Scottish origin.

How deeply rooted this tradition has become may be seen from the fact that one of the most widely used textbooks of the history of medicine calls Bernard "inferentially a Scotchman."[7] While this historian cautiously admits the inferential character of his assumption -- and tantalizingly omits all reference to his source -- other authors are far less reserved. Thus one historian of medicine, Benjamin Gordon, perhaps carried away by patriotic pride and clannish bias, asserts that Bernard himself "claims to have had Scottish ancestry."[8] When still another author, Donald Campbell, classifies our physician

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

among "the leading representatives of Anglo-Norman medicine,"[9] we are made fully aware of the relevance of the problem of Bernard's actual origins.[10]

If the tradition of Bernard's Scottish parentage rested on the sound of his surname Gordon, it was probably based on an erroneous premise. In the manuscripts Bernard is referred to as de Gordonio rather than as Gordo or Gordonius.[11] A more plausible assumption, therefore, is that he was a native of one of the several places with the name Gordon or Gourdon in France.[12] One of these, Gordonium, is in fact near Cahors, less than one hundred fifty miles northwest of Montpellier. Gordonium, now Gourdon in Quercy (Département du Lot),[13] was a town of some importance at the end of the thirteenth century. It appears together with Cahors and four other Provençal cities in an astrological tract of around 1300 -- a tract that, incidentally, may have some relation with our master Bernard.[14] Another indication of Gordonium's importance is a summons by King Louis X, ordering the town to send representatives to a central assembly at Bourges in 1316.[15]

Although there is no conclusive evidence to identify the birthplace of Bernard de Gordon, the plausibility of his meridional origin is suggested in his own

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

writings. The nature and frequency of his references to Provence, which could be explained by the fact that all his works were composed at Montpellier, should be weighed together with the apparent absence of personal reminiscences and the hearsay character of his information with regard to other regions. For example, in a single reference to England, he cites that country as an example of a "distemperate region," and his source of information is strikingly indirect, namely Galen's Regimen Sanitatis.[16]

While an instance such as the one above may have been overlooked by some of those who tended to accept Bernard's Scottish origins, more significantly, his firsthand observations have been misread by others. Thus Karl Sudhoff, for example, interpreted Bernard's description of an endemic type of leukemia, which he had observed in "certain people" of one "territory," as referring to a "northern land."[17] Bernard himself, however, a few chapters later unambiguously identified the region, affected by the hematological disease, as Montpellier.[18] With regard to northern areas, moreover, it may be pointed out that he usually alluded to the Germans, rather than to the English, as typical of people affected by a cold climate.[19]

Bernard's personal knowledge of the north, as well

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

as of other distant climes, was clearly indirect. He supplemented his booklearning with observations in the busy streets of cosmopolitan Montpellier. There he saw strangers from German as well as from Arab lands,[20] and marvelled at the appearance of two midgets or "Pygmies".[21] In this emporium, too, he was fascinated by foreign merchandise--especially wines--,[22] and he heard tales of faraway lands. Tales and hearsay constituted a source of his information even on relatively nearby countries such as Spain and Italy. To Spain he alludes only vaguely, as an ideal climate for philosophers.[23] About Italy he reports explicitly on the basis of "common rumor" that poisonings are frequent and that women prefer good clothing over a healthy diet.[24] The only place, in fact, which Bernard calls "nearby" is Avignon,[25] and the region he proves truly familiar with is "this Provence" (Provincia Narbonensis).[26] This would indicate that Bernard had done little traveling. Moreover, the Provençal vernacular (vulgare) or dialect (ydioma) is the only language, other than Latin, of which he demonstrates any knowledge.[27]

To the above may be added the comment that, if Bernard was indeed born on a distant shore, he had certainly come to admire the Montpellier region as "very beautiful,"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

situated in a temperate area, and thereby blessed with "temperate, just, handsome, and very wise people."[28]

Although these scattered references to people and to regions may not carry much weight when cited individually, their combined impact provides a better basis for the assumption that Bernard de Gordon was of Provençal, rather than of Scottish, origin. This assumption of his Provençal origin should not, however, lead one to confuse him with another physician, Bernardus Provincialis of Arles, who lived more than a century earlier.[29]

The date of Bernard de Gordon's birth is uncertain but could safely be put around 1258 if we estimate that he was twenty five years old when he began teaching in the Faculty of Medicine of Montpellier in 1283.[30] His last dated work was composed in 1308, but he may have written some other treatises after that year, as will be demonstrated in the next chapter. The date of Bernard's death has traditionally been set around 1318.[31] Moreover, since his last dated work was undertaken in Montpellier, there is no reason to believe that he died elsewhere.

Aside from the broader problems of Bernard's origins and career, there is another question related directly to his choice as a representative of Montpellier's academic

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

tradition. This is the question of where he was educated. Here again, assumptions have been made that have no basis in known facts. Thus, Dr. Sarton asserted that Bernard "was educated at Salerno,"[32] probably because Bernard displayed an extensive knowledge of the Salernitan works and doctrines. However, the Montpellier Faculty of Medicine itself zealously cultivated the Salernitan tradition, as shown in the curriculum and writings, discussed above. Also the absence of personal reminiscences about southern Italy in Bernard's writings suggests that it is unlikely that he ever was at Salerno. There is also internal evidence in one of Bernard's treatises, the Compendium regiminis acutorum. This brief tract was, as he asserts, "composed while he was still a bachelor, at the time of his first lecture (cursus primus)."[33] If this baccalaureate lecture was delivered at Montpellier, as we may presume from the absence of indications to the contrary, it would provide a convincing argument that Bernard had received his schooling there, at least with regard to medicine.

It is more difficult, however, to determine the place where Bernard had received his pre-medical education as well as the nature or content of that training. Both

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

are matters of speculation. The Montpellier region, or at least the Midi, seems plausible as the place, if we consistently use, as an argument ex silentio, the absence of personal reminiscences about other areas in his geographical references. Bernard, moreover, does not inform us about any of the subjects which he studied before entering medical school. However, it seems safe to assume that he had received the usual prior training in the arts.[34]

The above assumption is indeed borne out by some general references to education and by the use of non-medical authorities in Bernard's writings. For example, according to Bernard, a boy should begin to learn and read at the age of six, although he "should not be forced to stay long in class."[35] When he reached twelve, "he must choose the career which he desired to pursue or towards which he was inclined," namely either the military, or the trades (ars mechanica, ars negociatoria), or that of higher learning (via speculativa). The latter career, in which one is trained "in the sciences and philosophy," is also referred to by Bernard simply as philosophia.[36] While Bernard does not mention the liberal arts as such,[37] he undoubtedly was referring to the thirteenth-century

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

arts curriculum, which indeed comprised not only the trivium (grammar, rhetoric, and logic) and the quadrivium (geometry, arithmetic, astronomy, and music), but also the three philosophies, namely rational, natural, and moral.[38] This, therefore, is the framework under which our search for evidence of Bernard's pre-medical education in his works has proceeded.

The trivium is represented when Bernard mentions, apparently from personal reading, such works as Ovid's De fastis, the De duodecim cesaribus (Suetonius), and Boethius' De consolatione philosophie.[39] These works were often found in the grammar curriculum.[40] A further indication of Bernard's literary background is found in his frequent quotations from anonymous poets and "versifiers,"[41] which he may have learned while studying grammar.[42] In addition, he quoted extensively from the Bible, especially from the Book of Wisdom.[43] As to rhetoric, Bernard reminds us that "wisdom without eloquence is of little use," as written in the Rhetorica.[44] Evidence for Bernard's training in dialectic may be found in the logical organization of his treatises and in the scholastic arrangement of questiones, contradicting opiniones, and conclusions.[45] He also refers frequently to Aristotle's Topica, which

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

deals with dialectical argument from probable premisses.[46]

Bernard mentions by name, moreover, the following classical curriculum authors: Pythagoras, Sallust, Horace, Ovid, and Seneca.[47] While Ovid and Seneca figure most prominently (9 citations each), one cannot fail to notice the absence of such curriculum classics as Cicero or Virgil. Of the early Christian authors, who were usually included under the disciplines of the trivium, Bernard names Origen, John Chrysostom, Jerome, Augustine, Prosper of Aquitaine, Fulgentius, and Pope Gregory the Great. Here Saint Augustine (7 citations) and Saint Jerome (6 citations) outnumber the others, while such authors as Cassiodorus and Isidore are conspicuously absent.[48]

Bernard's selection of more recent non-scientific authors is rather peculiar. He cites the bawdy twelfth-century comedy Pamphilus, warning that it should not be read by children under twelve.[49] The only "literary" moderns, whom he mentions by name, are Hugh of Saint Victor and Bernard of Clairvaux. It would seem, however, that Bernard de Gordon, while rather careful in identifying the classics and Fathers whom he quotes, is more free in citing modern authors. Perhaps he assumes that the reader knows the moderns well enough to recognize

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

their quotations. Thus, he seems to use the De proprietatibus rerum (ca. 1230-1240)[50] of Bartholomaeus Anglicus on several occasions, although he mentions it only once--and even then without naming its author.[51] This apparent carelessness underlines another problem in tracing Bernard's literary background. It is often difficult to determine whether he draws directly from an original source or from a florilegium or an encyclopedia.[52]

From the above evidence it appears that Bernard was accomplished in the subjects on the first level of higher learning, the arts of the trivium. However, of more direct importance to the trained physician were the mathematical arts of the next level, the quadrivium.[53] These arts Bernard presumably took for granted, since he does not name them specifically when listing the qualifications which he considers essential for the physician. Among these, he indicates the need for good vision, memory and judgement, citing Haly Abbas.[54] He emphasizes the fact that the physician ought to be "able to interpret the sayings of Hippocrates and Galen, and to discern universals and particulars." The physician, Bernard adds, "must be knowledgeable (sciens)"; but how he acquires that knowledge,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Bernard does not indicate.[55] He adds, however, that the physician must be diligent and, above all, he must "practise according to the art, that is by the canon of Hippocrates, Galen, and the other sages." This canon, he asserts, "condemns every art of augury, such as the geometric art..."[56] At first glance, one might assume that by the "geometric art" Bernard meant geomancy; but this assumption is questionable, unless he now condemned what he himself had engaged in, a mere four years earlier, when he translated a geomantic treatise.[57] In any event, the ars geometrica is listed here among the occult practices, without any effort to distinguish it from its quadrivial counterpart, geometry,[58] to which he makes no allusion.

While Bernard is also silent on the study of arithmetic, his proficiency in that art is suggested in his work on medicinal degrees. In his treatise De gradibus he examines the mathematical pharmacy of Galen, Alkindi, and Averroes, and defends the calculatory techniques of his colleague Arnold of Villanova.[59] Furthermore, in this same essay on the quantification of compound medicines, Bernard freely manipulates fractions and proportions which, as he asserts, "we cannot know without numbers."[60]

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Moreover, Bernard applies arithmetic to another mathematical art, astronomy. He does this particularly in the calculation of the calendar, the computus.[61] Bernard displays his familiarity with this art when he discusses the differences between the common, ecclesiastical, and medical computations of the lunar month.[62] He further defines in detail the rising and descending quadrants and semiquadrants of the lunar period and asserts that the physician "should have one correct calendar of lunation, for without it he is not a [true] physician."[63] Bernard advises that, not only for prognostication but also for actual treatment, "the physician should know something about the nature of the heavens."[64] As the "something" suggests, however, it seems that Bernard required only a rather basic knowledge of astronomy on the part of the ordinary physician.[65]

Bernard's own endeavors, on the other hand, indicate a pervasive interest in the various branches of astronomy. His chief concern was with practical "astronomy" or astrology, that is the influence of the moon and stars on acute diseases, pregnancy, and phlebotomy.[66] He usually did not name specific authorities on this applied astronomy, with one single exception where he cited Haly ibn Ridwan's

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

commentary on the Centiloquium.[67] He otherwise referred merely to the "wiser astronomers" and the "Egyptian sages," while his sources in all likelihood were the works of Albumasar and the above mentioned pseudo-Ptolemaic Centiloquium.[68] Furthermore, Bernard revealed his interest in another branch of astronomy, namely judicial astrology, in his translation of the pseudo-Ptolemaic treatise De reductione geomancie ad orbem.[69] This work, though merely a horoscope, juggles the signs and planets of the zodiac and their properties.

Such discussions of both applied astronomy and astrology do indeed presuppose a working proficiency in physical astronomy per se. And this supposition is borne out in Bernard's case by the instances in which he displayed his familiarity with scientific astronomy. He thus precisely dated his De conservatione vite humane as "begun when the moon was in conjunction with the sun towards the seventh degree of Pisces."[70] Moreover, as indicated earlier, he had requested that Profatius draw up a map of the celestial sphere.[71] Bernard seems even to have tried his hand at astronomical theory when he speculated that the epicycles of planetary motion do not exist in fact but only in a working postulate.[72] Again it may be noted that he did

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

not mention any authority on physical astronomy. In fact, it appears that Bernard's knowledge of astronomy was primarily the result of his own personal interest and investigation, rather than of formal education. It was apparently the achievement of a "hobby" which he cultivated during his career as a physician, rather than the fruit of schooling.

Also the last of the quadrivial arts, music, appears only as an intrinsic part of the physician's concern in Bernard's writings. Thus, he listed "a perfect knowledge of all musical proportions" among the prerequisites for reading the pulse.[73] He also repeated the traditional belief in the therapeutic value of instrumental music for mental or psychosomatic problems.[74] Furthermore, in the moralizing vein that was one of his salient characteristics, he added a warning against the corrupting influence on children of "evil music" and bad songs.[75] He wondered, too, about the skill, acquired "by habit," with which the musician plucks an instrument melodiously without looking at the strings.[76] Obviously, however, these instances pertain to music as a craft rather than to the study of the mathematical ars musica.[77]

The evidence is, indeed, at best inconclusive and

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

at worst negative on the question whether Bernard had received any instruction in the arts of the quadrivium before beginning his medical studies. He may possibly have studied part of the arts while already in medical school. At Montpellier in this very period, as we have seen, the line between the liberal arts and medicine was not yet clearly drawn. It was only in 1340 that the members of the medical faculty expressly prohibited the masters "to lecture in the medical schools on any of the textbooks of grammar, logic, or natural science, with the exception of the book De animalibus."[78]

Natural philosophy or science, which followed the trivium and quadrivium in the arts curriculum, was inextricably intertwined with the study of medicine.[79] It seems impossible, therefore, to determine how much of Bernard's knowledge of the philosophia physica preceded his medical training. Some indication of his pre-medical schooling in natural science may perhaps be found in his frequent citations not only of Aristotle's De animalibus but also of the De anima, Historia animalium, De motibus animalium, De coloribus, and the Metaphysica.[80] Furthermore, Bernard appears quite familiar with such elements of Aristotelian ontology as potentia and actus, and materia

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and *forma*.[81] It may seem surprising, however, that he names only two modern authorities on natural science, namely Alveredus (Alfred of Sareshel)[82] and Albertus Magnus. Of the latter Bernard cites the *De nutribili et nutrito* and the *Philosophia*.[83]

The last of the three philosophies, which made up the arts curriculum, was moral philosophy. This branch of learning ranked especially high in some writings of Bernard. He utilized the non-scientific authorities almost exclusively for moralizing purposes. Thus, more than half of his quotations from Aristotle relate to ethical aspects, and Aristotle's *Ethics* alone is cited fifteen times.[84] Furthermore, the Latin classical authors were summoned primarily to buttress Bernard's pious admonitions. This should perhaps not surprise us, because the pagan Latin authors were called "*ethici*" or "moralists" since the twelfth century.[85] It was especially to Seneca, who "spoke with an angelic tongue," that Bernard turned for ascetic advice against self-indulgence and, interestingly enough, against the pursuit of "curiosity" in studying.[86] Bernard also called upon the Fathers to underscore his pleas for a virtuous life of moderation, chastity, and humility. He emphasized the importance of the moral virtues

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

in his guidelines for master, disciple, and teaching, where he elaborated the qualities which he deemed essential. The master should be ingenious, eloquent, and skillful, but he should also be upright and humble.[87] The disciple should not be superficial, curious, or lazy in his studies, but above all he should lead a saintly life, pray frequently, and practice modesty and temperance.[88]

Thus far, Bernard's moralistic concern in these guidelines appears not to have been indicative of more than a particular context or a personal inclination. Bernard included these instructions in a Regimen of Health, by which he intended to guide the reader towards a total well-being, spiritual as well as mental and physical. Moreover, he was firmly convinced that "the physician must be a good moralist (magnus moralis)."[89] In addition, Bernard composed the Regimen when he was advancing in age and thereby probably becoming more inclined towards moralization. However, the special emphasis on piety and asceticism in his guidelines seems to suggest a monastic background for Bernard's moral concern. For the master's teaching, for example, he listed only ascetic prescriptions instead of intellectual content. The doctrina or instruction should be "saintly and enlightened" and should concentrate

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

on self-control in behavior, dress, speech, and use of the senses.[90]

The choice of authorities, which he quotes in these prescriptions, confirms the plausibility of the view that Bernard may have received his earliest education in monastic circles. To be sure, any liberal arts background might account for his knowledge of Saint Jerome and Saint Augustine, as well as of Hugh of St. Victor. However, his references to Prosper of Aquitaine's De vita contemplativa[91] and to Saint Bernard seem to point towards the literature of the cloister. Master Bernard had perhaps begun his schooling under the Cistercians, who founded an abbey at Gourdon in 1261.[92] In any event, he was a deeply pious man, one who, in the closing years of his life, believed with Saint Augustine that "doubts are solved better by prayer than by other inquiry."[93] Prayer, too, Bernard held, was an effective soporific when all other remedies for sleeplessness failed.[94] In addition, he prescribed fast and scourging against concupiscence.[95]

The possible influence of monastic asceticism upon Bernard is further suggested by his expressed attitude towards woman, love, and marriage. He held that "looking at a woman causes the worst corruption of morals," and that

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

girls should be trained "above all in taciturnity."[96] He called love "an insanity of the mind, mixing a few pleasures with its sorrows."[97] Moreover, Bernard saw marriage as a last resort for some people, and he cited Saint Paul's well-known verdict that "it is better to marry than to burn."[98] In fact, he asserted, marriage may be bad for a man's health, "since one can hardly follow a good regimen where women wield power."[99] That Bernard himself was probably unmarried is implied in his recommendation of an aphrodysiac whose effectiveness he presumably knew only from "good colleagues."[100] It is, however, not likely that Bernard was a professed monk. Although he esteemed the religious life and devoted special consideration to monks in his remedies,[101] he poignantly insinuated that monks "abound in fleas."[102] He seemed, moreover, to share some of the laity's less charitable opinions of the religious. Thus, in an interesting description of depressive mania, he listed among the symptoms the nightmares in which the patient saw such "frightful things" as devils, hanged dead, and black monks.[103] He also included, as possibly dispensable, the religious in his medical experiments. He advised, namely, that the strength of a medicine should be tested "first on birds,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

then on mammals, then on [patients in] hospitals, then on Friars Minor, and so on progressively, because if it should be poisonous it would kill."[104] Possibly the inclusion of the Friars Minor is convincing proof that Bernard himself was not a Franciscan.

It appears clear that master Bernard de Gordon spent his entire teaching career, from the baccalaureate in 1283 to at least 1308, in Montpellier. Most of his works are not only dated but are also identified as having been composed "in preclaro studio Montis Pessulani."[105] In some manuscripts also, Bernard is referred to by the scribe as the dean of the physicians.[106] Indeed, one modern historian has given him--as dean--a crucial role in an academic dispute in 1313,[107] and another has designated him "rector of the college."[108] However, information relating to Bernard is lacking in the documents of the Cartulary, and he is not mentioned in any diplomatic record. It is of interest to recall that it was during the early years of his career, in 1289, that the Montpellier schools received the status of Studium generale.[109]

Unlike so many of his colleagues, Bernard seems not to have played an active role in politics, whether academic, ecclesiastical, or in the world of mundane affairs.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

He seems not to have served as physician to potentates, although he may have known someone at the court of King Jaime of Majorca.[110] He in fact recounts only one case in which he treated a noble patient,[111] although he appeared to give special attention to the nobility.[112] In academic circles, on the other hand, Bernard probably aroused resentment because of his criticisms of colleagues and of contemporary practices.[113] For example, as Professor McVaugh has suggested, Bernard may have scored the visionary excesses of his famous colleague, Arnold of Villanova.[114] Arnold in return, though apparently owning Bernard's Lilium medicine, did not mention Bernard in his own works.[115] Bernard also berated his fellow physicians for their neglect of diagnosis by phlebotomy, as well as for their "arrogance and ignorance" in disdaining uroscopy.[116] Furthermore, he accused them of venality when he charged that they were more interested in the lucrative treatment of diseases than in the preventive application of a good regimen.[117] On one occasion, he even seemed to insinuate that the masters at Montpellier were partly responsible for the death of a confrere. Bernard related the case of a forty-year-old master who had lapsed into a coma: a group of masters had agreed that the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

patient should be phlebotomized, but not one of them supervised the actual venesection by a surgeon, and the master bled to death.[118] Insinuations and criticisms like these did not endear Bernard to his colleagues at Montpellier. That may in part explain why so little external evidence is available for his life and career, although his works were soon cited and copied all over Europe.[119] For Bernard himself, it would appear, his career as author, teacher, and practitioner was sufficiently engrossing to encompass the whole of his attention. His treatises, moreover, provide a gold mine of material on the elements of the Montpellier academic tradition and on Bernard as a representative of that tradition.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NOTES TO CHAPTER FOUR

1. This was pointed out by Pierre Pansier, who stated that "C'est un fait à remarquer que tous les professeurs célèbres abandonnèrent l'école après quelques années d'enseignement." For example, Henri de Mondeville became the personal surgeon of Philip IV the Fair in 1302, and both Jean d'Alais and Guy de Chauliac moved to the papal court at Avignon. Pansier explained this by the fact that "les fonctions de professeur à l'école de Montpellier étaient peu lucratives" and that the successful doctors of Montpellier had only one goal, namely "se servir de leur charge pour acquérir renommée et accès à la cour des grands": "Arnaldi de Villanova Libellus Regiminis de Confortatione visus," Mémoires de l'Académie de Vaucluse, Série 2, III (1903), 2-3.

2. The Doctor was well-versed in Esculapius too
And what Hippocrates and Rufus knew
And Dioscorides, now dead and gone,
Galen and Rhazes, Hali, Serapion,
Averroes, Avicenna, Constantine,
Scotch Bernard, John of Gaddesden, Gilbertine,..."
Canterbury Tales, tr. by Nevill Coghill (Baltimore, 1952), p. 37.

3. John of Gaddesden already referred three times to Bernard in his work (see below). One tentative explanation of Bernard's admission to the "English"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

patrimony may be found in the fact that his Lilium medicine was "a favorite textbook in Ireland, being twice translated into Irish, first by a member of the O'Hickey family in the northern part of Munster, then again in the fifteenth century by Cormac MacDuinnsthleibhe, a distinguished scholar and physician of Ulster... Bernard's works were often cited by Irish and Scottish doctors," Sarton, Introduction, III, 873 (where no references are given).

A number of manuscripts of English provenance have come to my attention (e.g., London: BM Sl.512, 14th c.: Lilium and De conservatione vite humane; BM Sl.334, 14th c.; Boston Medical Library 18, 14th c.; and so on). However, I have not found evidence of any early English translations of Bernard's works. In fact, a reference by a 15th-century untrained physician seems to indicate that the Lilium was still untranslated: "Gordonie of Burgundie that is callid lilium medisine... for faute of pecunie, Y may naught geten, thowz Y woot weel where thay been; and pore and symple hath litil helpe," London: MS 124 of the Royal College of Physicians: mentioned by Rossell Hope Robbins, "Medical Manuscripts in Middle English," Speculum, XLV (1970), 409-410.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

4. Gilbertus Anglicus had composed the Laurea anglica (ca. 1250) and John of Gaddesden wrote the Rosa Anglica (ca. 1320). These works are compared briefly with Gordon's Lilium medicine (1303) in chapter V below.
5. The three "formed a natural group and ... a natural progression," according to George Sarton, "Lilium medicinae," Mediaeval Studies in Honor of J.D.M. Ford (Cambridge, Mass., 1948), p. 241.
6. It would seem that Chaucer's belief in Bernard's Scottish origin was not shared by contemporary Englishmen, since in one 15th-century manuscript Bernard is called "Gordonie of Burgundie," see n.3 above.
7. H.F. Garrison, Introduction to the History of Medicine, 4th edition (Philadelphia, 1960), p. 164. Most recently, this tradition is still evident in Mario Tabanelli, Jehan Yperman; Padre della Chirurgia Fiamminga (Firenze, 1969), p. 36; and in P. Glorieux, La Faculté des Arts et ses Maîtres au XIIIe siecle (Paris, 1971), p. 107.
8. Medieval and Renaissance Medicine (New York, 1959), p. 283 (italics mine).
9. Arabian Medicine and Its Influence on the Middle Ages (London, 1926), I, 162 (italics mine).
10. Another tempting hypothesis, that of Bernard's Jewish origins, is discounted by Sarton with the argument that

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"Jews were at that time unwelcome in Montpellier, but also because the name Gordon was not used by mediaeval Jews," in "Lilium medicinae," p. 242, n.3.

11. This was already pointed out two centuries ago by Jean Astruc, "Bernardus Gordonius, ou plutôt de Gordonio," in his Mémoires pour servir à l'histoire de la Faculté de Médecine de Montpellier (Paris, 1767), pp. 176-181.

However, a notarial document of Asti (Monferrato, Italy), dated 1330, makes mention of "alterius Bernardi Gordonii olim in monte persulato [sic] medicine lectoris preclarissimi," who lived "in partibus provincie." The document concerns one Gulielmus Gordonius, physician and canon of Asti, who was the cousin of Bernard according to Vincenzo Malacarne, Monumenti Delle Opere de'Medici ... negli stati della R. Casa di Savoia, II (Turin , 1789), 92-93.

12. A clever but faulty argument for Bernard's French origin is given by C.H. Talbot, who thinks that "The title which Bernard gave his book Lilium may even indicate that he was French: for he explains that 'in a lily there are many flowers; and in each flower there are three petals with six golden stamens. In the same way this book contains seven parts.' The three petals probably refer to the Fleur de Lys of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

France: certainly they could not describe the Thistle of Scotland," Medicine in Medieval England (London, 1967), p. 104. Besides being unconvincing, the argument is based on a misreading of the Latin text: "In lilio enim multi flores sunt, et in quolibet flore sunt septem folia candida et septem grana quasi aurea," Lilium medicine, prologue: London: BM Harl. 3698, fol.1r (italics mine).

13. Pierre Deschamps, Dictionnaire de Géographie ancienne et moderne (Paris, 1964), p. 574, s.v. Gordonium. For bibliography on Gourdon, see Ulysse Chevalier, Répertoire des sources historiques du Moyen Age; TopoBibliographie, I (Paris, 1894), col.1326.

Littré refers to a Gourdon in the Var and one in the Lot, Histoire Littéraire, XXV (1869), 321. Sarton puts Gourdon in "Rouergue (a part of Guyenne; now Département Aveyron)," Introduction, III, 873.

14. In a horoscopic drawing referring to planets, the zodiac, and cities, we find mentioned Burdegala, Tolosa, Gordonium, Baionna, Agennium, Caturcum, and as the only non-Provençal cities, Jerusalem and Parisius: Paul Meyer, "Traités en vers provençaux sur l'astrologie et la géomancie," Romania, 26 (1897), 237, describing Paris MS BN Lat. [sic] 7420A, item 21. On the same

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

manuscript see chapter V below, n. 40.

15. C.H. Taylor, "Assemblies of French Towns in 1316," Speculum, XIV (1939), 278. Other towns summoned were Toulouse, Alès, Millau, and Najac. With regard to the last of these towns, there is an intriguing coincidence in the name of one of its representatives, "magister R. Gordo," see Elizabeth A. Brown, "Assemblies of French Towns in 1316: Some New Texts," Speculum, XLVI (1971), 286.

16. "Dicit Galenusin de regimine sanitatis, part.i, et intendit dicere quod in regionibus distemperatis non invenitur corpus optimum et exemplificat in anglia et arabia dicens quod in regionibus multum distemperatis non possunt inveniri corpora temperata," Bernard de Gordon, Regimen sanitatis, XI, in MS Vatican Palatine Latin 1174, fol.66v (henceforth cited as VAp).

Once, also, the "Anglici" are mentioned by Bernard, Lilium medicine, II.1, in MS BM Harl. 3698, fol.21r.

17. "Vidi enim aput quasdam gentes sanguinem habentem colorem subalbidum subcinerium sicut si esset sepum, et vidi hoc in omni etate illius territorii et in omni sexu et in omni tempore ut plurimum, quod reputavi prodigium grande," Bernard de Gordon, De phlebotomia, Prol., in MS VAp 1174, fol.10r. Sudhoff comments on

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

this passage, "Leider sagt er nicht, in welchem nordischen Lande er diese Beobachtung zahlreicher Fälle leukämischen Blutes gemacht haben will. Er selbst wird ja, wohl nicht ganz mit Unrecht, für schottischer Abkunft gehalten," in "Zur Schriftstellerei Bernhards von Gordon und deren zeitlicher Folge," Archiv für Geschichte der Medizin, X (1917), 175, n.3.

18. "Talis sanguis apparet ut plurimum in monte pessulano quia ut plurimum sunt homines qui sunt in ocio et sunt in multitudine cibi et potus.... et investigacione huius coloris fui sedulus inquisitor apud flebotomatores et ut plurimum inveni talem sanguinem apud istam gentem, cum ergo apparet color subcinericius aut subalbidus aut sicut color sepi aut fundi," De phlebotomia, in MS VAp 1174, fol.20v.

19. Bernard's description of the German physiognomy and character, as influenced by the northern climate, is quite interesting: "Sunt autem boni in naturalibus, mali autem in moribus, quoniam bellicosi, irascibiles, indomabiles, furiosi, preparatissimi ad arma, inobedientes regi et legi; et quia digestio venarum propter frigiditatem aeris corrumpitur, ideo pingues, albi. Et cum hoc natura fecit equos similes figuris eorum, pingues et rotundos, ut patet in equis Alemanorum,"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De pronosticis, II.7, in MS VAp 1174, fol.84r. Also Lilium, II.1, in MS BM Harl. 3698, fol.21r; and see notes 20 and 28 below.

20. "Ad sensum enim videmus quod ... sunt maiores in corpore et forciores et magis audaces sicut patet in Theotonicis," Regimen sanitatis, XI, in MS VAp 1174, fol.66v; for "Alemani" see preceding note.

Bernard refers to a Spanish "gente Arabum dicta vulgariter Geneth," De pronosticis, II.7, in MS VAp 1174, fol.83v; the Arabs, too, seem to be included under the terms "indi" (Lilium, II.1, in MS BM Harl. 3698, fol.21r, and II.10, ibid., fol.24r) and "ultramarini" (ibid., II.8, fol.23v).

21. "Ultra autem regionem, ubi colligitur piper, accidunt multa monstra et peccata, sicut sunt Pigmei, qui non sunt ad longitudinem unius palme cum dimidia, sicut ego vidi duos," De pronosticis, in MS VAp 1174, fol.84r.

22. Bernard mentions the foreign wines of Cyprus, Naples, Genoa, and Burgundy, in addition to those cited from Galen. See De gradibus, ed. Julius Pagel, Pharmaceutische Post, XXVIII (1895), 260; De marasmo, in MS VAp 1234, fol.139v; De pronosticis, II.3, in MS VAp 1174, fol.82r; and Regimen sanitatis, V, ibid., fol.57r-v.

23. "Manifeste videmus quod philosophi fuerunt plurimi in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

quarto climate quam in alio sicut fuerunt a parte orientis in Grecia et a parte occidentis in parte Yspanie in Corduba," Regimen sanitatis, XI, in MS VAp 1174, fol.66v.

24. Lethal poisons "videntur esse noti apud plures Italicos in tantum eciam quod venenum ponunt in hostia consecrata et interficiunt irremediabiliter sicut fama communis currit ... et currunt ista venena potissime circa prelatos domino permittente propter culpam nostram," De tyriaca, ed. J. Pagel, Pharmaceutische Post, XXVII (1894), 258 (italics mine).

"Frater lumbardorum" or "mola matricis frequentius ut dicitur generatur in mulieribus lumbardie, aut quia magis laborant ... aut propter corrupcionem nutrimenti, sicut in Apulia, quia dicitur communiter quod Italice pessime vivunt scilicet ex fructibus et herbis, sed bene induunt," Lilium medicine, VII.18, in Venice pr. ed., 1498, fol.93v. (italics mine). The MS version, in BM Harl. 3698, fol.96v, is slightly different.

25. "[Scorpiones] inveniuntur prope nos in Avinione," Lilium medicine, I.14, in MS BM Harl. 3698, fol.8r.

26. "[Vinum] in ista provincia quod fieret ... de uvis candidis que nominantur uve columbares," De marasmo, in MS VAp 1234, fol.139v. "Vina que crescunt in Monte

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Pessulano et ut plurimum in tota provincia Narbonensi," Regimen sanitatis, XII, in MS VAp 1174, fol.67v. "Galenusnec Ypocras numquam viderunt vinum album fortis virtutis et tamen hodie invenitur quasi sicut aqua ardens cum virtute quasi intolerabili et ista inveniuntur in multis locis in provincia Narbonensi," ibid., V, fol.58v.

Bernard describes aqua ardens as "vinum distillatum per alembicum quoniam cito inflammat corpus et ascendit ad caput nisi cum multa aqua reprimatur," De gradibus, ed. Pagel, p. 260. For this "firewater," which Bernard's contemporary and colleague Ramon Lull allegedly was the first to call "alcohol," see Paul Jaulmes, "La rectification de l'alcool, invention languedocienne," Monspeliensis Hippocrates, 46 (1969), 17-29.

27. "Vinum anni citrinum in colore, deinde vulgari provincialium, castaynch. mediocre in substancia, odoriferum," De pronosticis, in MS VAp 1174, fol.82r. Against hernia, "Rx fabe inverse que vulgari provincialium vocatur benadus," Lilium medicine, VII.7, in MS BM Harl. 3698, fol.91v. Against consumption "utatur confectione que dicitur tri.[?] sed in ydiomate provincialium menudeli," ibid., IV.5, fol.52v; also see ibid., 1.27, fol.17r.

28. Temperaments are different "in regione calida ut in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Aethyopia et aliter in frigida ut in Teutonica et aliter in regione vergente ad temperamentum inter ista sicut est praeclara regio Montispessulani," De gradibus, ed. Pagel, p. 133. "Regiones temperate cognoscuntur ex effectibus temperatis. Unde illa regio universaliter est temperata, in qua inveniuntur homines temperati, iusti, electe forme, magne prudencie...," De pronosticis, II.7, in MS VAp 1174, fol.84f.

29. "Le Bernard 'provençal', qu'on trouve cité, est vraisemblablement le même que Bernard de Gordon," Emile Littré, "Bernard de Gordon, Médecin," Histoire Littéraire, XXV (1869), 321. See also Thorndike, Magic, I, 740.

For Bernardus Provincialis, native of Arles and student of Salerno, who lived around the middle of the twelfth century, see Wickersheimer, Dictionnaire, I, 78 and II, addenda.

30. Bernard concludes the prologue of the Lilium medicine as follows, "Inchoatus autem est liber iste cum auxilio magni dei in preclaro studio montis Pessulani post annum xx. lecture nostre, anno domini millesimo ccc. tercio mense julii," in MS BM Harl. 3698, fol.1r. See also Ynez O'Neill, "Dates in the Printed Editions of the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Lilium Medicinae," Sudhoffs Archiv, IL (1965), 86-89.

31. "Ranchin [?] le place à l'an 1318; mais, comme il ne cite aucun document à l'appui de son dire, on peut croire qu'il n'y a là qu'une date approximative," Littré, Histoire Littéraire, p. 322. Bernard died "vers 1320" according to Cyr U. Chevalier, Répertoire des sources historiques du Moyen Age; Bio-Bibliographie, I (Paris, 1905), 556.
32. Introduction, III, 873.
33. The Regimen acutorum ends, "hec autem omnia scripta sunt post lecturam continuam xi annorum. Qui autem ista brevius habere voluerit accipiat subsequencia que tamen fuerunt facta in statu baccalarii tempore cursus primi etc. Explicit tractatus unus de regimine acutorum bernardi de gordonio quem composuit post lecturam xi annorum. Sequitur alius de eodem eiusdem adhuc in baccalariatu existentis," and here follows the Compendium regiminis acutorum in MS VAp 1083, fol.281v.
34. See above, chapter II, on the arts as prerequisites for the study of medicine.
35. "... et non cogatur diu stare in scolis," Regimen sanitatis, V, in MS VAp 1174, fol.57v.
36. "Debet eligere viam quam intendit vel ad quam magis in-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

clinatur iuxta concursum particularium. Tunc ergo aut declinat ad miliciam aut ad artem mechanicam aut ad philosophiam. Si autem appetit miliciam ut possit rem publicam viriliter defensare tunc debet adquirere robur et fortitudinem ... assuescat ergo videre homines mortuos in bello... Secunda via est ars mechanica ars negociatoria sine quibus vite necessaria haberi non possunt... Tercia autem via est via speculativa cum aliquis vult se exercitare in scienciis et philosophia," ibid., fol.58r.

If twelve seems a tender age to enter "higher learning", it may be noted that Bernard was conservative when compared to southern French universities, such as Toulouse, where students were often admitted at the age of 8 or 9, according to L.J. Paetow, The Arts Course at Medieval Universities (Urbana, Ill., 1910), p. 55, n.16.

37. It is, however, worth noting that Bernard, in a passage parallel to the above, substituted "letters" for "philosophy": at the age of 14, boys "debent poni ad officium quod intendunt vel declinant, ut ad literas vel ad miliciam et consimilia, sicut melius dicemus in libro de regimine sanitatis," De pronosticis, II.6 in MS VAp 1174, fol.83r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

38. This arrangement is a convenient but simplified abstraction, whereas the real arts curriculum was far more diverse and flexible. Its bewildering complexity is evident in the articles in Arts libéraux et Philosophie au Moyen Age (Montreal, 1969). For example, an examination guide composed by an anonymous master of arts at Paris between 1230 and 1240 (discussed by Philippe Delhaye, ibid., p. 166, and by Pearl Kibre, ibid., pp. 176, 180, 191) lists philosophia naturalis (metaphysics, quadrivial arts, physics), philosophia moralis, and philosophia rationalis (trivium). A different order is found before 1259 in Vincent de Beauvais, Speculum doctrinale (discussed by Delhaye ibid., p. 171-2): ph.practica (sermocinalis, moralis, mechanica), ph.naturalis (physics, quadrivial arts, metaphysics), and theologia. Thomas Aquinas (Kibre, ibid., p. 181) arranged under speculative philosophy these three subdivisions: mathematical, natural, and divine, or (ibid, p. 191) rational (trivium), mathematical, and physics. The arts curriculum at Oxford in the late 13th century placed "the teaching of all seven liberal arts as a preparation for the three philosophies, namely, natural philosophy, moral philosophy, and metaphysics" (James Weisheipl, ibid., p. 209).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

For the major groupings and variant orders of succession in the quadrivium, see Kibre, ibid., p. 181; the order we shall follow is the Varronean type. For Isidore of Seville's order, see chapter II, n.13 above.

39. "Dicebat Ovidius in de fastis, quid creat omne genus volucrum nisi blanda voluptas," Lilium medicine, VII.2, in MS BM Harl. 3698, fol.90r. Bernard also quotes from Ovid's Remedia amoris and mentions his De arte amandi (see n.49 below).

"Legitur enim in libro de xii cesaribus quod augustus cesar filiam et nepotes fecit sic instrui," Regimen sanitatis, VI, in MS VAp 1174, fol.60r. The same work is probably meant when Bernard refers to Caesar's death as "legitur in historiis imperatorum," De tyriaca, ed. Pagel, p. 259.

"Agamus ergo iuxta consilium boecii in fine de consolacione adversamini vicia...," Regimen sanitatis, prol., in MS VAp 1174, fol.54v. Another reference to Boethius is perhaps to the pseudo-Boethian De disciplina scholarium: "[dicit] Boecius vinum modice sumptum intellectui videtur acumen inferre," Regimen sanitatis, VI, in MS VAp 1174, fol.59r.

40. See Ernst R. Curtius, European Literature and the Latin Middle Ages, tr. W. Trask (New York, 1963), p. 50.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

41. For example, "dicebat poeta, senex fidelis prima credendi via," Regimen sanitatis, prol., in MS VAp 1174, fol.53v; " pueri fortissime memorantur, iuxta illud: quod nova testa capit inveterata sapit; religiosi iuxta illud: anima sedendo et quiescendo fit prudens, et iuxta illud: qui bonus est in studio, pravus est in foro," Lilium medicine, II.12, in MS BM Harl. 3698, fol.27v. One quotation may be of particular interest, because it can perhaps be traced to one of the 13th-century versified textbooks of grammar (such as Alexander de Villedieu's Doctrinale or Alanus de Lille's Anticlaudianus): "auditus est porta intellectus, et propter hoc versificator dicit, Quicquid Roma legit, quicquid studuistis Athenis, quicquid ad elenchos arguto disputat ore gallus, et in modica iactitat arte lingua. Quicquid artes diurno pectore sentit, cessit ab auditu, docilis prudensque perisset litera, si surdibus auribus esset homo," Lilium medicine, III.9, in MS BM Harl. 3698, fol.42r.

42. Bernard's use of a different type of "poetry," the medical mnemonic doggerel, will be discussed in chapter VI below.

43. The author of this book, the Ecclesiastes, is often referred to as Sapiens by Bernard, e.g. "dicit Sapiens

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

qui addit scienciam addit et laborem," Regimen sanitatis, prol., in MS VAp 1174, fol.54r.

44. "Scribitur in prologo rethorice [sic] sapiencia sine eloquencia parum prodest," Regimen sanitatis, V, in MS VAp 1174, fol.58v. The reference is probably to the Rhetorica ad Herennium (ca. 85 B.C.), sometimes attributed to Cicero or to an author called Cornificius; see Curtius, European Literature, p. 66 and passim.

45. See below, chapter V.

46. For example, "iuxta illud Aristoteles in topicis nemo eligit iuvenes duces eo quod non constat prudenciores," Regimen sanitatis, prol., in MS VAp 1174, fol.53v. The Topica of Aristotle, part of the "New Logic," was lectured on in the arts course of the University of Toulouse in 1309: see Paetow, The Arts Course, pp. 96-97.

47. Bernard also mentions Socrates in his prologue to the Lilium, incipit, "Interrogatus a quodam Socrates quomodo posset optime dicere, respondit, si nichil dixeris nisi quod optime sciveris," in MS BM Harl. 3698, fol.1r. Plutarch's Moralia may be the source of this quotation, as well as of Bernard's discussion of those who "vivunt ut comedant," Lilium medicine, V.8, in MS BM Harl. 3698, fol.66v (Socrates, quoted in Moralia, 4).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

48. Isidore's Origines may, however, be the source of some of Bernard's rather strange etymologies of such terms as theriac, gonnorhea, and amor hereos (lovesickness).

49. "Non debet audire pamphilum nec libellum de arte amandi Ovidii," Regimen sanitatis, V, in MS VAp 1174, fol.57v.

Pamphilus de amore, by an anonymous author, was based on an elegy in Ovid's Amores, I.8. It was listed among the textbooks of rhetoric in Eberhard the German's Laborintus in the early 13th century: Curtius, European Literature, pp. 50, 386, n.17. The Pamphilus is probably the origin of the word "pamphlet."

50. For the date and character of the De proprietatibus rerum, see Thorndike, Magic, II, 401-435 and Sarton, Introduction, II, 586-588.

It is also possible, however, that Bernard was actually referring to the De naturis rerum (before 1200) of Alexander Neckam, for whom see Thorndike, Magic, II, 188-204 and Sarton, Introduction, II, 385-386; or to the De natura rerum (ca. 1240) of Thomas of Cantimpré, for whom see Thorndike, Magic, II, 372-395 and Sarton, Introduction, II, 592-594.

51. "In libro de proprietatibus rerum scribitur quod smaragdus suspensus ad collum curat hemitriteum," De

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

urinis, XVIII, in MS VAp 1174, fol.41v. The emerald's properties are given in Bartholomaeus Anglicus, De proprietatibus rerum, XVI.88. For the latter I consulted the incunabulum edition (Nurnberg, Koberger, 1483) at the New York Academy of Medicine (Hain 2505).

An instance where Bernard perhaps quotes Bartholomaeus without naming him: on ptisis, "sicut gutta aque cavat lapidem racione frequencie, ita stillicidium reumaticum ipsum ulcerat," Lilium medicine, IV.4, in MS BM Harl. 3698, fol.51v. This seems taken from the De proprietatibus rerum, VII.31.

52. The problem is compounded further by the fact that encyclopedists, such as Vincent de Beauvais, also drew upon florilegia as well as upon original sources. See Berthold L. Ullmann, "Classical Authors in Certain Medieval Florilegia," Classical Philology, XXIII-XXVII (1928-1932).

53. See, for example, the pleas of Constantinus Africanus and Isidore of Seville, chapter II, n.14 above.

54. Haly Abbas or Ali ibn al-Abbas (Persia, d. 994), al-Kitab al-Malaki or Libri X pantechni sive theorice, est liber regalis in the translation of Constantinus Africanus (ca. 1075) and Dispositio regalis in the translation by Stephen of Antioch (1127). See TK,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

index col. 1816, and M. Ullmann, Die Medizin im Islam (Leiden, 1970), pp. 140-146. Since Bernard used the title Liber regalis as well as the title Dispositio regalis, it would appear that he knew both translations. A variant of the quotation in the following note refers to "Haly in tegne [sic]" instead of "Haliabbas." This, however, may also indicate that Bernard's quotation actually comes from Haly ibn Ridwan (Egypt, first half 11th century), Commentary on Galen's Tegni or Microtegni (for which see TK col. 1816).

55. "Preter condiciones, quas ponit Haliabbas, sc. quod sit bonae visionis in quinque sensibus, velocis solertiae, bonae rememorationis, boni iudicii et sani intellectus; oportet quod habeat in se tria, quod sit sapiens, diligens, et operetur secundum artem. Prima istarum est summe necessaria, ex hoc quod sit potens interpretare dicta Hippocratis et Galeni, et universalia et particularia discernere. Universalia particularibus applicare, quare oportet quod sit sciens," De decem ingeniis curandorum morborum (Venice, 1498), fol.1r.

56. "Secundo sit diligens... Tertio operetur secundum artem sc. per canonem Galeni et Hippocratis et aliorum sapientium,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

et in hoc condempnatur omnis ars augurandi [vaticinandi et divinandi], sicut est ars geometrica [geometrialis et] suspendendi herbas ad collum, [et] omnia empirica [et] sorticina [et] fassina, et alia quam plurima quae non est bonum revelare propter abutentes," ibid. The variants, found in MS VAp 1083, fol.283v, are added here in brackets mainly because of the use of geometrialis instead of geometrica. It should be pointed out, however, that this manuscript, in view of its late date (1447-1458), is hardly more reliable than the incunabulum version.

57. See below, p.202 and chapter V.
Bernard may be referring to an occult science called "geometrimancy" at a later time by the Aragonese inquisitor Nicholas Eymeric (1320-1399) in his Contra alchymistas. Thorndike states that Nicholas used this term for "the method of divining by chance marking of points or scattering of grains of sand which is usually designated geomancy," Magic, III, 515.

58. It is significant in this respect that Bernard did make a point of differentiating occult alchemy and scientific chemistry: "modus alchimicus in multis est utilis in medicina, sed in aliis est ita tristabilis quod in eius via infinitissimi perierunt," Lilium medicine, I.23,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

in MS BM Harl. 3698, fol.16r.

59. See the excellent article of Michael McVaugh, "Quantified Medical Theory and Practice at Fourteenth-Century Montpellier," Bulletin of the History of Medicine, XLIII (1969), 397-413.

60. "Proportiones autem sine numeris cognoscere non possumus," De gradibus, ed. Julius Pagel, Pharmaceutische Post, XXVIII (1895), 182.

61. Sarton, who preferred the spelling compotus (from componere) over computus (from computare), described the Compotus manualis of one Magister Anianus, who probably lived near Montpellier (Aniane) in the second half of the 13th century, Introduction, II, 992 (with bibliography). See also ibid., p. 964 for a Compotus ascribed to Roger Bacon.

62. See De pronosticis, V.8: "Docet computare septimanam medicinalem et mensem." It may be added that there is extant at least one 14th-century manuscript of a Ratio computandi per digitos, which may be by Bernard: MS Cambridge University Library Mm.IV.41, fol.100r, incipit, "Hic incipit prima computatio, VI nonas Aprilis signat," ℣K 620.

63. "Sed quia forte medicus ad equationem omnium planetarum scire non potest, ideo ut possit se excusare, tenetur habere tabulam adequationis lune, quo ad medium motum,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

qui communiter tenetur habere, et habeatur unum et rectum calendarium lunationis: sine autem his non est medicus," De pronosticis, MS VAp 1174, fol.101r.

64. "Si igitur ... vultus inferior subiectus est vultui superiorum, tunc medicus debet scire aliqua de naturis superiorum. Ista autem pauca posui non ad alia nisi quod quilibet tenetur scire suo posse naturam superiorum, aliter enim non poterit esse perfectus in sciencie predicendi nec eciam operandi," ibid.

65. See the aliqua and suo posse in n.64 and the ut possit se excusare in n.63 above. Also, when Bernard distinguishes between the astronomer's and the physician's definition of the seasons, it is apparent that the physician's is far less sophisticated. For example, spring "secundum intencionem astronomorum incipit a principio Arietis et durat usque in finem Geminorum, continetque tria signa ... Secundum tamen intencionem medicorum, illud totum tempus est vernale in quo arbores incipiunt pullulare et florere, et terra germinare," ibid., II.1, fol.80v.

66. On critical days of acute diseases, see De pronosticis, V.6: "Docet investigare naturam dierum criticorum per racionem sumptam a quadris lune," and V.7: "De natura et complexione superiorum quantum pertinet medico";

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

on pregnancy, see Lilium medicine, VII.16: "De difficultate partus"; and on phlebotomy, see De phlebotomia, XIV: "De diebus egyptiacis et kalendis et lunacionis et similibus que considerantur in flebotomia."

67. "Aliqui sunt ita maliciosi quod quando fetidius est et turpius [sc. coitus in propatulo], tanto magis delectantur, et de hoc facit mencionem Aly.supra centiloquium et sunt illi in quorum nativitate dominabitur Saturnus etc.," Lilium medicine, VII.1, in MS BM Harl. 3698, fol.89r.

Haly ibn Ridwan's authorship of the commentary on the Centiloquium was questioned by Lynn Thorndike, "Manuscript versus Incunabule," Mélanges Louis Halphen (Paris, 1947), p. 22, and, on different grounds, by Ed McCarthy, "A Lexical comparison of four 12th-century versions of Ptolemy's Centiloquium from the Arabic," paper delivered at the International Congress of Medieval Philosophy (Madrid, August 1972). Mr. McCarthy, under the guidance of Professor Richard Lemay, suggests Abu Dja'far (Cairo, d. 943) as the real author. One Latin translation of the commentary was made by Hugh of Santalla (Spain, fl. 1150).

68. "Conveniunt et sapienciores astronomi quod flebotomia non est facienda luna existence in geminis," De phlebotomia,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

MS VAp 1174, fol.22v. On the theory that the "vultus inferior est subiectus vultui superiorum," Bernard gives some of the examples which the "sapientes egypcii narrant," De pronosticis, fol.100r.

I am indebted to Professor Lemay for his helpful information which led me to the Centiloquium and Albumasar (Abu Mash'ar, ninth century) as likely sources of Bernard's notions of radix and vultus superior and inferior, eu- and infortunum, and lunar influence on critical days. It may be noted that, with regard to critical days, the Centiloquium uses an interesting combination of geometry and astronomy, which Bernard appears to ignore. However, see n.80 below.

69. For a more elaborate discussion of this translation, see chapter V below.

70. "Inchoatus est enim liber iste in preclaro studio montis pessulani, anno incarnacionis domini millesimo CCC° vij° xxij° die februarij, luna celebrante synodum cum sole versus vij gradum piscium," in MS VAp 1174, fol.10r. This dating is discussed by Ynez O'Neill, "The History of the Publication of Bernard of Gordon's Liber de Conservatione Vitae Humanae," Sudhoffs Archiv, XLIX(1965), 271.

71. De armillis; see chapter III,p.121 above.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

72. "In corporibus supercelestibus, ubi calculans ponit planetas moveri per epicyclos et licet secundum veritatem non sit sic, tamen ad equationem eorum habere non possumus, nisi attribuatur eis motus epicyclorum," De gradibus, ed. Pagel, p. 221.

73. The physician should have "perfectam noticiam omnium proporcionum musicalium," Liber de conservacione vite humane, III. De pulsibus, in VAp 1174, fol.52r.

74. Thus, for the manic and melancholic patient " debent ibi esse instrumenta musica, et breviter omnia que letificant animam," Lilium medicine, II.19, in MS BM Harl. 3698, fol.30v; for lovesickness "dicit Avicenna quod aliqui plus moventur per instrumenta musica," ibid., II.20, fol.31r; and for lethargy, ibid., II.12, fol.27r.

75. "Mores puerorum immutantur propter audita, inspecta, et malas musicas," De pronosticis, II.5, in MS VAp 1174, fol.82v. And "dicit Galen in de regimine sanitatis quod inspectus et auditus et mala musica mores puerorum corrumpunt," Regimen sanitatis, V, in MS VAp 1174, fol.57v.

76. "Nonne videmus in motibus manuum, quod est mirabile in illis, qui tangunt instrumenta, quoniam ex consuetudine digitus aliquando movetur in melodia et ad cordam istum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

preter hoc quod intelligat illud, quod dirigitur et movetur, quia aliquando recte melodiabit et cum aliquo loquetur. Ecce igitur quomodo digitus moveatur ex consuetudine ex se ad locum tamquam si haberet intellectum," De pronosticis, II.5, in MS VAp 1174, fol.83r.

77. It is worth noting that Bernard, in his above mentioned list of the physician's qualifications, omits Haly Abbas' emphasis on the necessity of a knowledge of music for the physician, which had been cited by such authors as Robert Grosseteste and Roger Bacon. See Kibre, "The Quadrivium," p. 186.

78. Cartulaire, No. 68, cited and discussed above, chapter II.

79. Bernard's ideas on natural science will be examined further in chapter VI below.

80. In numerous cases Bernard cites the specific chapters in these Aristotelian works. In addition, he appears to quote Aristotle's De caelo et mundo in his statement that the "radix superior adheret vie uni et ordini uni sicut sunt motus orbium," Regimen sanitatis, prol., in MS VAp 1174, fol.53v (but Bernard here also refers to Galen's De criticis diebus). See also n.68 above.

81. For example, "nichil est in potencia ad animam nisi quod sufficienter actum et passum est ab anima," De

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

marasmo, in MS VAp 1234, fol.136r; "quod est sicut principium formale non erit materiale...," ibid., fol. 135v. It is quite possible, however, that Bernard had gained most of this knowledge through Galen, Avicenna, and Albertus Magnus (for the latter see note 83 below).

82. "Alveredus scribit cor esse vite domicilium et vitam consulens sicut ordinavit deus," De pulsibus, in MS VAp 1174, fol.26v. The reference is probably to Alfred's De motu cordis (ca. 1210), for which see TK 96 and 1020; Thorndike, Magic, II, 195; and Sarton, Introduction, II, 561.

83. "Omnem potenciam precedat actus secundum intencionem domini Alberti in de nutribili et nutrito," Lilium medicine, VII.14, in MS BM Harl. 3698, fol.95r. For De nutrimento et nutribili, see TK 98 and 365.

The vis imaginativa never rests "secundum intencionem domini Alberti in phisica sua," Lilium medicine, II.15, fol.28v. Since the incunabulum ed. (Venice, 1498), fol.29r, has "in philosophia sua," this reference is probably to Albert's Philosophia pauperum (sive isagoge in libros Aristotelis de physico auditu, de caelo et mundo, de generatione et corruptione, de meteoris, et de anima), "a general summary of Aristotelian physics" according to Sarton, Introduction, II, 937.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

It is interesting that Albert (d. 1280) is the only author whom Bernard calls "dominus."

84. Aristotle's Ethics was also an important textbook in the arts curriculum at the University of Toulouse in 1309: see Paetow, The Arts Course, pp. 96-97.

85. For example, Gilbert de la Porrée, in J. Migne, Patrologia Latina, 164, col.1316; Hugh of St. Victor, ibid., 175, col.10. Peter Abelard called Seneca "ille maximus morum aedificator," Dialogus, ed. Victor Cousin, Petri Abaelardi Opera, II (Paris, 1849), 675. Reginald O'Donnell notes "that often Ethics was included in the study of grammar," in "The Liberal Arts in the Twelfth Century with Special Reference to Alexander Nequam (1157-1217)," Arts libéraux, p. 130.

86. "Seneca lingua angelica dicens cibus famem sedet, potus sitem extinguat...," Regimen sanitatis, VI, in MS VAp 1174, fol.59v. "[Discipulus] non studeat in curiositatibus ubi modica aut nulla est utilitas et labor magnus et huius curiosi sunt qui student in profetiis inveniendis et similibus, et de hoc Seneca, quare te torques in illa questione quam subtilius est contendisse quam solvere," ibid., fol.59r.

87. "Prima condicio... quod sit [magister] subtilis et ingeniosus ut sciat interpretari scripturas... 2.quod sit bone vite et honeste conversacionis... 3.quod in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

docendo sit humilis non superbus... 4.quod sit eloquens... 5.est pericia docendi; unum certum signum hominis scientis est quando omnes cum legit intelligunt eum...," ibid.

88. "Prima et principalis [condicio] quod dominum deum diligat et timeat... 2.quod sit bone vite et sancte conversacionis, quoniam sicut videmus quod volatilia ad se similia conveniunt [birds of a feather!] sic veritas ad eos qui operantur eam... 3.quod nullomodo sit superbus... 4.quod non sit gulosus... 5.quod non sumat vinum ultra temperamentum... 6.quod sit humilis... 7.quod libenter et frequenter oret et de hoc Augustinus, oracione melius solvuntur dubia quam inquisicione alia. 8.quod in legendo et studendo non nimis velociter transcurrat... 9.quod non studeat in curiositatibus... 10.super omnia vitet ocium...," ibid.

89. "Medicus tenetur scire mores laudabiles et illaudabiles et ita saltim in relacione ad corpus magnus moralis medicus debet esse," ibid., fol.60r. For Bernard's views on the physician's ethics, see chapter VI below.

90. "Doctrina doctoris in dissipulum sancta et illuminata sit. In primis ergo magister instruat puerum quid liceat quid expediat... de hoc Hugo de Sancto Victore,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

dissiplina est membrorum omnium motus ordinatus... 2.quod puer non habeat gestus indissiplinatos... 3.circa ornatum vestium sc.non queratur nimia superfluitas... 4, 5, and 6.oris custodia... 7, 8, and 9.de cibo..., 10.de continencia et castitate...," ibid., fol.59r-v.

91. "Prosper Aquitaneus in libro de vita contemplativa cum apparet [?] debet sermo docentis ut ab intelligencia sua nullos excludat quamvis imperitos," ibid., fol.59r. Two observations on this quotation seem pertinent. First, that Bernard cites De vita contemplativa to support not a moralistic but an "academic" guideline, namely that the teacher should be intelligible. Secondly, Prosper's Epigrams appeared in the traditional curriculum, but not (as far as I could determine) his De vita contemplativa; see Curtius, European Literature, passim, and R.R. Bolgar, The Classical Heritage (New York, 1964), p. 257.

92. Chevalier, Sources historiques; Topo-Bibliographie, col.1326.

93. See above, n.88, point 7.

94. "Incipiat dicere horas dominicas, et statim dormiet," Lilium medicine, II.18, in MS BM Harl. 3698, fol.29v. It may be noted that "horae dominicae" apparently refer to the monastic prayers of the Divine Office.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

95. "[contra concupiscenciam] primo inducantur ieiunia, accidencia terribilia et flagella," ibid., VII.3, fol. 90v.

96. "Aspectus mulieris inter omnia corrumpit summe mores," Regimen sanitatis, prol., in MS VAp 1174, fol.53v. "In primis instruantur [puelle] in castitate demum in humilitate demum in pietate, demum summe et mirifice in taciturnitate, et quod sint quasi silvestres," ibid., VI, fol.60r. His further guidelines for the upbringing of girls are quite interesting, but too long to cite here.

97. "Amor est mentis insania, qua animus vagatur per inaniam cerebri, doloribus permiscens dulcia gaudia," Lilium medicine, II.20, in MS BM Harl. 3698, fol.31v. The pr.ed. (Venice, 1498) has pauca instead of dulcia.

98. If the patient has gonorrhea because of too much sperm [sic], "nubat in christo, quia melius est nubere quam uri [I Cor. 7:9]," ibid., VII.3, fol.90v.

99. Bernard relates the death of a colleague "quia gallinis tritis multum replebatur a mulieribus, quia vix potest aliquis bene dietari ubi mulieres habent potestatem," ibid., II.12, fol.27v.

100. "Deinde utatur ista decoctione de qua dicunt boni socii quod facit mulierem deficere sub viro," ibid., VII.1, fol.89r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

101. For example, the religious are credited with a better memory "propter quietem anime et dimissionem negociorum secularium," ibid., II.12, fol.27v. A prescription for sharper vision "valet lectoribus et monachis ut sciant legere literas minutas," ibid., VII.21, fol.98v; a special ointment against lice is said to be "congruum religiosis," ibid., II.9, fol.23v.

102. "Pauperes enim et religiosi qui multiplicant cibaria flegmatica et melancholica, habundant in pediculis, similiter homines ferales qui de cultu sui corporis modicum curant," ibid.

103. "Si fuerit [paciens] debilis, turpis aspectus, timidus, melancolicus, sine omni charitate, et sompniret se videre diabolos et monachos nigros et transire per loca angusta et videre terribilia...," Liber pronosticorum, I.3, in MS VAp 1174, fol.75v.

"[Paciens] habet fantasmata diversa et terribilia quia videtur sibi in sompno quod videat demones aut monachos nigros aut suspensos et mortuos," Lilium medicine, II.18, in MS BM Harl. 3698, fol.30r.

104. "Si aliquam medicinam volumus experiri in corpore humano, quod prius experiamur in avibus et postea in brutis animalibus et postea in hospitalibus et postea in fratribus minoribus et postea in aliis per ordinem, quia si forte esset de genere venenorum interficeret,"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De gradibus, ed. Pagel, p. 143.

105. De conservacione vite humane, prol., in MS VAp 1174, fol.10r. For the other works see chapter V.

106. "Incipit tractatus de gradibus ordinatus a magistro b. de gordonio, decano medicorum in almo studio montis pessulani anno domini M°ccc.iij," in MSS Erfurt Amplonianum F 236, fol.50v, and Q 227, fol. 304, both 14th-century; cited by Karl Sudhoff, "Zum Schriftstellerei des Bernhards von Gordon und deren zeitlicher Folge," Archiv für Geschichte der Medizin, X (1917), 179-180. Also in MS VAp 1083, a.1458, fol.321v: "est finis tractatus de sterilitate editus a bernardo de gordonio decano preclari studii montispessulani."

107. Sonoma Cooper, The Medical School of Montpellier in the Fourteenth Century (New York, 1930), p. 173.

Yet the same author also states that Bernard "was not reading in the school at the time," ibid.

108. Astruc, "Bernardus Gordonius," p. 181.

109. See chapter II above.

110. "Ego feci apportari [poligonia] de viridario serenissimi regis maioricarum," Lilium medicine, III.3, in MS BM Harl. 3698, fol.38v.

111. "Quedam comitissa venit [leprosa] ad montem pessul-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

anum, et fuit in fine in cura mea, et quidam baccalarius in medicina, qui ministrabat ei, iacuit cum ea, et impregnavit eam, et perfectissime leprosus factus est," ibid., I.22, fol.13r.

112. "Quia nobiles et divites frequenter laborant dolore renum, ideo iterum totum magis particulariter prosequamur et subiungamus hic quoddam experimentum quod accidit de facto," ibid., VI.8, fol.84r.

"Quoniam si medicus talia (viz,bad breath) pateretur valde, esset ignominiosum, et potissime quando cum nobilibus conversatur," ibid., III.15, fol.43v.

113. For more on Bernard's critical attitude see chapter VI below.

114. Michael McVaugh, "A Note on Relations Between Two Montpellier Masters: Arnold of Villanova and Bernard Gordon" (typewritten, Chapel Hill, N.C., 1971).

To Bernard's description of depressive mania (Lilium medicine, II.19), which Professor McVaugh analyses, another possible allusion to Arnold may be added. Bernard warned, namely, that the scholar "non studeat in curiositatibus ubi modica aut nulla est utilitas et labor magnus et huius curiosi sunt qui student in profetiis inveniendis et similibus," Regimen sanitatis, V, in MS VAp 1174, fol.59r (italics mine).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

115. McVaugh, "A Note on Relations."

116. "... medici ut plurimum sunt negligentes in aspiciendo sanguinem extractum per flebotomiam," De flebotomia, VIII, in MS VAp 1174, fol.20r. "... patet arrogancia et ignorancia quorundam qui dedignantur et nauseant iudicia urinarum," De urinis, I, ibid., fol.28r.

117. "Ymmo quod est magis abhominabile, medici nostri temporis non curant scire regimen sanitatis quia videtur eis quod non sit ibi lucrum sed in curacione morborum et potissime febris sunt bene solliciti," Regimen sanitatis, XVII, in MS VAp 1174, fol.72v.

118. "Fuit mortuus magister noster ex litargia et erat 40 annorum, colericus adustus, et erat ibi turba magistrorum, et omnes convenerunt quod aperirentur emorroydes; et cyrurgicus solus nullo magistro existente aperuit, et extraxit ut dicitur sanguinem in nimia quantitate, intantum quod semper processit debilitando donec mortuus est," Lilium medicine, II.12, in MS BM Harl. 3698, fol.27v.

119. In the fourteenth century, Bernard was cited by such authors as Henri de Mondeville, John of Gaddesden, Jordanus de Turre, Jean de Tournemire, Guy de Chauliac, and Gerard de Solo.

See also appendix II below, for the manuscripts of Bernard's works.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CHAPTER FIVE

BERNARD'S WRITINGS AND THEIR RELATION TO THE MONTPELLIER CURRICULUM

The most complete bibliographical study of Bernard's writings was published in 1917 by the noted historian of medicine, Dr. Karl Sudhoff.[1] On the basis of manuscripts Dr. Sudhoff established the chronology of Bernard de Gordon's works but, because of World War I, his research was restricted to German libraries. His article, moreover, which brought up to date the pioneer study by Baron von Töply,[2] has itself become out of date in view of more recent manuscript studies and the publication of such valuable guides as Wickersheimer's Dictionnaire biographique, Thorndike and Kibre's Catalogue of Incipits, and so on.[3] These have supplemented Sudhoff's earlier work and have pointed up the need for a bibliographical study that will broaden and update his findings. Such a study should serve also as the foundation of a more comprehensive knowledge of the scope of Bernard's teaching

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and, in all likelihood, of a more accurate evaluation of him as a representative of the Montpellier academic tradition.

The Gordonian writings fall into two groups, one comprising works about whose authorship there is no reasonable doubt, the other comprising treatises that have been attributed to Bernard.[4] The first group can be treated in chronological order since, with only two exceptions, these works are dated, either relatively or absolutely, in the manuscripts. A relative date, for example, is given for Bernard's first published tract,[5] De regimine acutorum morborum, which he composed "after eleven years of continuous lecturing," that is in 1294.[6] This brief treatise appears based on the Hippocratic regimen of acute diseases, which was part of the curriculum at Montpellier.[7] In this work, Bernard set forth the general principles of the treatment of critical or acute fevers, leaving the "wise" and "inventive" physician to construct on this framework his regimen for each individual case.[8] The treatise comprises three parts, of which the first contains a description of the "correct administration of food and drink, with regard to quantity, quality, and sequence."[9] The second part relates to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

evacuation by phlebotomy and by such cathartics as rhubarb and black hellebore. The third and last part contains the "digestives which Hippocrates lists, namely wine, hydromel, oxymel, water, and baths."[10] While the dependence of this regimen on its Hippocratic model is evident, Bernard seems to have made a special effort not only to organize the subject matter more logically than it was in the Hippocratic regimen, but also to document it with references to the later medical tradition. In addition to Hippocrates, he also drew on other authorities, such as Galen, Avicenna, and Averroes, although he did not always name his sources. Thus, Hippocrates is referred to only three times, Galen twice, and Avicenna and Averroes once each. On the other hand, Bernard also gave credit to "old wives," from whom he had learned a particular remedy; however, they had taught him "more by way of empirical knowledge (per viam experimenti) than by reason."[11] He drew attention, moreover, to instances or cases in which "many have been mistaken" either because of insufficient insight or because of lack of anatomical knowledge.[12]

Upon completion of his Regimen acutorum Bernard was apparently not satisfied with the quality of his first attempt at writing. He found the treatise "diffuse and

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

lengthy," whereas "all prolixity is the stepmother of truth." Therefore he appended, "by way of an epilogue," a Compendium de regimine acutorum.[13] This Compendium, which he dedicated to his confrere Master Johannes de Confluente,[14] may actually have predated the Regimen acutorum itself. According to a colophon in some manuscripts, Bernard had composed the Compendium while he was still a bachelor, at the time of his cursus primus.[15] In any event, this synopsis of the regimen, like the preceding treatise, is firmly guided by the Hippocratic tradition. Bernard begins his compendium with a list of some errors of physicians. The worst error, he asserts, is to introduce rapid changes in the regimen, since "all sudden change is harmful to both the healthy and the sick."[16] Hippocrates, too, had stated in his Regimen that "the greater part of my discourse has related to changes" and their effect on health.[17] Next, Bernard summarizes the correct diet, which consisted chiefly of ptisan or barley water, a truly Hippocratic panacea.[18] Then follows a brief description of the digestive beverages and of the purgations by baths and phlebotomy. In one case, Bernard contrasted the advice of Galen, who found phlebotomy safer, with that of Hippocrates, who preferred purgative

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

medicines. Moreover, Bernard adjusted Hippocrates' prescription to fit his own climate.[19] He concluded his tract with an apologetic plea, "if I have not assembled completely the sayings of Hippocrates, I ask forgiveness for the omissions."[20] Although the Compendium de regimine acutorum may have sacrificed completeness to brevity, it nonetheless provided a very practical guide for the physician, and it apparently became quite popular. Bernard himself, five years after the publication of the Compendium, proudly acknowledged that it had "come into the hands of many."[21] Moreover, with the successful reception of this work, Bernard was launched on a fruitful writing career, which he seems to have combined with his teaching or university lectures.

Bernard's next work, the Liber pronosticorum, was completed on 25 January 1295.[22] Although he was probably only in his late thirties at the time, he conceived this book as "a solace for my old age."[23] The apparent contradiction between this statement and his age is resolved, however, in the same treatise, since Bernard defined "old age" as starting around thirty five.[24] The Liber pronosticorum or De crisi et criticis diebus was based on works of the same titles by Hippocrates and Galen. These works,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

too, were prescribed textbooks in the Montpellier curriculum.[25] However, in his treatise, Bernard alluded to Hippocrates only once, and named Galen twice. He mentioned no other authorities by name. His failure to do so is somewhat surprising in view of the fact that, as he stated in later works, Bernard intended this treatise as a "brief compilation" in which he "faithfully brought together the sayings of Hippocrates, Galen, Avicenna, and others."[26] The most noteworthy feature of the Liber pronosticorum is the logical organization, by which Bernard brought order and clarity into the "arduous and difficult science of predicting" the course of a disease.[27] In this compilation, as in his preceding Regimen acutorum, Bernard was again concerned with brevity. He avoided the detailed treatment of several topics, either because he planned to discuss a particular topic in a later treatise,[28] or simply because he feared the embarrassment of a lengthy book that "would not escape the vituperation of the critic."[29] The result is a work that, while about ten times as long as the Regimen acutorum, concisely set down the basic principles of prognostication.

Bernard's first consideration was to determine the nature of the diseases under scrutiny because, "as

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

prognostication precedes treatment, the knowledge [of the disease] precedes prognostication."[30] The diseases to be considered are divided into the fevers (tertian, daily, and quartan), the compound diseases, and abscesses. In a special chapter Bernard unraveled the differences between fevers. The second part of the treatise relates to the prognostic importance of each season, as well as of the location or region and the climate, in addition to the patient's age, habits, and "complexion" or constitution.[31] In the third part Bernard defined the nature, length, and intensity of the paroxysm; while in the fourth part he gave instructions on how to prognosticate from the virtutes. By these virtutes, to each of which he devoted a chapter, Bernard meant the patient's mental faculties (his thinking process, imagination, and memory), as well as his five senses, his appearance and his behavior (movement, sleep), and his body functions (breathing, pulse, excretions , and so on). The last part of Bernard's Liber pronosticorum relates to the nature and prediction of crises and critical days. This portion of the treatise is of particular interest because it centers, especially in the latter half, on medical astronomy and astrology.[32] Within the last four chapters

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of this section, Bernard determined the critical days on the basis of the lunar calendar, and described the "nature and complexion of the heavenly bodies insofar as these pertain to the physician." He also gave the rules for computing the "medical week and month." In the final chapter he explained the difference between the "solar month" and the "lunar month": the former, based on a convenient division of the solar year, is followed in the "vulgar" or ecclesiastical computation; the latter, however, is based on the moon's course and should be observed by the physician with regard to critical days.[33] These chapters, in which Bernard lucidly summarized the theory and practice of medical astrology, could serve as convenient guides to the physician who was less well versed in the subject. Their usefulness in this regard may explain why they seem to occur as individual tracts in several manuscripts.[34] Bernard appeared to have drawn his materials from late pseudo-Hippocratic and pseudo-Ptolemaic or Hermetic sources,[35] although the Hippocratic writings themselves had earlier considered the connection between the heavens and critical days.[36] Bernard's treatment is, however , remarkable not only for his sober concern with medical prognostication but also for his

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

omission of the horoscopic techniques and magical trappings that characterized Hermetic and pseudo-Ptolemaic astrology.[37]

In view of the above, one is therefore surprised to find that, shortly after the composition of his Liber pronosticorum, Bernard occupied himself with a purely horoscopic work that contains little medical material. On 22 December 1295, in the thirteenth year of his teaching, he translated the Tractatus de reductione geomancie ad orbem.[38] In the opening phrases this treatise is described as "the secret of the great God revealed to Ptolemy, king of the Arabs."[39] We may assume that Bernard made this Latin translation from the Provençal,[40] since there is no evidence that he was familiar with any other language. The original text, however, appears to have been in Castilian, a language which Bernard may have known, since the initial model interrogatio refers to the King of Castile.[41] In any event, the fact that Bernard took the time to latinize this vernacular work seems to indicate that he wanted to make it more widely known or more easily available to scholars.[42] Its value was less scholarly than practical, however, as it was designed for calculating future or hidden events such as

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the weather, the outcome of a voyage, or the whereabouts of stolen property. The Reductio geomancie almost falls in the category of "ready-reckoners," which common practitioners often wore from their belts.[43]

In the introduction to the treatise, the author explains the complex modus operandi of the "sacred science" of geomancy,[44] and warns that any questions to be answered must be about "a licit and honest matter" and without the intention to deceive.[45] Moreover, the author continues, since the stars are governed by God, the consultation ought to begin with a prayer. The formula for this prayer reveals the Christian and somewhat gnostic origin of the treatise.[46] The first half of the work is copiously illustrated with tables and charts. It also contains definitions of the properties of the elements used in the calculations. Thus, each of the twelve "houses" through which the heavenly bodies pass, is given its own sphere of influence over certain groups of events, for example, birth and travel (first house), gain and loss (second house), quarrels and wars (seventh house), and promotion and demotion (tenth house). Next, each of the twelve constellations and each of the nine "erratic planets" is described as to its complexion, gender,[47]

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

strength, term,[48] and geomantic symbol.[49]

The second half of the treatise, which contains the solutions for over forty particular questions, differs markedly from the first part. The answers to the questions are determined by the conventional astrologers' art, according to the positions of the planets and signs in each zodiacal house, without any reference to geomantic symbols or calculations. Whatever may be the explanation of this discontinuity of the two parts, another feature of the work is more directly relevant to the present study. Some of the inquiries in the second part of the Reductio geomancie pertain, directly or indirectly, to medicine. Within the latter category are such questions as, whether a woman can conceive, whether she is pregnant, whether the child will be a boy or a girl, and whether the newborn infant will live. Two other questions are, however, of more vital concern to the physician, namely whether the patient will die and, particularly, the question "whether or not it is good for the physician to agree to treat a patient or even to go and see him."[50] Since physicians usually dreaded the chance of being called for a hopeless case,[51] those two questions may have stirred Bernard's interest in the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Reductio geomancie.

After translating the above pseudo-Ptolemaic horoscope, Bernard apparently waited for almost four years before producing another work. In July 1299[52] he completed his "arrangement" of the methods of treatment and cure of diseases, De decem ingeniis curandorum morborum, probably at the request of some of his colleagues.[53] The materials for this treatise were, according to the statement in the manuscripts, "extracted from the sayings of Galen in the De ingenio and especially from the final chapter of the twelfth particula of that work, and from the first chapter of the fourth fen of the first book of Avicenna's Canon."[54] This very detailed acknowledgement, in addition to the brevity of the work itself, might tempt one to presume that it was merely a summary of two specific chapters in the works of Galen and Avicenna. However, a careful inspection of the contents reveals references to at least five cited works of Galen, as well as several statements drawn from Hippocrates and Haly Abbas.[55] To these, moreover, Bernard added several of his own ideas. The latter comprised the necessary qualifications of the physician and his assistants, together with a few personal observations that strikingly illustrate Bernard's

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

keen powers of perception and his knowledge of the local area. For example, when he repeated Galen's prescription of aromatics for the purgation of the brain, Bernard recommended "the peach, when not yet red, especially the kind found in Montpellier."[56] Also, with regard to a healthy environment he advised the physician to "check whether the patient was disturbed by an adjoining shop occupied by a carpenter, hammerer, tanner of hides, melter of tallow, or by persons who work with sulfur and the like."[57] Thus, Bernard adapted to his immediate locale the doctrines of Galen's De ingenio sanitatis, a work that held a prominent place in the Montpellier curriculum.[58]

Moreover, in the aforementioned De decem ingeniis, as in his earlier works, one of Bernard's more striking contributions is his arrangement or organization of the subject matter. He himself later referred to this work as a "table of methods."[59] He divided the treatment of diseases into ten methods (ingenia) based on different "approaches" (consideraciones) or aspects, such as, for example, a knowledge of the specific disease and its medication, and attention to the patient's "complexion." Another method of treatment was governed by the consideration of the organs and their qualities, namely strength,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

composition, location, and sensitivity. Bernard further subdivided these principal categories or methods and placed each of them under particular rules, as a systematic guide for the diagnosing physician.[60] This rigid arrangement, apparently intended as a handy resume of medical theory as well as for a diagnostic checklist, had one drawback. In his endeavor to distinguish between categories and their subdivisions, Bernard seems to have been so carried away by subtle logic and conceptualization, as to make his treatise resemble an exercise in scholastic sophistry. Nevertheless, the De decem ingeniis is interesting for its combination of deductive reasoning and practical application.

A similar combination of practical concern and theoretical approach characterizes the Tractatus de gradibus, which Bernard "arranged" in the first half of 1303.[61] This work deals with the physician's practical problem of determining the probable effect of each specific drug that he wished to administer. The normally knowledgeable physician, even when applying the traditional principle that "contraries cure," and classifying each drug according to its primary qualities (hot or cold, dry or moist) and its specific properties (for example,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

constrictive or laxative),[62] needed, nonetheless, to know the intensity or degree of the drug's effect. Until the thirteenth century this problem had been approached empirically, but Bernard now elaborated a "precise and detailed doctrine" of gradation.[63] He realized that, while the intensity of simples could be learned from experience, "that process would be too lengthy" for compound medicines, "and meanwhile the patient would be put in great jeopardy." Hence, Bernard held, it was "necessary to have a rule of thumb and a guide which the physician could readily utilize for compounds." Such a standard could be found "only by reason."[64]

The standard or rational guide, developed by Bernard in his De gradibus, consisted of a mathematical theory, namely the quantification of medicinal qualities.[65] Bernard did not claim to have invented this theory but admitted that, so far as he knew, the science of gradation was founded by four illustrious men, namely Galen, Jacob Alkindi, Averroes, and Master Arnold of Villanova. Appropriating a phrase from Saint Paul, Bernard humbly added that, although unworthy, he had been given the honor of "collecting and, in a way, disclosing the secrets" of this science.[66] Only a few years earlier Arnold of Villanova had indeed

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

formulated a theory of gradation in his Aphorismi de Gradibus.[67] While Bernard deferred to his colleague as a founder of the science, his own treatise was, according to Professor McVaugh, "intended to bring the abstruse Aphorismi down to a less technical level of general application."[68] In addition, Bernard provided answers for the scientific objections that might have been raised against Arnold's system, particularly the objection that a solid experimental foundation could never be established for gradation. Moreover, in the first part of his Tractatus, which was "full of bitter sadness for the intellect,"[69] Bernard questioned the alleged dilemma between reason and sense-experience. With emphatic irony, or perhaps with genuine emotion, "for love's sake," he asked how a rational doctrine of gradation could possibly be formulated without an empirical basis, "nisi solum per experimentum."[70]

The second part or doctrina of the De gradibus, which is avowedly "based on Galenic roots," proceeds by the empirical method, "per viam experimenti."[71] It lists five general conditions and five specific rules to be observed in conducting an experiment. Thus, for example, the ingredient to be tested should be "free of any accidentally acquired property," otherwise "the experiment would

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

be fallacious."[72] In the third and final part of the treatise, Bernard described, in accordance with the above mentioned "founders," the detailed doctrine of gradation and the calculatory techniques to be used. Where pertinent, he also gave concrete examples, such as a description of the strength or calefacient effect of various wines. It is, in this regard, of particular interest to note that he considered "warm in the fourth degree" not only the aqua ardens or fire water, but also certain wines from Cyprus and Italy, while he thought of the French wines as warm only in the first degree or "perhaps cold rather than warm."[73]

The Tractatus de gradibus, in addition to his earlier treatises, provides substance for the observation that Bernard contributed much of his own thought. In fact, he himself asserted that it is the mark of "a very poor mind" simply to copy what one found.[74] Perhaps, therefore, he should not be taken too literally when he modestly calls his own works "compilations" of the sayings of other authors. The same observation may be applied also to his Practica seu Lilium medicine, which he began in July 1303, after his twentieth year of teaching.[75] The Lilium may be considered Bernard's magnum opus because it was not only

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the longest of his works but also the most famous, as may be inferred from the number of manuscripts, early printed editions,[76] translations,[77] and its occurrences in university curricula and in catalogues of private libraries.[78] Bernard himself declared, in his prologue to the Lilium, that he intended "to consider some easy, common, and useful matters for the benefit of the humble, in other words to compile a book about medical practice."[79] He emphasized that he was "not ashamed to repeat for the humble what is commonly said about practice."[80] This emphasis on humility was not merely the rhetorical captatio benevolentiae of a classical prologue,[81] but an echo of the so-called Hippocratic tradition. For example, in the treatise On Ancient Medicine, attributed to Hippocrates, there is the assertion that "whoever treats of this art should treat of things which are familiar to the common people."[82] Moreover, Bernard apparently destined his Lilium for the young and inexperienced physician,[83] and he referred the advanced reader to his more specialized works for several topics.[84]

Hence, in view of Bernard's stated purpose and procedure, it seems unfair to charge that the Lilium "lacks depth and thoroughness"[85] or that it "does not distinguish

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

itself anywhere by anything new."[86] On the contrary, while one may be skeptical as to the originality of alleged "firsts" in this compilation, one may also be appreciative of their appearance in this context. For example, some recent historians have credited the Lilium with the first mention of eyeglasses in a medical textbook.[87] Others have praised Bernard's originality in his application of a truss for hernia,[88] and in his diagnosis of epilepsy in general and petit mal in particular.[89] However, whether or not these were original with him is uncertain. The originality of the Lilium, as well as the reason for its popularity, would seem to lie in its lucid conciseness and in the arrangement of its subject matter. Bernard frequently reminded his reader that "we are concerned with brevity."[90] Desirous of keeping his work brief as well as practical, he avoided speculation on several questions.[91] Furthermore, he seemed aware of the fact that it would be futile to attempt complete coverage of the individual symptoms, circumstances, and prescriptions in given cases, since "according to Galen not everything can be denoted by specific terms."[92] Bernard, therefore, asserted that, if anything had been omitted, he would leave it up to "the kindness and

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

diligence of the reader to supply it."[93] Finally one might suggest that it seems somewhat unkind to blame the Lilium for superficiality and "fondness for 'shot-gun' prescriptions,"[94] when Bernard explicitly stated that he had left the filling in of particulars "up to the conscience of the practising physician."[95] Moreover, he continued, since he offered here only a "doctrine of practice," the reader should be wise and judicious enough to adjust the quantity and quality of prescriptions to each individual case.[96] In one instance Bernard even admitted that he had, "for the sake of brevity, not kept the usual arrangement."[97]

As a rule, however, Bernard was religiously consistent in arranging his subject matter because he believed that "it would not be proper (decens) to put anything just anywhere ."[98] The insistence upon a logical organization may indeed be considered his foremost contribution in the Lilium. The work is divided into seven particulae of which the first, dealing with fevers, is by far the longest. The disproportionate length of this part becomes understandable if one notes that it includes pest fevers as well as such systemic diseases as leprosy and boils, and also wounds. The six other parts deal, respectively,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

with the diseases of: II. the head; III. eyes, ears, nose, and mouth; IV. liver, spleen, kidneys, and bladder; and VII. the reproductive organs. Bernard thus covered the diseases in the traditional order from head to foot.[99] The seventh part, in which also such diseases as gout and varices are discussed, concludes with an antidotary in the head-to-toe order. Somewhat surprisingly, however, the final chapter of this antidotary returns to the head with a collection of cosmetic prescriptions for women.[100]

Within almost all of the Lilium's one hundred sixty three chapters Bernard rigidly adhered to a logical subdivision into six articles. First, he gave the definition, names, and kinds of the disease. He was mindful, however, of the Galenic principle that the knowledge of the real thing is more important than arguments about its names.[101] Where pertinent, Bernard first described the anatomy of the affected organ, although his descriptions were much more detailed for external organs (eyes, ears, nose, mouth) than for the viscera. In the next article Bernard investigated the causes of the disease, "because if you do not know the cause, how can you effect a cure?"[102] He then followed with the diagnosis, or the description of the symptoms (signa), and the prognosis, or the forecast

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of the course of the disease. These two articles, the third and fourth in each chapter, were usually the shortest, although Bernard quoted Hippocrates' complaint that "ugly errors" result from the physician's ignorance of the intensity of the disease.[103] The fifth article contained the prescribed treatment, which included one or all of the following: regimen and diet, therapy (ranging from phlebotomy to psychological shock), pharmacy, and--if all else should fail--surgery. Bernard thus left the patient to the hands of the surgeon when the disease had become "difficult or almost impossible to cure,"[104] or when the treatment was "difficult, dangerous and lengthy, and required a major procedure."[105] While he went on to refer the reader of the Lilium to "the books of surgery" for wounds, fractures, and such complex operations as nephrolithotomy,[106] Bernard himself described several surgical procedures.[107] Of special interest in this regard are his instructions for the removal of a breast cancer,[108] and for the suturing of a wound.[109] Besides incisions and sutures, cautery appears also to have been the function of the surgeons,[110] whom Bernard appropriately called "restauratores."[111] He noted on the other hand, that simple bleeding could be left to the barbers.[112]

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The sixth and final article of the Lilium's chapters clarified difficult points and solved apparent contradictions between different authorities. The questions of this clarificacio are often academic and show indeed "traces of the scholastic method of instruction."[113] This is evident not only when Bernard uses the dialectical format of question-thesis-objections-answer-conclusion, but also when he occasionally ventures into such speculative problems as "whether sneezing is a natural or unnatural movement."[114] Such instances, however, constitute only a fraction of the clarifying articles, and they hardly warrant the view that the entire Lilium was "a faithful reflection of the subtle scholasticism of the age."[115]

The above allegation was taken over by several historians who also labeled the Lilium as "a characteristic Arabist textbook on the practice of medicine and typical of the scholastic subtlety and rigid adherence to dogma that was the mental attitude of the Middle Ages."[116] Since this verdict reflects on an entire era, it seems worthwhile to evaluate the Lilium in the perspective of its own period. A brief comparison may be made, therefore, with two closely related and near contemporary works,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

namely Gilbertus Anglicus' Compendium medicine or Laurea anglica (ca. 1250), and John of Gaddesden's Practica or Rosa medicine (ca. 1320).[117] The Lilium is undeniably more "scholastic" than its two English counterparts, if by scholasticism is understood the logical organization of the subject matter which has been described above. The sevenfold division of the Laurea may have inspired Bernard, who improved on it by his systematic arrangement within each chapter. Thus, for example, Bernard placed his surgical references under the pertinent therapeutics, whereas Gilbert devoted some separate chapters to surgery.[118] Gaddesden, in his turn, apparently adopted Bernard's internal organization of the chapters, but failed to adhere to it consistently.

Besides its logical organization, other and more substantive features are attributed to scholastic medicine, such as the use of syllogistic reasoning and philosophical terminology, and references to Aristotle and the Salernitan Questions.[119] These features figure far more prominently in Gilbert's Laurea than in Gordon's Lilium. Moreover, Gilbert gave more weight to authorities, since he intended primarily "to aggregate the particular sayings of major authors as those most expert in the work of healing,"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and to let the reader choose from different opinions.[120] Bernard, on the contrary, "quoted his authorities whenever he considered it expedient," and as Dr. Sarton aptly put it, "to bolster his own prestige."[121] Neither Gilbert's nor Bernard's procedure would seem to qualify for the charge of "rigid adherence to dogma." With regard to the charge of "Arabism" we may note that the authorities, quoted in the Lilium, are predominantly classical: explicit quotations from Hippocrates (60) and Galen (140) outnumber those from Avicenna (70) and all the other Arabs (30) combined. Gaddesden's Rosa, on the other hand, which uses nearly five times as many quotations as the Lilium, can be considered far more "Arabist," since Avicenna (474), Haly (98), Averroes (98) and the other Arabs hold an impressive lead over Hippocrates (120) and Galen (417).[122]

It may be of interest further to note the views of recent historians of science and medicine, as well as those of medieval physicians. Dr. George Sarton claimed that the above compendia "represent three stages in the development of the general medical textbook of those times."[123] Our summary comparison, however, seems to indicate that in several respects the Lilium was an

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

apex rather than an intermediary step in that development. This impression was shared by Dr. Paul Diepgen, who considered the Laurea a "compilation of traditions," and praised the Lilium for its "didactic and lucid presentation." He judged the Rosa "an inferior imitation of the Lilium."[124] More significantly, this modern assessment apparently agreed with that of medieval physicians, such as Guy de Chauliac, who scoffed at "the fables of Gilbert" and the "faded English Rose" of Gaddesden, but quoted some thirty times from Gordon's Lilium.[125]

Almost as monumental as the Lilium medicine was Bernard's last dated work, the Liber de conservacione vite humane, which he began on 22 February 1308[126] and apparently completed on 9 November of the same year.[127] This book comprises four parts, which in manuscripts and printed editions have often been treated as separate treatises, namely De phlebotomia, De urinis, De pulsibus, and Regimen sanitatis.[128] The most striking feature of the De conservacione is the nature of its general prologue and of the prefaces to each of its books. These introductions are much longer and more speculative than anything Bernard had written before. One might interpret this as an indication of growing scholasticism. We should, however, not

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

overlook the simpler explanation, namely that the author had become more contemplative with age. Although Bernard was perhaps only in his fifties when he composed the De conservacione, his advancing age might also account for the heavily moralizing tone of his speculation. Thus, in the general prologue he admonished his readers to spend their allotted time span "entirely in virtuous deeds." This theme, introduced in a gloss on Galen's lofty thought that "man is the prince and king of all animals,"[129] pervades the other prefaces. In the preface to the second treatise, De urinis, Bernard elaborated on another inspired Galenic thought, namely that "the search for the truth" is the most virtuous undertaking and therefore the highest road to God and to glorious beatitude.[130] He demonstrated this idea with quotations from Scripture, Aristotle, and Saint Augustine. The general tenor of the preface, which is constructed as an intricate syllogism, is that bodily health, necessary to reach complete beatitude, cannot be known without the science of uroscopy.[131] By far the longest preface, however, is that which introduces the last part of the Liber de Conservacione, namely the Regimen sanitatis. Here, skillfully blending biblical, Aristotelian, Augustinian, and Galenic ideas, and piously

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

moralizing, Bernard described the three ages of man, namely, until about fourteen, childhood, in which man leads "a life of pleasure"; until about thirty five, adolescence or youth, which is devoted to civic or political affairs; and, finally, old age, in which man leads an "angelic or divine life."[132] Bernard praised especially the third age and the contemplative life as the most blessed, while admitting that "old age is the path to death."[133] As if looking forward to the end of his own days, he concluded the preface with the following summation: "Let us begin and carefully follow these three ages from the day of birth to the final hour of death so that, after departing, we shall with God's help come rejoicing before the tribunal of the Judge."[134] He avowedly intended "to prolong somewhat" his Regimen sanitatis, in a leisurely mood that was lacking in his earlier treatises.

When we juxtapose the preface to the Regimen sanitatis with the first two parts of the Liber de Conservacione, it appears evident that a change of pace occurred during the composition of this work. The treatises on phlebotomy and on uroscopy are still characterized by the solid matter-of-factness and logical construction which we have

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

come to expect of Bernard. The De phlebotomia opens with an entire chapter devoted to the definition of phlebotomy which is gleaned from Avicenna.[135] The rest of the treatise is based primarily on Galenic works, to which Bernard often refers with the exact folio, column, and line.[136] He complains, however, that the rules for venesection were given "by Galen in a great number of places because it was Galen's habit rarely to assemble all [related] materials in one place. It is, therefore, necessary to bring the canons on phlebotomy together."[137] Some of the canons pertain to the blood-letting procedure, while others define the favorable and unfavorable times for venesection, the amount of blood to be drawn, and the particular veins to be struck. Still other canons prescribe the patient's diet. The latter point, however, is not developed, "for the sake of brevity."[138] Bernard intended also to be brief with regard to another topic related to phlebotomy, namely the diagnostic use of drawn blood, for the stated reason that he "fears prolixity and it might perhaps be somewhat beside our purpose."[139] Nevertheless, despite this disclaimer, Bernard devoted four chapters to such a diagnosis, which he found most useful "even though physicians are mostly negligent in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

inspecting the blood drawn by phlebotomy."[140]

More prevalent even than phlebotomy as a diagnostic technique was uroscopy, although it apparently had some opponents since Bernard scored "the arrogance and ignorance of those who disdain and loathe the judgements of urine."[141] His treatise De urinis might be considered a commentary on Isaac Judaeus, whose work on urines was also included in the curriculum at Montpellier.[142] Evidently, Bernard adapted this treatise to his teaching. He gave special consideration to "the young" when he described a simplified gradation of uric compositions and when he listed some special recipes.[143] Furthermore, the didactic character of the De urinis may be responsible for an apparent flaw in its composition. That is, the treatise is made up of two dovetailing halves, each of which seems to have its origin in a different teaching approach. Each chapter falls into two parts which are often only slightly connected. The first deals systematically with the elements of uroscopy, comprising the different colors, amounts, and substances of urines. In the second part of each chapter, however, Bernard either prescribed the treatment of a specific disease, not necessarily urinary, or he discussed an academic question, a dubitacio.[144] The initial question, "whether there could

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

be a science of urine," is dissected with the scalpel of subtle logic. However, Bernard comes to the sound conclusion that our knowledge (sciencia) of urines should not be "vague and confused, but certain and specific."[145]

Bernard is not entirely specific with regard to another diagnostic tool, the pulse. His treatise De pulsibus is very brief, rather amorphous--there are no chapters--, and it is largely speculative. The basic definition of pulsus, for example, is explicated in a literary discourse that likens the pulse to a herald who reveals the unseen, never rests, and announces life or death.[146] The discourse also includes a synopsis of the philosophical proposition that the heart is the seat of life, and Bernard cites Aristotle, Galen, Augustine, Avicenna, and Alfred of Sareshel.[147] The major theme of the treatise is that the science of pulses, however useful, is so difficult that "only God, Galen his servant, and a very few others" are privy to it.[148] Among the reasons for this difficulty are the prerequisites for an accurate reading of the pulse, namely a high intelligence, a keen sense of touch, a knowledge of musical proportions, and above all long experience. In spite of his own many years of practice, however, Bernard appeared unable to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

formulate a list of specific instructions. The only concrete items in the De pulsibus are a sketchy anatomy of the heart and an elementary classification of types of heartbeats.[149] Bernard concluded this tract apologetically, "I do not attempt to go into the details of pulses because I have collected from the book on pulses of venerable Aegidius as much as my weak competence would allow." And he advised readers, who were not satisfied with his own work, to consult that book of Aegidius or Gilles de Corbeil.[150] One wonders whether Bernard's "weak competence" reflected a lacuna in his own training, since he did not cite the treatises on pulses by Philarètus and Theophilus, which were part of the ars medica but were absent in the Montpellier curriculum.[151] It is also worth noting that Bernard had waited for thirteen years after first expressing his plan to compose a treatise on "this arduous matter."[152]

The Regimen sanitatis, too, had been announced by Bernard long before its actual composition.[153] It was the last but most important part of the entire treatise, for which it supplied the title, De conservacione vite humane, or On the Preservation of Human Life. In the Regimen Bernard drew on the wisdom of his long experience

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

as a teacher and physician and adorned his instructions with the fruits of his wide reading. He cited proportionately more authors than in his other works, although the emphasis is again on Galenic writings, especially the De regimine sanitatis. Incidentally, this work of Galen did not appear in the Montpellier curriculum until 1340.[154] It would seem that the study of the rules of health as a separate subject was still in a formative phase at Montpellier in the beginning of the fourteenth century.[155] In 1298 Arnold of Villanova composed a Regimen sanitatis after he had perhaps edited the Regimen sanitatis Salernitanum.[156] The following year, 1299, a regimen by Avenzoar (d. 1162) was translated by Profatius Judeus with the cooperation of the surgeon Bernardus Honofredi at the request of Master Petrus de Capitestagno.[157] Bernard de Gordon, however, cited here neither the Regimen Salternitanum, which he did quote several times in the Lilium,[158] nor Avenzoar's work, although he knew its translator Profatius.[159]

More significant than these omissions are the weaknesses apparent in the organization of the Regimen. While Bernard had set out to discuss the life regimen from birth to death,[160] he did not carry the chronological

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

development beyond youth, and he failed to outline a regimen for middle or old age. He, nevertheless, showed concern for old age when he raised the question "whether one could be preserved by the art of medicine...so that he would be long-lived and would reach the limits of old age."[161] This question occurs, oddly enough, in the chapter on "the expulsion of superfluities." This brings us to another organizational flaw in the Regimen. After several of the chapters Bernard inserted questions that are rather speculative and often little related to the topic at hand. For example, it appears incongruous that the chapter on diseases of infants is followed by a question about the "complexion" of wine.[162] A further shortcoming of Bernard's arrangement relates to the material covered by the chapters of the Regimen. While Bernard appeared certain that "the regimen of health lies in the due administration of the six non-natural things,"[163] that is air, food and drink, excretion and repletion, sleep and vigils, exercise, and "accidents of the mind,"[164] he did not systematically develop these six essentials. Thus, he omitted a discussion of air but inserted chapters on massage, sex, and fatigue.[165]

It would perhaps be presumptuous to draw direct

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and definite conclusions from the above omissions and organizational flaws. However, these do suggest that Bernard was less thorough in the Regimen than in most of his earlier treatises. His advancing age does not seem to be an adequate excuse, since the first two parts of the Liber de Conservacione, composed within the same half year, were still remarkably thorough. Rather, Bernard may again have been handicapped by what he earlier termed "weak competence," or a lacuna in his own educational background, as we observed with regard to the preceding treatise De pulsibus. In general it appears that not only the academic treatment of the Regimen sanitatis was still in a developing stage at Montpellier, as we have seen, but also that the subject appears to have been neglected by practising physicians. Bernard himself charged that "it is shocking that physicians of our time do not care to know the regimen of health because they do not consider it lucrative, but they are quite concerned and careful in the treatment of diseases and especially of fevers."[166] We may, therefore, give Bernard credit for his efforts, in the Regimen sanitatis, to supplement and to correct the teaching and practice of his contemporaries.

Two other works, by which Bernard de Gordon

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

apparently endeavored to supplement the contemporary university curriculum, were his monographs, the De tyriaca[167] and the De marasmode.[168] Both works, though undated in the manuscripts, logically belong to the last period of Bernard's writing career and have several significant characteristics in common with the Liber de Conservacione. Most striking are the unprecedented length and speculative nature of the prologues. The preface of the De tyriaca constitutes the elaborate first chapter of the work, and that of the De marasmode occupies almost one third of the entire treatise. Each preface, moreover, deals with an academic questio, in which Bernard avowedly observed his customary procedure.[169] The phrase consuetudo nostra would indicate that Bernard had already arrived at an habitual pattern of teaching and writing, unless the term referred to an established scholastic procedure in use at Montpellier. It is possible that the scholastic dubitatio was especially important in the discussion of such special subjects as theriac and marasmus, that is consumption by desiccation. These subjects apparently did not find a specific place in the general curriculum. They nonetheless lent themselves well to philosophical debate.

The two above named tracts, De tyriaca and De

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

marasmode, do indeed contain more philosophical speculation than Bernard's earlier works. There is also more emphasis in them on Aristotelian concepts such as causality, matter and form, and act and potency. Furthermore, in both treatises Bernard cited Averroes as well as Aristotle, and gave numerous and explicit references to other authors, among them Galen and Avicenna. These features seem to fit into the pattern of Bernard's later, rather than earlier, years of composition.[170] In this regard, the two works seem to clinch the pattern of Bernard's evolution. They may also have reflected contemporary trends at Montpellier.

For these as well as other reasons the two preceding monographs should be dated as precisely as possible. We may assume that the treatises on theriac and on marasmus were composed after 1303, since Bernard did not include them in the Lilium's epilogue, where he methodically listed his previous works.[171] The assumption that 1303 is the terminus a quo for the composition of the Tractatus de tyriaca finds further support in two passages of the Lilium. In a paragraph on the viper (tyrus), "from which theriac is made,"[172] Bernard said nothing about his detailed description of the preparation of viper

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

troches, found in the De tyriaca. There, he asserted that the viper troches, together with troches of squill and diacorallus, were to be blended with honey and forty nine simples to make theriac. On the other hand, in the chapter on poisons in the Lilium, Bernard adopted the theory that theriac should not be administered to healthy bodies. This view, which contradicted that of Avicenna, was expressed by Averroes in his De tyriaca. Bernard in the Lilium also repeated the crux of Averroes' argument, borrowed from Galen, namely that antidotes are substances between poisons and medicines.[173] Here again, Bernard made no mention of his own De tyriaca, although he devoted the introductory questio of this work entirely to the proposition of Averroes. Moreover, the Tractatus de tyriaca is apparently Bernard's only treatise that neither mentions nor is mentioned in any other of his works. This is so surprising for an author who consistently made cross references to his own writings, that Karl Sudhoff was led to believe that the De tyriaca was an "early or youthful work" of Bernard de Gordon. Sudhoff suggested further that the more mature master came to think of it as a "mere compilation," not worthy to be counted among his full-fledged works.[174] However,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the distinction between compilation and original composition is based on modern criteria rather than on those of Bernard and his contemporaries.[175] Also, if the Tractatus de tyriaca had been considered as an inferior work by the author's contemporaries, it would probably not have been preserved in several copies. At least nine manuscripts of the tract are extant, and it is twice cited in a work as famous as Henri de Mondeville's Chirurgia.[176] Henri de Mondeville began his Chirurgia in 1306, which provides us with a terminus ad quem for the completion of Gordon's De tyriaca. It may also be noted that Henri de Mondeville did not cite the Epistola de dosibus tyriacalibus of his better known contemporary, Arnold of Villanova. Perhaps Henri de Mondeville, as a surgeon, found Arnold's thoroughly philosophical Epistola less useful than Bernard's simpler treatment of the subject.[177]

Although it seems somewhat surprising, too, that Bernard did not refer explicitly to Arnold's Epistola, it is possible that he intended to supplement the work of his colleague. More specifically, in his Tractatus de Tyriaca Bernard may have attempted to bring Arnold's esoteric discussion down to a more accessible level, as

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

he had earlier done for the question on medicinal degrees.[178] This is suggested in Professor McVaugh's observation that, while Arnold's Epistola aims at "rational understanding," Bernard's Tractatus emphasizes "factual information" and displays a "disinterest in abstract matters."[179] As we shall see, however, Bernard's "disinterest" might also be characterized as inability to deal with abstractions, rather than indifference. In his tract on theriac he seems to have been tantalized by philosophical speculation, but he apparently became entangled in a maze of inconsistencies and sophistries. Thus, while he stressed, on the basis of Galen and Avicenna, the paramount role of experience in determining the effect of theriac,[180] he utilized purely deductive reasoning in his introductory questio whether theriac could be administered to healthy persons. Furthermore, while adopting the negative answer by which Averroes contradicted Avicenna, Bernard ventured the apologetic but unsubstantiated suggestion that Avicenna could not have been so mistaken.[181] At the same time he ignored Averroes' cogent philosophical arguments, and substituted a rambling syllogism on the theory that both universe and man are governed by the interplay between lack and abundance. To that theory, then, he

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

applied the Aristotelian three kinds of justice (legalis, distributiva, and commutativa) to prove that theriac can only harm the healthy body. Throughout, while groping for an understanding of natural philosophy, Bernard seems unable here to reach beyond the levels of, at best, ethics and dialectic or, at worst, literature.[182]

Subjects such as the basic reason for theriac's effectiveness, which could have drawn on the insights of natural philosophy, receive only brief and vague treatment in the central chapters of the Tractatus de tyriaca. Instead, Bernard elaborated upon the history of theriac's invention and he developed a gloss on its definition. In that exegesis he also inserted an interesting excursus on various poisoning techniques, borrowed from a certain Polys.[183] However, Bernard warned against the use of poison, citing Seneca, Sallust, Suetonius, and the Hippocratic oath.[184] He further added a chapter on the usefulness of theriac in warding off more than a dozen diseases, ranging from migraine to pestilence. He admitted, however, that "although theriac was valuable in antiquity, in modern times it has little effect on the body because of its fast action."[185] Bernard's skepticism in this regard may explain why he was rather casual in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

determining the dosage of theriac.[186] He nevertheless recounted an instance in which he had corrected a near-fatal overdose which an apothecary had taken.[187] The entire matter of theriac, however, became ironically academic when, in the last chapter, Bernard gave his own recipe for a panacea that, unlike theriac, was not itself poisonous.[188] The potency of that panacea, moreover, exceeded that of theriac and, in fact, surpassed "all natural understanding." This prescription, Bernard claimed, was "marvelously beneficial to old people."[189] He even went a step further, in his consideration for the aged as well as in his promise of marvelous results, when he prescribed an electuary that, "with a good regimen, prevents man from growing old, in so far as this is possible in nature." This electuary he placed in the last chapter of his Tractatus de marasmode, a chapter that shows intriguing similarities with the final chapter of the De tyriaca.[190]

Bernard's concern with old age is only one among several characteristics of his later writing period. Other characteristics were his growing penchant for speculation, to which he devoted lengthy prefaces; his interest in philosophical questions, which he evidently failed to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

integrate into medical theory; and his endeavors to explore topics that were apparently omitted in the university curriculum at Montpellier. These features of Bernard's composition were only faintly foreshadowed in the Lilium, but they became progressively more pronounced in his Liber de conservacione and in his De tyriaca, and they converged in his De marasmode. For this reason the Tractatus de marasmode, though probably the only authentic and original work of Bernard that has never been printed or analyzed on its own terms,[191] deserves a more thorough study than the present context can allow. Perhaps the most salient feature of the treatise is the author's preoccupation with the questions of natural philosophy related to medicine.

In the long introduction he examines the question "whether semen materially enters the composition of the fetus."[192] He asserts that the philosophers, namely Aristotle and Averroes, answer the question negatively. But they are contradicted by the physicians, namely Hippocrates, Galen, Avicenna and Haly. As could be expected, Bernard took the side of the latter group. He also added the somewhat sarcastic comment, "if one, therefore, wishes to be fertile, let him take the way of the physicians (viam medicorum); but let him, who wishes

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

to speculate instead, take the path of the philosophers (viam philosophorum)." And he further cited Avicenna's remark that "in this case, ignorance of philosophy does not harm the physician. For regardless of what may be said, generation occurs anyway."[193] Paradoxically, Bernard attempted not only to sum up the philosophers' theses but also to answer them in a philosophical fashion. In this, however, he seems not to have been too successful because several of his syllogisms appear rudimentary and unconvincing. A striking example is found in his refutation of the thesis that semen does not play a substantial or material but only a formal role in conception. After simply reiterating the basic distinction between "form-giving form" and "form-receiving matter," he summarily concluded that "not the form as form, but only that which was subjected to form enters" the composition of the fetus.[194] Furthermore, he based his arguments either on subtle distinctions, such as that between "seminal matter" and "the substantial form of semen," or on strange meta-physical principles, for example that "potency precedes act in one and the same thing, but in diverse things act always precedes potency."[195] Although much of his deduction looks like sophistry, it would be unfair to accuse Bernard of deliberate legerdemain. He believed that his

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

proof was as good "as any demonstration could be in this matter," and he likened its validity to the strength of Achilles.[196] Therefore, we may assume that he intentionally left the detailed ratiocination to the reader, or perhaps that he was unable to work out the logical and metaphysical implications. In any event, he also neglected to establish logical connections when he moved from the main question on male semen to the theory of Aristotle and Averroes that "female sperm" has nothing to do with conception,[197] an issue which he had raised earlier in the Lilium medicine.[198]

A more serious flaw is Bernard's failure to explain the logical connection between the introductory questio on conception and the subject proper of the Tractatus de marasmode.[199] The subject matter, marasmus, is defined as "the decay of the living body by desiccation."[200] This opening definition was taken from Galen's De marasmo, on which Bernard's treatise was a commentary, apparently the only one composed at Montpellier and perhaps the only one dating from the Middle Ages.[201] The core of Bernard's commentary, however, namely the concept of the "radical moisture" (humidum radicale), was an idea that saw "its most active efflorescence just before and

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

just after the beginning of the fourteenth century."[202] It would seem that, with his timely study of a difficult topic, Bernard intended to supplement the Montpellier curriculum, as he may have done earlier in his De pulsibus and in his Regimen sanitatis. It is also possible that in his De marasmode, as in his tracts on degrees and on theriac, he was again inspired by the work of his philosophically inclined confrere Arnold of Villanova.[203] Before 1308, Arnold composed a treatise De humido radicali, in which he concentrated on the question of life in terms of natural philosophy rather than in direct relation to medicine.[204] Professor McVaugh has recently observed that, because of the contrast between the endeavors of Arnold and those of Bernard, "it is difficult to assign proper credit to the intellectual consistency and philosophical sophistication of Bernard's thought."[205] Moreover, Arnold seemed to pursue an abstract subject for its own sake, while Bernard examined such subjects primarily in the light of medical practice. However, if Bernard had truly lacked interest in abstraction, it would be difficult to understand why he devoted so much of his tract De marasmode to the theoretical aspect of the radical moisture and its drying out.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The doctrine of the radical moisture was the belief that this was the fourth of the "secondary humours" or "humidities" in the human body. It had gradually been grafted onto the Hippocratic-Galenic tradition of the body's four basic humours, namely blood, phlegm, yellow bile (choler), and black bile (melancholy).[206] Its rationale was based on the need to explain the phenomena of life and death; and its philosophical background was epitomized in Bernard's description of the two complementary "principles of life," namely natural (or innate) heat and radical moisture.[207] With regard to the interaction between heat and moisture, Bernard also devoted an entire chapter to the traditional comparison between the decaying human body and the burnt out wick of a lamp.[208] Although the two vital principles as well as the wick simile had appeared sporadically in Bernard's earlier works,[209] it was only in his Tractatus de marasmode that he attempted to correlate them in a systematic discussion. However, the task seems to have been beyond Bernard, either because the whole doctrine was still in a chaotic developing stage or because he was once more unable to carry through a process of abstraction. Apparently confused by the differences between the basic

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Galenic formula and that of Avicenna, he explicitly stated that "there are three humidities in our body,"[210] but actually listed four (namely ros, cambium, glutinum, and humidum radicale). Moreover, he gave two discrepant sets of these secondary moistures: in one set, for example, he omitted the humidum radicale but added "hard and soft fat (pinguedo et adeps) and flesh" as well as a vague class of "humours in the veins and arteries."[211] In a further inconsistency that betrays his bewilderment, Bernard related each of the humidities to the specific kind of hectic fever that affected them, but then concluded that there is really no criterion to distinguish one kind of hectic fever from another.[212]

For the diagnosis of hectic fevers in general, Bernard referred to his own commentary on Galen's De differentiis febrium.[213] That commentary he also mentioned in the De urinis and, frequently, in his Lilium; but he omitted any reference to it in the Lilium's epilogue.[214] Since the commentary, furthermore, has so far not turned up in manuscript form, it may not be a separate work but part of another Gordon treatise, probably the Liber pronosticorum.[215] The same observation seems to apply to other instances where Bernard seemingly refers to other

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

works by himself, namely to a treatise on leprosy,[216] to a commentary on the Viaticum (Constantine's Breviarium),[217] and to a commentary on Galen's fourth book De morbo.[218] In the case of the last two references, Bernard asserted that he had "discussed the matter," and he spoke of "our expositions." His use of the terms disputavimus and exposiciones nostras suggests the interesting possibility that he may have been alluding to a commentary which he had delivered in the course of a class lecture.

There are, finally, several works that, although never referred to by Bernard himself, have been attributed to him in manuscripts. Since their authorship is doubtful, their use is precluded in the present study. Nevertheless, some of these works seem worth investigating. We may mention, for example, the vocabulary of diseases, with their etymology and classification, called Arbor egritudinum.[219] While the author of this vocabulary referred to such lexicographers as Isidore of Seville, Hugucio of Pisa (fl.ca. 1200),[220] and Januensis (Joannes, d. 1298; or Simon, d. 1303),[221] he may have borrowed the idea of logical classification from Ramon Lull's Arbor scientie (1296).[222] To Bernard de Gordon were also

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

attributed the magic-filled Tractatus ad faciendum sigilla et ymagines contra infirmitates,[223] and a practical therapeutic guide, the Modus medendi in egritudinibus presertim cum medicus nescit causam.[224] It is intriguing further to find that certain allegedly Gordonian treatises have also been ascribed to his aforementioned colleague Arnold of Villanova. That is the case for the De conferentibus et nocentibus,[225] the De floribus dietarum,[226] and the De sterilitate.[227]

It seems unlikely that a further examination of the above mentioned possibly Gordonian tracts would lead to substantial changes in our evaluation of Bernard's scholarly production. In the survey of his indubitably authentic writings, one feature has become progressively clearer, namely the gradual evolution in the style and method of his efforts. His writing career, which spanned over a quarter of a century, appears to have reached a turning point in 1303, the year of his De gradibus and, especially, his Lilium medicine. In the early part of his career Bernard adhered closely to the Montpellier curriculum in choosing the topics of his treatises; but in his later years he ventured into relatively new territory, even though the lacunas in his own educational

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

background apparently hampered the achievement of his desired goal. Furthermore, his early works were consciously brief, primarily practical, and rigidly organized; several of his later works, on the contrary, were more drawn out and more speculative, but were also weaker in organization and were often marred by inconsistencies. Finally, while in the beginning Bernard mentioned few of the authorities he used, with the Lilium and the subsequent works he became more explicit in his references. It is impossible to determine with certainty whether these developments in Bernard's writing reflected merely his personal evolution or were due to the wider context of growing interest in scholasticism at Montpellier.

Whatever their cause, however, the above summarized developments should not overshadow the constant characteristics of Bernard's scholarship, such as his balanced use of both established tradition and personal insight, and his continued concern with medical teaching and practice. These and other characteristics, which pertained to the substance of Bernard de Gordon's thought rather than to the form and style of his writing, will be examined further in the following chapter.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NOTES TO CHAPTER FIVE

1. Karl Sudhoff, "Zur Schriftstellerei Bernhards von Gordon und deren zeitlicher Folge; eine Handschriftenstudie," Archiv für Geschichte der Medizin, X (1917), 162-188.

2. Robert von Töply, "Die chronologische Reihenfolge der Schriften des Bernhard Gordon," Mitteilungen zur Geschichte der Medizin und der Naturwissenschaften, VI (1907), 94-95.

3. Ernest Wickersheimer, Dictionnaire biographique des médecins en France au Moyen Age, 2 vols. (Paris, 1936).

   Lynn Thorndike and Pearl Kibre, A Catalogue of Incipits of Mediaeval Scientific Writings in Latin (rev.ed., Cambridge, Mass., 1963) and addenda in Speculum, XL (1965), 116-122 and XLIII (1968), 78-114: hereinafter referred to as TK.

   In his earlier History of Magic and Experimental Science, II (New York, 1923), passim, Professor Lynn Thorndike's passing references to Bernard de Gordon were based primarily on the article by Emile Littré in the Histoire Littéraire de la France, XXV (Paris, 1869), 321-337, and on printed editions of Bernard's works.

4. The Gordon manuscripts are listed in Appendix II below.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

5. By "published" (editus) is meant the public delivery of the treatise, either in a lecture by its author or in a display by the scriptorium.

6. "Hec autem omnia scripta sunt post lecturam continuam XI annorum," De regimine acutorum morborum, in Vatican MS Palatine (VAp) 1083, fol.281v.

   We know from his translation of the De reductione geomancie and from his Lilium medicine that Bernard began lecturing in 1283; see below.

7. See chapter II above. See also Appendix I, below, for Montpellier commentaries by Cardinalis, Arnold of Villanova, and Petrus de Capite Stagno.

8. "Et iuxta naturam istorum preteritorum [?] solers medicus conflabit formam regiminis vel considerabit... Patet igitur quod prudens medicus ex concursu preteritorum [or, particularium?] elicit formam regiminis in omni morbo...," De regimine acutorum, in MS VAp 1083, fol.279v.

9. Incipit "Regimen acutarum egritudinum consistit in tribus: in dieta, in pocionibus, et potibus alterativis... Primum capitulum de recta administracione cibi et potus in qualitate et quantitate et ordine iuxta arbitrium medici," ibid., fol.278r. For MSS with this incipit see TK 1344.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

10. "Medicinam digestivam quam ponit Ypo.sunt [sic] quinque vinum ydromel oxymel aqua et balneum," De regimine acutorum, in MS VAp 1083, fol.280v.

11. "Tamen didici a vetulis magis per viam experimenti quam racionis quod malve bismalve pistate cum oleo ... solvunt dolorem in pleuresi," ibid.

12. "Summo tamen opere cavendum est quod in passionibus spiritualibus non provocetur tussis [viz.by oxymel, which contains vinegar]. Acetosa autem provocant et in hoc sunt multi decepti," ibid., fol.281r. "In hoc autem sunt decepti omnes qui credunt quod vene que nutriunt costas constituant venam in brachio quod nusquam reperitur inspicienti anathomiam ...," ibid., fol.280r.

13. Incipit "Cum omnis prolixitas noverca sit veritatis ideo ego intendens librum regimenti diffuse late quoque conditum sum motus amore mei socii magistri Johannis de Confluente hunc librum a capite breviter sub quodam epilogo pertractare. Regimen acutarum egritudinum in tribus consistit," ibid., fol.281v. For a MS with slightly different incipit see TK 327.

The "liber", referred to by Bernard, seems to be his own rather than that of Hippocrates, as Littré would have it, Histoire Littéraire, XXV (1869), 323.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

14. While nothing else is known of Johannes de Confluente, Karl Sudhoff suggests that he may have been of the same Piedmontese family as Jacobinus de Confluentia: "Das dem Magister Johannes de Conflente [sic] gewidmete Regimen acutarum aegritudinum des Bernhard von Gordon," Mitteilungen zur Geschichte der Medizin, XIV (1915), 93.
15. "... fuerunt facta in statu baccalarij tempore cursus primi etc [sic]," Compendium regiminis acutorum, in MS VAp 1083, fol.281v.
16. "Omnis subita mutacio nocet et in sanis et in egris," ibid., fol.282r.
17. Hippocrates, On Regimen in Acute Diseases, tr. by Francis Adams, in The Theory and Practice of Medicine, [ed.] Emerson C. Kelly (New York, 1964), p. 72. The references hereinafter are to this translation of Hippocrates.
18. Ibid., pp. 62-65; in note 3, p. 62, the editor indicates that this treatise was even "quoted by Athenaeus (Deipnos, ii.16) by the name of the work On the Ptisan."
19. "Si materia vadit ad inferiora tunc competit secundum Gal.flebotomia quantum est de securitate secundum Ypo.competit farmacia ut elleborus niger repressus cum lauro vel felicinum cum asa et istud dabatur tempore

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Ypocratis. Et ista sunt perfectius pertractata in lilio [if this is a reference to Bernard's later Lilium medicine, it is an interpolation]. Nos vero qui sumus in alio climate non utimur illis medicinis sed ventrem lenimus cum cassiafi et similibus," Compendium, in MS VAp 1083, fol.282v.

20. "Et sic per dei graciam in acute febricitantibus fiet cura. Et tu per viam exempli secundum magis et minus potes idem intelligere in cronicis. Et si complete dicta Ypo. non agregavi peto veniam de obmissis etc. [sic]," ibid., fol.283r.

21. "Longa sunt tempora quod nos abreviavimus regimentum acutorum et venit ad manus multorum," De ingenio sanitatis, epilogue, in MS VAp 1083, fol.285v.

22. "Explicit tractatus brevis et utilis supra pronostica editus a magistro Bernardo de Gordonio in preclaro studio Montispessulani anno domini m°cc°94° in conversione s.Pauli editus fuit iste tractatus," Liber pronosticorum, in MS VAp 1174, fol.103r.

Since this dating uses the Gallican reckoning, beginning the year with Easter, the date in our calendar is 1295; see Sudhoff, "Schriftstellerei," p. 169.

23. Incipit "Senectus domina oblivionis est. Nunc autem cum sciencia predicendi sit ardua et difficilis necnon

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

est multum utilis. Ideo signa pronosticorum et dies creticos intendo sub quodam epilogo pertractare ut mei sit solacium senectuti non confidens de meis viribus sed de ubertate gracie salvatoris...," Liber pronosticorum, in MS VAp 1174, fol.73v. For other MSS with this incipit see TK 1428, item 2; and ibid., item 3, for MSS with a slightly different incipit.

24. "Senectus seu consistencie [etas] durat a 35 fere usque ad 60," Liber pronosticorum, II.6, in MS VAp 1174, fol.83v. Also Hippocrates considered the age of 35 as the end of "youth": see his Prognostics, ed. Kelly, Theory and Practice, p. 57 and passim.
25. See chapter II above.
26. "Postea [viz. after the Regimen acutorum] compilavimus opus de crisi et de diebus creticis breviter et cum integritate," Tabula ingeniorum, epilogue, in MS Vatican Palatine 1083, fol.285v.

"Qui autem differencias...febrium scire voluerit... vadat ad librum nostrum de pronosticis. Ibi enim cum auxilio divino fideliter aggregavimus dicta Ypo. et Gal.et Avicenne et aliorum," Lilium medicine, I.i, in London MS British Museum Harley (BM Harl.) 3698, fol.1r.

27. See above, n.23.
28. On quartan fever, "hic autem breviter pertransimus,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

quia per intencionem cum auxilio Dei alibi intendimus pertractare," Liber pronosticorum, I.3, in MS VAp 1174, fol.76r. On pulses, "si autem istam materiam prolongaremus particulariter nimis prolongaretur opus, quoniam alibi cum auxilio divino intendimus pertractare per modum tabularum... Excuso me nunc a prolixiori determinacione, quia per dei graciam longius temptaturus sum hanc arduam materiam aggredi," ibid., IV.5, fol.90v-91r. Also on the regimen of health, ibid., II.6, fol.83.

29. On tertian fever, "si vellem hic particularia pertractare, multum prolongaretur opus, essetque dehonestatum cum non evadat liber a vituperacione vituperantis...non audeo tamen nimis pertractare timens prolixitatem," ibid., I.1, fol.74v.

30. "Sicut pronosticacio precedit operacionem, ita cognicio pronosticacionem," ibid., I.2, fol.75r. The same idea is expressed in the incipit of the text of the treatise, "In morbis enim pronosticare non possumus nisi morbum cognoscamus," ibid., fol.74v.

31. In the chapter on regions, Bernard includes interesting and detailed guidelines for the construction of a city, ibid., II.7, fol.84r-v.

32. The special interest of these chapters was already noted by the scribe of an early manuscript: "Explicit

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

tractatus super pronostica Ypo.et de crisi et creticis diebus Gallieni et continens aliquid de astrologia que est necessaria medico...," in Munich MS Codex Latinus Monacensis 26908, first half 14th c., fol.91, cited by Sudhoff, "Schriftstellerei," p.169, n.2.

While something has been said of Bernard's knowledge of astronomy in chapter IV above, his attitude toward astrology will be discussed in chapter VI below.

33. Liber pronosticorum, V.6, "De investigacione nature dierum creticorum per causam sumptam a quadris lune"; 7. "De natura et complexione superiorum quantum pertinet ad medicum"; 8. "Docet computare septimanam medicinalem et mensem"; and 9. "De mense solari et lunari."

34. Thus, V.6, incipit "Numerus et sufficiencia dierum creticorum habetur...," in MS Prague 243 (I.F.11), fol.176r (n.d., TK 960); and V.8, incipit "Medicus autem velit nolit supponendo aut quoque modo fit...," in MS Cambridge University Trinity College 1122 (O.II.18), fol.159v. (15th c., TK 863). Of some special interest is the case of V.7, incipit "Circa istam materiam est intelligendum quod natura...," in MS Bristol City Reference Library, fol.272v (a. 1420-1435). This text was attributed to Guy de Chauliac by

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Charles Singer in the Comptes rendus du deuxième Congrès international d'histoire de la médecine (Evreux, 1922), pp. 168-176. Singer found the text "tout à fait typique de l'école arabienne de laquelle Guy est, comme chirurgien, l'exposant le plus distingué. L'oeuvre possède, d'ailleurs, une qualité qui est rare dans les écrits de cette école. Elle est assez brève et n'exhibe point la 'verbositas arabica'," ibid., p. 169.

35. Actually, Bernard may have taken much from Albertus Magnus or from the pseudo-Aristotelian Secretum secretorum. This is a possibility, which dawned upon me while reading Thorndike, Magic, II, 587, and while looking over a few dubious "Aristotelian" references in Bernard's writings. The question of Bernard's astrological sources might be worth investigating further. For numerous references to MSS of Hippocratic, pseudo-Hippocratic, and Hermetic treatises on astrological medicine, see TK, index col.1820-1 and 1823.

36. See especially Karl Sudhoff, "Zur Geschichte der Lehre von der kritischen Tagen im Krankheitsverlaufe," Archiv für Geschichte der Medizin, XXI (1929), 1-22.

37. Such as necromancy, the casting of images, and geomancy; see Thorndike, Magic, II, chapter XLV and passim.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

38. "Translacio magistri Bernardi de Gordonio phisici; regnante bonifacio pape et adulphe electo in imperatorem et philippo rege francie filio quondam philippi regis francie, et iacobo rege maioricarum, et berengario episcopo magalonensi, et audoardo rege anglorum; et anno xiii^{o} lecture nostre in phisica in montepessulano, et anno domini m cc nonagesimo quinto. die jovis ante natale," in Paris MS Bibliothèque Nationale (BN) 15353, 13-14th.c. (TK 1032), fol.92vb. This detailed and accurate dating makes it unlikely that the translation would be spurious, although it is one of the only two Gordonian works which has never been printed. I hope to publish an edition of this translation in the near future.

39. "Incipit archanum magni dei revelatum tholomeo regi arabum de reductione geomancie ad orbem. [P]er hoc presens opus possunt cognosci exquisite presencia, preterita et futura...," De reductione geomancie ad orbem, in MS BN 15353, fol.87r. See TK 727.

40. A Provençal MS in Paris, Bibliothèque Nationale Fr. 14771, ca. 1300, contains divinations whose contents and procedures are very similar to those found in Bernard's translation. In addition, a somewhat later MS, Bibliothèque Nationale Lat. 7420A, probably written at

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Montpellier, contains several Provencal poems on geomancy which are almost certainly inspired by a version of the Reductio geomancie; the same manuscript also contains a Provençal tract on astrology, with illustrations strikingly similar to those which adorn Bernard's translation. For references, descriptions, and excerpts of the above MSS, see Paul Meyer, "Traités en vers Provençaux sur l'astrologie et la géomancie," Romania, XXVI (1897), 225-275.

41. "Queritur de nomine et vita et statu et regno et tota disposicione regis castelle usque ad finem vite sue," Reductio geomancie, in MS BN 15353, fol.87ra. It is worth noting that the colophon in note 38 above does not list Sancho IV of Castile (1284-1296) among the reigning monarchs.

42. However, at least one scholar and colleague of Bernard's, Ramon Lull, scored the art of geomancy and its practitioners, in his Tractatus novus de astronomia, published in 1297, a mere two years after Bernard's translation. See Thorndike, Magic, II, 869, and Sarton, Introduction, II, 909.

43. Compare C.H. Talbot, Medicine in Medieval England, (London, 1967), p. 126.

44. "Modus autem operandi in hac sacra sciencia est huius:

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

fabricantur in primis x domus et in qualibet domo sint iv linee punctorum, et puncta sint proiecta a casu et fortuna sicut fit in geomancia, et prima domus attribuatur geomancie, secunda soli...," Reductio geomancie, in MS BN 15353, fol.87r. While this art of "reduction" appears different from geomancy proper, it would lead us too far afield to attempt to unravel here its complexities. A helpful description and bibliography on geomancy is found in Thorndike, Magic, especially II, 110-121 and 835-837.

45. "Cum ergo volueris facere questionem oportet quod sit de re licita et honesta et diu cogitata et per intencionem et non ad illudendum," Reductio geomancie, in MS BN 15353, fol.87r.

46. "...quia procedunt omnia a summo culmine rerum quo non consulto nichil est quod sidera possint ideo in principio dicatur humiliter talis oracio: Sancti Spiritus assit nobis gracia ut ostendat nobis divina Domini iudicia; et cum hoc ista: Deus qui beato Paulo apostolo tuo 4 aperuisti secreta celi et precepisti ut nemini revelaret sic me facias solvere questionem istam ut diabolus non habeat potestatem nocendi sed mitte angelum tuum sanctum de celo qui solvit Petrum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

a ligaminibus, qui me custodiat et doceat solvere questionem istam per Christum Dominum nostrum amen," ibid.

47. It is perhaps worth noting that Taurus is "femineus."

48. Each planet has a triple "terminus," such as "primus terminus xxx annos, secundus xliii et dimidium, ultimus lviij," for Saturn, ibid., fol.88v. These terms agree with those given by Abu Mashar.

49. These symbols, unlike the astrological figures of the zodiac, consist of a number of points arranged in different orders. Thus Aquarius is symbolized by ⁘, Leo by ⁛, the sun by ⁙, the moon by ⁝∴⁝, and so on.

50. "Cap.secundum VI domus. Si vis scire utrum sit bonum medico vel non accipere pacientem in cura sua vel ire ad eum.... si boni planete inveniantur in domo VII [sic] bonum est et tunc docmata magni Ypocratis verificabuntur ad unguem," Reductio geomancie, in MS BN 15353, fol.91v.

51. See chapter VI below.

52. Rather than in 1296, as in the incunabulum edition (Venice, 1498, Hain 7800), fol.2v, and in the Histoire Littéraire, XXV, 321.

53. "... facta fuit hec ordinacio in preclaro studio

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

montis pessulani anno domini m°cc° nonagesimo nono mense iulii die mercurii post festum sancti marcialis, et quia aliqui ex sociis volunt scire quod dandum est...," De decem ingeniis curandorum morborum, in Munich MS Codex Latinus Monacensis 340, a. 1304, fol.264v, quoted by Sudhoff, "Schriftstellerei," p. 167. It may be noted that the reference to the "sociis" seems somewhat ambiguous; see the variant in the following note.

54. "Et ista omnia extracta sunt ex dictis Galeni de ingenio et potissime ex xij particula et potissime ex capitulo finali, et ex dictis Avicenne primo canonis fen quarta capitulo primo, et quia aliqui ex sociis volunt scire quid dicendum est...," De ingenio sanitatis, in MS VAp 1083, a. 1447-1458, fol.285v.

55. Besides Galen's De ingenio, Bernard also cited his Tegni and his commentaries on the Hippocratic Regimen Acutorum, Prognostications and Aphorisms. With regard to Haly Abbas, by whom may be meant Haly ibn Ridwan, see chapter IV, note 54 above.

56. "...debemus que sunt boni odoris exhibere et pro tanto valet persecum quod rubeum non est potissime inventum in monte pessulano," De ingenio sanitatis, in MS VAp 1083, fol.284v. The 1498 incunabulum has

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"poma rubea" instead of "persicum," fol.2r.

57. "Et debet advertere medicus si est officium iuxta pacientem contristans ipsum sicut sunt fabres et malleatores et paratores coriorum et fundentes sepum, et qui operantur de sulphure et similibus," De ingenio sanitatis, in MS VAp 1083, fol.283r.

58. Galen's De ingenio was listed in the 1309 reading list (twice) and in the 1340 curriculum, see chapter II above.

59. "...libellus qui intitulatur tabula ingeniorum," Lilium medicine, VII, epilogue, in MS BM Harl. 3698, fol.99v; and see n.84 below.

60. Incipit "Ingenia curandorum morborum quantum est de presenti sunt X. Primum sumitur ex morbo... Prima consideracio ex morbo sumpta fortis et valida... Ingenia curandi morbos sumpta ex morbi essencia sunt xi. Primum sumitur ex morbi essencia scilicet si est simplex vel compositus... si simplex, an intensus an remissus. Et si remissus debile medicamen sufficit...," De ingenio sanitatis, in MS VAp 1083, fol.283r.
For MSS with slightly different incipits see TK 743-744.

61. "Incipit tractatus de gradibus ordinatus a magistro Bernardo de Gordonio decano medicorum in almo studio montis pessulani a.D.M.^{o}ccc^{o}iij^{o}," in Erfurt MS

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Amplonianum F.236, first half 14th c., fol.50v, cited by Sudhoff, "Schriftstellerei," p. 179. We may infer that the work was finished in the first half of 1303, since it is mentioned in the Lilium medicine, which Bernard began in July 1303.

62. These qualities and properties could be found in alphabetical lists of simples, such as the anonymous but popular Liber graduum; see Loren Mackinney, "Medieval Medical Dictionaries and Glossaries," in Medieval and Historiographical Essays in Honor of James Westfall Thompson (Chicago, 1938), pp. 259-260.

63. After describing a prescription to control flegm, Bernard added, "ista autem graduacio est satis grossa, et hec sufficit propter iuvenes, quoniam exquisite et in puncto tradita est doctrina in libello de graduacione," De urinis, VIII, in MS VAp 1174, fol. 35v; also, "recurranmus ad libellum nostrum de gradibus, ubi perfecte tradita est natura graduacionis," ibid.

64. "Per viam autem sensus potissime simplicia cognoscantur. Si autem composita per viam experimenti vellemus cognoscere, via esset nimis longa et patiens interim in magno periculo poneretur. Oportet igitur quod sit aliquid medicum regulans et dirigens, quomodo possit medicus breviter cum compositis operari,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

hoc non potest esse nisi cum ratione...," De gradibus, ed. Julius Pagel, "Ueber die Grade der Arzneien nach einer bisher ungedruckten Schrift des Bernhard von Gordon aus dem Jahre 1303," Pharmaceutische Post, XXVIII (1895), 182.

65. The history and implications of this theory are discussed fully in a scholarly article by Michael McVaugh, "Quantified Medical Theory and Practice at Fourteenth-Century Montpellier," Bulletin of the History of Medicine, XLIII (1969), 397-413.

66. "Illustrissimi viri qui hanc scientiam fundaverunt, quorum notitia pervenit ad nos, fuerunt quattuor: primus fuit Galenus, secundus fuit Jacobus Alkindi, tertius fuit Averroes, quartus fuit magister Arnoldus de Villanova. Mihi autem tamquam abortivo data est gratia [I Cor. 15.8] colligendi et secreta modo aliquo reserandi...," De gradibus, ed. Pagel, p. 143-144.

67. TK 255, 691. See also Appendix I, below, for similar treatises by Stephanus Arlandi (ca. 1319), Jordanus de Turre (ca. 1330), and Gerardus de Solo (1371).

68. McVaugh, "Quantified Medical Theory," p. 402.

69. Incipit "Doctrinam de gradibus intendimus tripliciter ordinare, quarum prima est tristabilis cum amaritudine intellectus, secunda erit magnae consolationis, in qua delectabitur intellectus, tertia erit

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

magnae utilitatis, in qua satiabitur intellectus," De gradibus, ed. Pagel, p. 131. For MSS with this incipit see TK 460.

70. "Quam amara igitur erit natura graduationis, cum intellectus in eam non valeat penetrare! Non est ergo via nec doctrina aliqua quae possit nos ducere in naturam graduationis nisi solum experimentum et ita videtur deperire doctrina omnium de natura graduationis pertractantium.... per amorem nunc ergo quaero: quis intellectus, quae ratio in naturam horum pervenire potest per viam rationis certe non nisi solum per experimentum? Erit ergo natura graduationis amara cum tristitia intellectus...," De gradibus, ed. Pagel, pp. 131-133.

71. "Secunda doctrina est quae procedit per viam experimenti et fundatur supra radices Galeni in fine de complexionibus et in fine 5.particulae de simplici medicina," ibid., p. 143.

72. "Oportet 5 condiciones obervare; prima est haec, quod res sit denudata ab omni qualitate accidentaliter acquisita...(thus, e.g., pepper should not be frozen) aliter experimentum erit fallax," ibid.

73. "...una et eadem simplex medicina secundum sui diversam dosim in diversis erit gradibus collocata..., etiam

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

patet ex diversitate regionum, sicut patet in vinis, quoniam vinum de Cypro de vinea Eugadi,..., cum applicatur corpori humano agit actiones furiosi [sic] quoniam calefacit fortiter ipsum et furiose, potissime quando est antiquum, et ideo videtur aqua ardens...cito inflammat corpus et ascendit ad caput nisi cum multa aqua reprimatur, et ita videtur calidum in 4^{o}, et ita possumus dicere de vino Graeco quod crescit in altissimis arboribus prope Neapolim... Nunc autem inveniuntur alia vina debilissima alba subtilia et videtur quasi aqua vinata quasi non immutativa sensum..., et inveniuntur multa talia in Francia...et talia videntur in primo gradu vel forte magis frigida quam calida...," ibid., p. 260.

74. "...miserrimi ingenii est uti semper inventis," ibid., p. 144.

75. "Inchoatus autem est liber iste cum auxilio magni dei in preclaro studio montis pessulani post annum 20. lecture nostre, anno domini $m^{o}ccc^{o}iij^{o}$ mense julii," Lilium medicine, Prologue, in MS BM Harl. 3698, fol. 1r. For the date, which is given as 1305 in most printed editions, see Ynez O'Neill, "Dates in the Printed Editions of the Lilium Medicinae," Sudhoffs Archiv, XLIX (1965), 86-89. The date of the Lilium's

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

completion is unknown.

76. See Appendix II. The oldest extant Lilium manuscript is probably the above mentioned Harley 3698, of which I have a microfilm. This manuscript once belonged to Nicolas Cusanus (1401-1464); fol.99v contains a note, "N de Cusa qui emit a magistro fabricio de Lorch istum et alios plures libros de medicina et de artibus, qui fuerunt illius magistri petri rodmullir plebanus ibidem, quod 50 floribus renanibus. 1449." The manuscript (not listed in TK) is discussed by Rolf Winau, "Eine Lilium medicinae-Handschrift aus dem Besitz des Nikolaus von Kues," Medizin-historisches Journal, I (1966), 24-29. Two corrections might be suggested to Winau's article: the manuscript is not written "in karolingischer Minuskel" (p.24-5), and it is dated 5 February 1305 rather than 1304 (p.28), since the colophon on fol. 99v. has "fuit scriptus iste liber anno incarnacionis domini [beginning 25 March] m^{o}ccc^{o}iiij die sancte agathe virginis."

77. Into German (about 1350): see Constantin Carlowitz, Der Lepraabschnitt aus Bernhard von Gordons 'Lilium Medicinae' in mittelalterlicher Deutscher Übersetzung (Leipzig, 1913).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Into Hebrew by John of Avignon (Seville, 1360), and again by Jekuthiel ben Solomon (Narbonne, 2 May 1387): Moritz Steinschneider, Die Hebräischen Übersetzungen des Mittelalters und die Juden als Dolmetscher (reprint, Graz, 1956), p. 785. The Hebrew translations were apparently made from the Provençal, ibid., p. 786.

Into French (Rome, 1377): O'Neill, "Dates," p. 89.

Into Spanish (printed Seville, Meynardo Ungut y Stanislao Polono),O'Neill, "Dates," p. 87.

Into Irish, twice: see above, p.190and n.4.

78. For example, at Montpellier shortly after 1400, the Lilium was apparently required reading for bachelors in medicine: see Ernest Wickersheimer, "Le discours de réception d'un bachelier en médecine montpelliérain au début du XVe siècle," Bulletin de la Société Française d'Histoire de la Médecine, XIII (1910), 247. The bachelor in question was Heinrich Lamme of Lübeck.

At the University of Vienna in 1520, Martin Stainpeis listed the Lilium among the books which the young physician should acquire in the third year after his doctorate: see Richard Durling, "An Early Manual for the Medical Student and the Newly-fledged Practitioner: Martin Stainpeis' Liber de Modo studendi

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

seu legendi in medicina," Clio Medica, V (1970), 19.

For private libraries (in addition to that of Nicolas Cusanus, n.74), see A. Louis, "Analyse des Bibliothèques de deux médecins malinois du XVe siècle," Janus, LIII (1966), 241-305: one physician had one, the other two copies of the Lilium!

79. Incipit "Interrogatus a quodam Socrates quomodo posset optime dicere respondit si nichil dixeris nisi quod optime sciveris. nichil autem scimus nisi quod a nobis frequenter dictum est et quod commune est... ideo confidens de domino scienciarum quedam facilia et communia et utilia intendo ad utilitatem humilium pertractare, librum scilicet de practica compilare," Lilium, prologue, in MS BM Harl. 3698, fol.1r. For MSS and eds. see TK 772.

80. "Et quia humilibus scribo, ex hoc superbi abjecti sunt....Cum aliis scripta communia contempnentes immo erubescunt discere ex quo aliquid semel dictum est... Quia igitur memoria hominis labilis, quod communiter de practica dicitur repetere humilibus non erubesco...," Lilium, in MS BM Harl. 3698, fol.1r.

81. It is significant that, five years later, Bernard repeated that "non est multum temporis quod scripsi humilibus lilium medicine et quia sine livore et cum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

benignitate receptus est, ideo hoc opus libencius attemptabo," De conservacione vite humane, Prologue, in MS VAp 1174, fol.10r.(italics mine). The italicized phrase was incorrectly translated as "I wrote in all humbleness," by H.I. Bell, "The Bibliography of Bernard de Gordon's 'De conservatione vitae humanae'," 17th International Congress of Medicine (London, 1913), p. 328.

82. And "whoever does not reach the capacity of the illiterate vulgar and fails to make them listen to him, misses his mark," On Ancient Medicine, tr. Adams, in Theory and Practice, ed. Kelly, p. 2.

83. Thus, against consumption, he gives prescriptions which "sufficerent quantum ad provectos, propter tamen iuvenes magis particulariter procedamus," Lilium, IV.5, in MS BM Harl. 3698, fol.52v. Also, "quia socii iuvenes volunt quod fiat distinctio... ideo volo magis particulariter pertractare et ordinare, licet provecti non indigeant," ibid., IV.7, fol.54v. And after giving a complex remedy for wounds, he adds, "sed in hoc oportet quod medicus competens esset et multum expertus. Ad alia igitur currendum est," ibid., I.28, fol.18r. He also warned the iuvenes medici, ibid., II.10, fol.25r (italics

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

mine).

84. For example, the diagnostics of pain "satis declaravimus in tabula ingeniorum," and its treatment "oportet se fundare in istis radicibus sicut manifestabitur cum de regimine sanitatis scribemus," ibid., I.17, fol.9r. On diarrhea, "qui autem plus de ista materia scire voluerit, vadat ad librum nostrum de pronosticacione," ibid., V.16, fol.72r. And so on, passim.

85. William Lennox, "Bernard of Gordon on Epilepsy," Annals of Medical History, III (1941), 372.

86. "...cette pratique ne se distingue en aucun endroit par quelque nouveauté, soit dans l'arrangement des matières, soit dans les aperçus d'un esprit dont l'originalité a sa source dans la méditation prolongée ou dans l'expérience acquise," Littré, Histoire Littéraire, XXV, 326.

87. Among numerous others, Sarton, Introduction, III, 874. This assumption is challenged in an exhaustive study on the subject by Edward Rosen, "The Invention of Eyeglasses," Journal of the History of Medicine and Allied Sciences, XI (1956), 201-202.

Bernard prescribed an eyedrop which "est tante virtutis quod decrepitum faceret legere literas minutas sine oculo berellino," Lilium, III.5, in MS BM Harl. 3698, fol.39v-40r. In the Venice incunabulum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of 1498 (fol.41v), as in most early printed versions, "oculo berellino" has been replaced by "ocularibus."

88. Talbot, Medicine in Medieval England, p. 104. However, Talbot seems to contradict himself when he mentions a truss, prescribed by William de Congenis (early 13th c.), p. 94; and see also pp. 89-90.

Bernard recommends "bracale ferreum cum lingula ad modum semicirculi," Lilium, VII.7, in MS BM Harl. 3698, fol.91v.

89. Lennox, "Bernard de Gordon on Epilepsy," pp. 372-383. Less appreciative is the evaluation by E. Pirkner, "Epilepsy in the Light of History," Annals of Medical History, I (1939), 453-480.

Bernard's diagnosis of petit mal which, as he claims, he had observed frequently ("vidi frequenter"), is found in the Lilium, II.25, in MS BM Harl. 3698, fol.33r.

90. There are so many kinds of hemorrhage of the liver that "ad que narrandum non sufficiet presens dies, sed ista sufficiant causa brevitatis, quia circa brevitatem laboramus...et propter brevitatem potest reduci ad duas causas," ibid., VI.4, fol.79v.

91. For example, on the question whether coitus cures daily fever: "de ista autem materia nolo amplius

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

raciocinari, timens prolixitatem," ibid., I.2, fol.2r; also, "speculacionibus pretermissis," ibid., IV.9, fol.57v; and "nunc non est locus raciocinandi," ibid., V.2, fol.61r.

92. "...secundum Gal.omnia certis literis denotari non possunt," ibid., IV.5, fol.52v; also passim.

93. "Et si aliqua obmisi, suppleat hoc diligens amicicia lectoris," ibid., IV.4, fol.51r.

94. Lennox, "Bernard de Gordon on Epilepsy," p. 261.

95. On the cures for tertian fever, "opiniones tamen sunt de ista materia, et ideo consciencie operantis derelinquo," Lilium, I.4, in MS BM Harl. 3698, fol.3r.

96. "Hic traditur doctrina operandi, sed modus operandi particularis oportet frequenter mutare [Bernard here cites Heben Mesue]. Et ita diligens medicus poterit se aliquo modo in doloribus iuvare et informare," ibid., I.21, fol.12v. "Quoniam hic ponitur ars et doctrina, et multa relinquuntur medico particulariter operanti, quoniam in particularibus est magna diversitas," ibid., I.19, fol.11r. Also "componat igitur et permisceat cui datum est capud," ibid., IV.5, fol.53r, and so on.

97. Omitting the pharmaceutics in the cure for enuresis, Bernard states, "hic non servavi ordinem solitum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

causa brevitatis," ibid., VI.15, fol.88r.

98. Diseases "curentur sicut dicetur in locis suis. Non enim esset decens quodlibet in quolibet loco ponere," ibid., V.3, fol.61v. Bernard also constantly gives cross-references to pertinent chapters or passages.

99. This order seems to have originated with the Historia naturalis of Pliny (d.A.D. 79) according to Talbot, Medicine in Medieval England, p. 15. Mackinney, however, lists as the earliest instance the Compositiones medicamentorum of Scribonius Largus (1st c. A.D.), in "Medieval Medical Dictionaries," p. 243.

100. "Pro decoracione mulierum. Medicamen ad decorandum mulieres, et si fiat gracia virorum tolerabile est. Rx...reddit ipsam mulierem planam, equalem, et graciosam cuilibet intuenti. Cavendum tamen est quod istud fiat gracia virtutis, quoniam aliter punirentur cum inimico...," Lilium, VII.24, in MS BM Harl. 3698, fol.99r.

101. On the kinds of scab "auctores communiter loquendo non ponunt nisi duas species morphee...de quo summe miror, quia postquam morphea et lepra non differunt... et species lepre sunt quatuor, ita et morphee...sed

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

sciencia medicine rerum est sciencia, non vocum, sicut scribitur 3.de morbo [Gal.] et ideo nec de numero nec de nominibus curo, dum tamen res intelligamus... De nominibus igitur nulla est contencio, dum tamen res intelligamus," ibid., I.23, fol.16r.

102. "In primis hic et in quolibet morbo intendimus ad causam, quoniam si causam ignorares quomodo curares," ibid., I.7, fol.4v.

103. "Et ideo dicebat Ypocrates, neque quispiam medicorum mihi repertus est qui vires egritudinum cognoscere valeat...et ideo fedi errores sequuntur," ibid., IV.12, fol.59r. Also, "pauci sunt medici qui sciant bene distinguere...," ibid., IV.5, fol.52r. It may be noted that the term distinguere is apparently a Latinization of the Greek διαγιγνωσκειν, whence the English "diagnose."

104. For example, because gangrenes "sunt difficilis et quasi impossibilis curacionis, ideo curam restauratori relinquamus," ibid., I.19, fol.10v; the same for fistula, cataract, hemorrhoids, and so on, passim.

105. Treatment of a fractured skull "est difficile et periculosum et prolixum et maiori solemnitate indiget, ideo restauratoribus derelinquo," ibid.,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

I.26, fol.18v. Another interesting instance concerns scrophula: "finaliter oportet recurrere ad manum cirurgicam, sed caveat sibi restaurator a venis et arteriis et si non vadamus ad reges, quia reges consueverunt curare solo tactu et potissime serenissimus rex francorum, et ideo morbus regius appellatur. Aliqui sunt timidi et timent incisionem... in talibus rumpatur locus cum cauteridicis et sepe ircino et aceto; sed quod ista cura est turpis et difficilis nunc totaliter restauratoribus derelinquo," ibid., I.21, fol.12v.

106. "Si vulnus fuerit ex causis extrinsecis, ex noticia pacientis habentur...aut cum oculo aut digito et similibus que perfectius in libris cyrurgie continentur," ibid., I.26, fol.17v. "Diversa sunt vulnera et contusiones et fracture et lesiones diverse valde ideo illam latam longitudinem restauratoribus derelinquo," ibid., II.10, fol.25v. "Curam autem lapidis renum factam manu cyrurgica quantum est de presenti penitus derelinquo," ibid., VI.12, fol.87r.

107. Thus, if nothing else cures an abscess on the eyelid, "ad manum cyrurgicam recurramus et interior palpebrarum inversatur et abscindatur et nodus... abstrahatur et curetur vulnus sicut vulnera debent

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

curari," and Bernard goes on to describe several other eye operations, ibid., III.7, fol.40v. For abscesses of the uvula, "operamur hoc modo: restaurator percutiat uvulam cum flebotomo...," ibid., IV.2, fol.49rb.

108. "Si ergo locus sit talis quod possit incidi sicut in mamilla et similibus incidatur locus totus omnino cauterizatur et permittatur fluere multus sanguis, hoc autem fiat cum magna cautela quoniam periculosum est; apponatur ergo medicina sine mordicacione. Rx... sed quia ista passio est difficilis curacionis aut impossibile postquam antiquata est, ideo deinceps restauratoribus relinquamus," ibid., I.19, fol.11v.

109. "Cum dei auxilio sic incipiamus operari vulnus quod est magnum...(first apply a styptic)...deinde coniungamus labia vulneris cavendo quod in vulnere non sit oleum vel pulvis nec aliqua res preter naturam. Deinde suamus et filum sit planum et equale de serico et acus quadrata et in quolibet puncto fiat nodus et insuper nodando in quolibet puncto usque ad finem. Deinde ligamus et plumaceoli [?] duplicati desuper apponuntur et cavendum ne aqua approximetur vulneribus...," ibid., I.26, fol.18r. Bernard also describes the surgical procedure to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

drain the water in cases of peritoneal dropsy, ibid., VI.5, fol.81r.

110. Bloody ulcers are hard to cure, "et ideo curam cyrurgico relinquamus qui cum ferro et realgar represso curabit si deus voluerit," ibid., I.19, fol.10v.

111. I have, however, not found this term used anywhere else. It would be the exact synonym of cyrurgicus according to the 1498 printed edition, where we read "regimen medicorum et restauratorum, scilicet cyrurgicorum," I.31, fol.21r. But the MS has "et" instead of "scilicet," f.20v.

112. A medication for keener sight "valet barbitonsoribus, ut possint percutere in medio vene...," ibid., VII.21, fol.98r-v. Surprisingly, this is the Lilium's only mention of barbers, despite its frequent discussions of phlebotomy; and elsewhere Bernard spoke of venesection "cum lancea que fit per manum restauratoris": De conservacione vite humane, I. De flebotomia, I, in MS VAp 1174, fol.10v.

113. "Bernhard zeigt schon Spuren scholastischer Lehrmethodik in mancherlei akademischen Quaestiones...," Theodor Meyer-Steineg and Karl Sudhoff, Illustrierte Geschichte der Medizin, 5th ed. (Stuttgart, 1965), p. 146.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

114. "Queritur de sternutacione utrum sit motus morbi an sit motus nature...," Lilium, II.23, in MS BM Harl. 3698, fol.32v.

115. "The work is a faithful reflection of the subtle scholasticism, the polypharmacy and the superstition of the age, and from its contents represents only a perpetuation of Arabic views...," Max Neuburger, History of Medicine, tr. by Ernest Playfair (London, 1925), II, 76.

116. Donald Campbell, Arabian Medicine and Its Influence on the Middle Ages (London, 1926), II, 163. This verdict seems based on Neuburger's convenient one-sentence evaluation, and was also borrowed, almost verbatim, by more recent historians. Their borrowings are poignant illustrations of non-medieval lack of originality: "It is a typical Arabist textbook... characteristic of the Middle Ages, marked by scholastic subtlety and rigid adherence to dogma," Benjamin Gordon, Medieval and Renaissance Medicine (New York, 1959), p. 284. Also, in one of the most widely used manuals of medical history, we read that "The Lilium...is a characteristic Arabist textbook..., nowise classic, and typical of the Middle Ages in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

scholastic subtlety and rigid adherence to dogma," F.H. Garrison, Introduction to the History of Medicine, 4th ed. (Philadelphia, 1960 c. 1929), p. 164.

117. Gilbert, Bernard, and John appear as a trio in Chaucer's Canterbury Tales: see Chapter IV above. I have examined the Compendium medicine Gilberti Anglici (Lyon, 1510) and the Rosa Anglica (Pavia, 1492, Klebs 424.1), both in the New York Academy of Medicine.

It would be equally instructive to compare the Lilium with a half dozen other compendia on medical practice, composed at Montpellier in the period (see Chapter III above, and Appendix I below). Such a comparison, however, would greatly overburden the present chapter, and I hope in the near future to devote a special study to it.

118. It is, therefore, misleading to assert that "Gordon omits the surgical passages which Gilbert incorporated in his work," Thorndike, Magic, II, 480 and n.1, quoting Henry Handerson, Gilbertus Anglicus; Medicine of the Thirteenth Century (Cleveland, 1918), p. 77, to the effect that "Gordon's work does not contain a single chapter on surgery proper."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

119. While the term "scholastic medicine" is widely used, an accurate definition on the basis of a comparative investigation of the works would be a valuable contribution to scholarship. Meanwhile, a thoughtful and positive evaluation can be found in Paul Diepgen, Frau und Frauenheilkunde in der Kultur des Mittelalters (Stuttgart, 1963), pp. 82-89 and 157.

120. "A morbis universalibus appositi nostri intentio est inchoare et dictiones particulares magistrorum quod in opere medicationis expertissimas aggregare," Gilbertus Anglicus, Compendium medicine, fol.2r. And "consuetudo nostra est ex dictis meliorum meliora aggregare et ubi dubitatio est opiniones diversas interserere ut quisquis sibi eligat quam velit retinere," ibid., fol.55v.

121. George Sarton, "Lilium medicinae," Medieval Studies in Honor of J.D.M. Ford (Cambridge, 1948), p. 240.

122. The tally of quotations in the Rosa is given by William Lennox, "John of Gaddesden on Epilepsy," Annals of Medical History, I (1939), 284. Gaddesden also quoted Gordon three times.

123. "Lilium medicinae," p. 242.

124. The whole Laurea bears "den Charakter einer nur selten von eigenen Entwurfen unterbrochenen

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Zusammenstellung des Überlieferten ...," Diepgen, Frau, p. 89. In the Lilium "imponiert die besonders klare Ordnung und lehrmassig gut verständliche kurze Darstellung des Gegenstandes," ibid., p. 92.

The Rosa is "eine minderwertige Nachahmung des Lilium medicinae," ibid., p. 81.

125. "Finalement s'est eslevee une fade Rose Angloise... j'avois creu de trouver en elle suavite d'odeur, i'ay trouve les fables de l'Espagnol [Petrus], de Gilbert et Theodoric...," Guy de Chauliac, La Grande Chirurgie, ed. E. Nicaise (Paris, 1890), p. 14-15. At the same time, Guy judged that Bernard "valde bene tractavit" such a difficult subject as epilepsy, ibid., p. 414.

Gaddesden himself, however, had a high opinion of his Rosa: "as the rose overtops all flowers, so this book overtops all treatises on the practice of medicine, and it is written for both poor and rich surgeons and physicians, so that there shall be no need for them to be always running to consult other books...," preface, tr. by Lennox, "Gaddesden on Epilepsy," p. 285. John's self-praise may be compared with the humility of Bernard's preface to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the Lilium.

126. "Inchoatus est enim iste liber in preclaro studio montis pessulani anno incarnacionis domini millesimo ccc^{o}vij^{o}xxij die februarij, luna celebrante synodum cum sole versus vij gradum piscium," Liber de conservacione vite humane, end prologue, in MS VAp 1174, first half 14th c., fol.10r-v. Unless otherwise indicated, references hereinafter are to this MS, of which I have a microfilm.

The date and the astronomical references are carefully verified by Ynez O'Neill, "The History of the Publication of Bernard of Gordon's Liber de Conservatione Vitae Humanae," Sudhoffs Archiv, XLIX (1965), 269-279.

127. "Inchoatus autem fuit iste liber 22 die Februarij sicut principio est dictum. Terminatus est autem cum auxilio magni Dei nona die Novembris eiusdem anni circulo, luna existente in virgine, vicesimo quinto gradu. Explicit liber de conservatione vite humane die innocencium 28 December 1311," Regimen sanitatis, colophon, in MS BM Sl. 3097, fol.61r, cited by O'Neill, "The History," p. 273.

128. The unity of the work was suggested by Sudhoff, "Schriftstellerei," pp. 171-174, and demonstrated

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

by H. Bell, "The Bibliography of Bernard de Gordon's 'Liber de Conservatione Vitae Humanae'," 17th International Congress of the History of Medicine (London, 1913), 325-337. Bell's article was brought up to date by O'Neill, "The History."

129. Incipit "Homo enim est princeps et rex omnium animalium et ideo incedit capite elevato: ista proposicio scripta est a Galeno in particula de iuvamentis membrorum in principio... cavendum ergo est cum summa diligencia ut mensura temporis in virtuosis operacionibus totaliter expendatur...," Liber de conservacione vite humane, prologue, in MS VAp 1174, fol.9v. For MSS see TK 635 and 637.

130. Incipit "Dilexi veritatis scienciam investigare, credens nullum melius posse adiuvare in mundo et magis proximus fieri Deo. Ista proposicio scripta est a principe medicorum Gal.vij de ingenio cap. primo. Innuit nobis Gal.modum et viam per quam possumus in via disponere ad beatitudinem.... Quod autem beatitudo adquiratur per inquisicionem veritatis...potest manu duci per hunc modum... Studium veritatis est summa disposicio ad adquirendum lumen beatitudinis gloriosum," De conservacione vite," II. De urinis, preface, in MS VAp 1174, fol.26v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

See TK 433.

131. "In majori igitur proposicione tria sunt declaranda sc. operacio virtuosa, liberum arbitrium, gracia gratum faciens ...Patet igitur maior proposicio... restat igitur declarare minorem, quod autem studere in veritate sit opus valde virtuosum... Ex dictis igitur patet quod qui studet in veritate multum ad beatitudinem se disponit..." This conclusion, in turn, became the major premise for a second syllogism, deducing that "bona corporis disposicio non potest perfecte cognosci sine sciencia urinarum, ideo utile est multum aliquid de urina aggregare...," De urinis, in MS VAp 1174, fols.26v-27r (italics mine).

132. Incipit "Secundum intencionem Aristotelis primo ethicorum vita humana est triplex, vita sc.voluptuosa et vita civilis seu politica et vita contemplativa seu speculativa...," De conservacione vite, IV. Regimen sanitatis, preface, in MS VAp 1174, fol.52v. See TK 1420.

133. "Tercia autem etas est etas senectutis et in hac vita vivunt homines supra se quam dicunt vitam contemplativam seu speculativam seu divinam seu angelicam... et ita senes sunt beati et felices... Et

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

dicit Gal.senectus est semita ad mortem. mors autem secundum Aristotelem iii ethicorum est ultimum terribilium. tota autem etas senectutis non est aliud nisi mors," Regimen sanitatis, in MS VAp 1174, fols.53v-54r.

134. "Ut ergo huius corpusculi aliqualiter prolongare possimus regimen sanitatis cum dei auxilio inchoemus istas tres etates diligentissime persequendo a die nativitatis usque ad ultimam horam mortis et ita post separacionem cum dei auxilio gaudentes ante tribunal iudicis veniamus," ibid.

135. Incipit "Flebotomia est evacuacio utilis multitudinem humorum evacuans: hoc est descripcio Avicenne fen iv primi libri...," De conservacione vite, I. De flebotomia, I, in MS VAp 1174, fol.10v. See TK 563.

136. Especially to Galen's commentary on the Aphorisms: thus, he refers to the "vii^{o}folio,circa dimidio," but urges "et lege totu comentum," De flebotomia, in MS VAp 1174, fol.15r. Since this MS is an early one (first half of 14th c.), and since the references are an organic part of the text, it seems unlikely that they were interpolated later. Therefore, Bernard may have been referring to a copy that was publicly available to the students. In other instances, Bernard refers to Galen's "X de Ingenio,cap.ix, linea xxxiij," ibid., fol.12 v; and so on.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

137. "...erant pertractata...a Gal.in multis locis valde, quia fuit consuetudo Galeni quod raro voluit omnino totam materiam aggregare in uno loco. Oportet igitur istos canones aggregare secundum intencionem doctorum," De flebotomia, in MS VAp 1174, fol.12v.

138. "...et multa consimilia que cadunt circa istam materiam sed dimitto propter brevitatem," ibid., I.16, fol.23v.

139. "...et si quodlibet istorum declaretur timeo prolixitatem et forte aliquo modo esset extra propositum. Ecce tamen quid dicit Avicenna...et Galen...," ibid., I.8, fol.19v.

140. "Utilissimum ergo signum videtur esse sumptum a sanguinis disposicione facta per flebotomiam, licet medici ut plurimum sunt negligentes in aspiciendo sanguinem extractum per flebotomiam," ibid., fol.20r.

141. "...patet arrogancia et ignorancia quorumdam qui dedignantur et nauseant iudicia urine," De conservacione vite, II. De urinis, 1, in MS VAp 1174, fol. 28r.

142. Incipit "Urina est colamentum sanguinis et similiter ceterorum humorum ex nature actionibus natum: ista proposicio scripta est ab Isaach versus principium libri de urinis," ibid., fol.27r. See TK 1608.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

For the Montpellier curriculum, see chapter II above; see also Appendix I, below, for works on urines by Gualterus Agilon, Jordanus de Turre, and Albert of Montpellier.

143. "Brevior tamen et facilior modus graduandi propter iuvenes est iste...hec sufficit propter iuvenes, quoniam exquisite et in puncto tradita est doctrina in libello de graduacione," De urinis, in MS VAp 1174, fol.35v-36r.

"Et quia iuvenes multum gaudent in experimentis, ideo aliqua ponamus, Rx...," ibid., fol.42v.

144. In the prologue, Bernard outlined the organization of his treatise and stated, "hic addemus curaciones et preservaciones et supplebimus si que obmisimus in Lilio et specialiter de emitriteis de quibus parum diximus in Lilio causa brevitatis;...in quolibet capitulo inseremus aliquam dubitacionem iuxta modum nostre potencie...," ibid., fol.27r.

145. "Queritur utrum de urina posset esse sciencia...(no, if urine is considered absolute, as a subject by itself; yes, if considered relative, in relation to other diagnostic methods). Quare concluditur quod non sufficit habere de urinis vagam scienciam et confusam, sed certam et determinatam, sicut erit

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

infra per totum Deo duce manifestum," ibid., fol. 28r.

146. Incipit "Pulsus est nuncius qui non mentitur, preco qui occulta reserat motibus contrariis disposicionem cordis, arteriarum et tocius corporis manifestans. In ista descripcione tangitur tota materia pulsualis...," De conservacione vite, III. De pulsibus, in MS VAp 1174, fol.51rb. See TK 1150.

147. "Alvaredus scribit quod cor est vite domicilium...," ibid., fol.51v. The reference is probably to the De motu cordis, which Alfred of Sareshel (early 13th c.) dedicated to Alexander Neckam (1157-1217). For Alfred see Thorndike, Magic, II, 187 and passim; and Sarton, Introduction, II, 561-562 and passim.

148. "Constrictionem pulsus solus Deus novit et Galenus servus eius et quidam alii paucissimi...," De pulsibus, in MS VAp 1174, fol.52r.

149. This classification illustrates the difficulty of reading the pulse, since velocity was only one among the several criteria. Besides the velocity of the pulse, the physician had to measure its regularity and strength. There were, moreover, such subtle qualitative distinctions as "species autem pulsus inequalis sunt multe, sicut est serenus, fluctuans,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

undosus, artualis, marculentus, caprizans...," De pulsibus, in MS VAp 1174, fol.52v.

150. "Ad particula autem pulsuum non condescendo quoniam secundum ultimum mee debilis potencie aggregavi supra librum venerabilis Egidii de pulsibus et cui istud non sufficit ad illud transvolvatur," ibid.

151. See chapter II above, p.84 . In his treatise on urines, however, Bernard does refer several times to Theophilus' De urinis. The fact that uroscopy was more important at Montpellier than pulses would also appear from the number of treatises on urines composed there in this period: six, against only two on pulses.

152. "...quoniam alibi cum auxilio divino intendimus pertractare per modum tabularum... De pulsibus dico tantum, qui habet artem et exercicium longum minus de pulsibus ignorabit. Excuso tamen me de prolixiori determinacione, quia per dei graciam longius tractaturus sum hanc materiam arduam," Liber pronosticorum, IV.5, in MS VAp 1174, fol.90v.

153. Thus, in 1295 he promised to say more on the ages of man "in libro de regimine sanitatis, cum regimen principaliter tractabimus," Liber pronosticorum,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

II.6, fol.83r. Also, in the Lilium (1303) Bernard gave a brief regimen, "licet per dei graciam de regimine sanitatis longiorem intendamus edere tractatum," Lilium, V.8, in MS BM Harl. 3698, fol. 66r.

154. See chapter II above.

155. The first Montpellier general regimen was apparently composed in 1281 by an anonymous author (TK 313, item 12), who may have been the "bachelor of Montpellier" of another regimen (TK 731, item 11). It is also from the end of the thirteenth century that Montpellier masters such as Arnold of Villanova, Gregory, Jordanus de Turre, and others, began to produce "custom-made" regimens for individuals (see Appendix I), which were based on the general regimen.

156. While traditionally it has been believed that Arnold at least wrote a commentary on the Salernitan regimen, Karl Sudhoff suggested that Arnold was in fact the editor of this treatise: see "Zum Regimen Sanitatis Salernitanum," Archiv für Geschichte der Medizin, XII (1919), 158ff. The latest expert on Villanova, on the contrary, classified even the commentary among Arnold's spurious works: Juan Arellano Paniagua, Estudios Y Notas sobre Arnau de

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Vilanova (Madrid, 1963), p. 42. For the date of Arnold's own Regimen, see ibid., p. 73.

157. See Wickersheimer, Dictionnaire, I, 76.

158. See chapter VI, n.9 below.

159. Bernard had requested Profatius to draw up an armillary; see chapter IIIabove, p.121 .

160. Incipit "Mulier cum approximatur ad partum debet ire suaviter per loca declivia...," De conservacione vite, IV. Regimen sanitatis, in MS VAp 1174, fol. 54v. For MSS with a slightly different incipit see TK 884.

161. "Queritur utrum aliquis possit per artem conservari in regimine sue sanitatis sine errore ita quod esset longevus et veniat ad terminum senectutis et videtur quod sic," Regimen sanitatis, XVII, in MS VAp 1174, fol.72v.

162. "Queritur cuius complexionis sit vinum, et mittitur quod humidi," ibid., IV, fol.57r. Another example, "Queritur utrum balneum aque frigide impediat augmentum," after the chapter on "accidentia anime," ibid., XV, fol.69r.

163. "Regimen sanitatis consistit in debita applicacione sex rerum non naturalium," ibid., XVII, fol.72v.

164. The Galenic origin and the development of this idea

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

has recently become the subject of lively interest: see L.J. Rather, "The 'Six Things Non-Natural': A Note on the Origins and Fate of a Doctrine and Phrase," Clio Medica, III (1968), 337-347; Saul Jarcho, "Galen's Six Non-Naturals: A Bibliographic Note and Translation," Bulletin of the History of Medicine, XLIV (1970), 372-377; Jerome Bylebyl, "Galen on the Non-Natural Causes of Variation in the Pulse," BHM, XLV (1971), 482-485; and Peter Niebyl, "The Non-Naturals," BHM, XLV (1971), 486-492.

165. In the Lilium's chapter on the regimen, on the other hand, Bernard did not mention the "six things non-natural". He did, however, discuss air, as well as habit and daily schedule, placing the emphasis on diet: "circa regimen sanitatis cadunt VII consideraciones, primum sumitur a quantitate cibi et potus, 2. a qualitate, 3. ab ordine, 4. a complexione, 5. a consuetudine, 6. a tempore, 7. ab etate," Lilium, V.8, in MS BM Harl. 3698, fol.66v.

166. "Nobilissima ergo est ars sanativa que ita feliciter facit hominem vivere et tamen nullus est qui velit medicum in tempore sanitatis ymmo quod est magis abhominabile medici nostri temporis non curant scire regimen sanitatis quia videtur eis quod non sit ibi

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

lucrum sed in curacione morborum et potissime febris sunt bene solliciti et attenti," Regimen sanitatis, XVII, in MS VAp 1174, fol.72v.

167. Ed. Julius Pagel, "Ueber den Theriak, nach einer bisher ungedruckten Schrift des Bernhard von Gordon," Pharmaceutische Post, XXVII (1894), 205-206, 220-224, 235-237, 257-262.

168. I used photocopies of two early MSS: VAp 1234, early 14th c., fols.135v-139v; and BM Sl. 3096, early 14th c., fols.335v-336v. The former is not in TK the latter is, though unidentified: TK 848, item 6.

Since this treatise has never been printed and is extant in only a few MSS, I owe special gratitude to Professor Kibre, who discovered the Vatican MS and drew my attention to it in 1970. I hope to publish shortly a text edition from several MSS, together with a detailed analysis of the De marasmode. See also n.191 below.

169. Incipit "Tyriaca est confectio magna curans omnem venenosam aegritudinem a proprietate. Istam enim diffinitionem possumus juxta quandam nostram consuetudinem exponere sex modis: 1° dubitabiliter... Tractatus primus de expositione quaestionali (Quaestio). Quaeritur igitur utrum tyriaca possit exhiberi

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

corporibus sanis...," De tyriaca, I, ed. Pagel, pp.220-221. For MSS see TK 1574.

Incipit "Sed ut servemus consuetudinem nostram antequam veniamus ad intencionem queramus aliquod circa istam materiam et erit questio: Utrum seminaria intrent materialiter constitucionem fetus," De marasmode, Prologue, in MS VAp 1234, fol.135v.

170. See the synoptic table of Bernard's authorities in chapter VI below.

171. "Intelligendum est hic quod nos ordinavimus per dei graciam quatuor opuscula diu est propter istud opus, et si adderentur hoc esset opus perfecti magisterii, scilicet libellus de regimine acutorum et libellus de crisi et de diebus creticis, et libellus qui intitulatur tabula ingeniorum, et sine ista factum est nichil, et libellus de graduacione," Lilium, epilogue, in MS BM Harl. 3698, fol.99v.

172. "...tyri, ex quibus conficitur tyriaca," ibid., I.14, fol.8r. In the same chapter on snakebites, Bernard mentioned theriac among the antidotes, but did not describe the composition.

173. "...intelligendum quod medicine liberantes a venenis secundum Galenum et Averroym verbo suo de tyriaca sunt medicine inter medicinas et venena...tyriaca

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

tamen non competit in corporibus temperatis...ista sunt verba Averroys in libro suo de tyriaca," ibid., I.13, fol.7v. (This passage is missing in the three printed editions of the Lilium which I have examined).

174. "Ich halte diese...kleine Abhandlung aber für eine frühere Jugendarbeit des Gelehrten...vielleicht seine früheste erhaltene Ausarbeitung." In a footnote, Sudhoff added that Bernard seems "sie dann allerdings als pure Kompilation gar nicht zu seinen 'Werken' gerechnet zu haben." Ironically, on this assumption Sudhoff then based an evaluation of Gordon as 'progressive': "Er hatte sich damit also von mittelalterlich literarische Hochwertung rein kompilatorischer Arbeit in bemerkenswerter Weise emanzipiert," Sudhoff, "Die Schriftstellerei," p. 180 and n.2.

175. See, for example, the observations made earlier in this chapter with regard to the Tractatus de gradibus and the Lilium.

176. Die Chirurgie des Heinrich von Mondeville nach Berliner, Erfurter und Pariser Codices, ed. Julius Pagel (Berlin, 1892), pp. 406-474.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

177. For a stimulating analysis of the difference between Bernard's approach and that of Arnold with regard to theriac, and of its implications for Montpellier's academic medicine "from a still somewhat empirical to a markedly philosophical or theoretical orientation," see Michael McVaugh, "Theriac at Montpellier, 1285-1325 (with an edition of the Questiones de Tyriaca of William of Brescia)," Sudhoffs Archiv, LVI (1971), 113-144.

178. The possible relation between Bernard's Tractatus de gradibus and Arnold's Aphorismi de gradibus was discussed above, p.263 . However, whereas Bernard supported Arnold's views in the De gradibus, he implicitly disagreed with Arnold on theriac. Bernard followed Averroes, whom Arnold--an almost fanatical anti-Averroist--denounced.

Arnold's Epistola "was finished early in Arnald's tenure as master at Montpellier between 1292 and 1299," according to McVaugh, "Theriac," p. 115.

179. McVaugh, "Theriac," pp. 116,118.

180. "De aliqua virtute [tyriace] penitus nihil potest sciri nisi solo experimento sicut dicit Galenus in de simplici medicina cap.2 in fine capituli et Avicenna in V^{o} canonis," De tyriaca, ed. Pagel, p. 257.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

181. "...credo quod non fuit intentio Avicennae quod tyriaca competeret in corpore bene sano, sed in notabiliter lapso," ibid., p. 223.

182. We can, therefore, agree with the comment of the editor of the treatise, that the first chapter meant "einen entschiedenen Ruckschritt," and that "es klingt Alles sehr tiefsinnig und ist doch höchst geistesarm," Pagel, "Ueber den Theriak," p. 205 and p. 224.

183. Perhaps Pollex ('Poli medici'), De venenis, incipit "Prima pars est de speciebus venenorum...," TK 1094.

184. "...dimisit nobis Hippocrates in mandatis in testamento suo: non doceas potionem mortiferam nec aborsum," De tyriaca, ed. Pagel, p. 259. It would be worth investigating, on the basis of the term testamentum, whether Bernard knew the oath through an intermediary, such as Galen or Avicenna or an early commentator, or from direct Latin translations. Some further information about the tradition of the oath is in the studies cited in ch.I,nn.105-6.

185. "Valebat igitur tyriaca antiquitus sed moderno tempore propter velocitatem actionis in corpore parum valet," De tyriaca, ed. Pagel, p. 259.

186. "Dosis autem tyriacae quaedam conjectatur proxima

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

veritati ad minus potest esse 1/2 scrup.sed in fortioribus venenis dr.2. Alia autem quae sunt inter ista sunt doses mediae...," ibid., p. 260.

187. "Accidit quod quidam apothecarius vendiderat toxicum et remansit in ungue pollicis aliquid et incepit fricare nares ab intus cum pollice et incepit color ejus mutari et frequenter syncopizavit et accepit dr.3 et magis gravabatur et versus mediam noctem fui vocatus et vidi, quod quantitas tyriacae erat nimia et feci quod evomeret et postquam sufficienter evomuit, dedi sibi dr.1 tyriacae et curatus est," ibid.

188. "Nichilominus possibile esset per naturam altiorem invenire confectionem et magis amicabilem corpori humano quam sit tyriaca ubi nulla est venenositas sicut in fine huius libelli manifestabitur," ibid., p. 223.

189. "Cap.6 de medicamine alciori quod excedit tiriacam et omnen perspicacitatem luminis naturalis (colophon: id est secundum aliquas species diptami [?] ipse tamen exponit in lilio cap.13 de venenis). Rx... Istud autem electuarium in causis calidis et frigidis et in egritudines et in omni causa...valet et in passione cuiusquamque membri...et mirifice prodest senibus...Et est de invencione nostra. benedictus

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

igitur qui terminavit et menti aride tribuit roritatem.Amen," De tyriaca, in MS VAp 1083, fol.326v. The Latin text of this chapter was omitted in the ed. of the De tyriaca by Pagel, who published it in his Angebliche Chirurgie des Heben Mesue Junior (Berlin, 1893), p. 144.

190. "Capitulum ultimum de confeccione ducente ad insenescibilitatem. Colligantur in primis quinque aque... Istud enim electuarium supposito bono regimine reddit hominem insenescibilem quantum est possibile per naturam quoniam confortat cor et viscera...et addit in calorem naturalem...quoniam ex alciori potencia (sciencia) processit quasi sit qualibet perspicacitas luminis naturalis. et est de invencione nostra. Benedictus igitur qui incepit terminat et menti (menti aride) tribuit veritatem (roritatem).Amen," Tractatus de marasmode, fol. 139v.

The variants (in parentheses) are found in MS BM Sl. 3096, fol.336v. Emphasis mine, in order to highlight the parallels with the passage in the preceding note. The similarities were also pointed out by Sudhoff, who published this chapter (from Erfurt MS Amplonianum Q.227) without knowing that it

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

belonged to the De marasmode, "Schriftstellerei," pp. 186-187.

191. See note 168 above. The Tractatus de marasmode was mentioned in passing by Sudhoff, "Schriftstellerei," p. 184; and by Pagel, "Ueber den Theriak," p. 205.

An important aspect of the treatise was most recently discussed in a still unpublished study by Michael McVaugh, "The Humidum Radicale in Thirteenth-Century Medicine," (typescript, kindly sent to me by the author), pp. 12-16 and p. 18.

192. "Utrum seminaria intrent materialiter constitucionem fetus," De marasmode, in MS VAp 1234, fol.135v.

193. "Qui ergo vult esse fecundus viam teneat medicorum; qui autem aliter voluerit speculari teneat viam phylosophorum. Avicenna autem dicit in canone quod ignorancia phylosophie in hoc casu non nocet medico. Si autem dicatur sic vel sic, nichilominus fit generacio," ibid., fol.136r.

194. "Ad secundum [viz. quod semen est principium formale], quoniam quod est formale non est materiale. Verum est quoniam forma non potest esse materia nec e converso. Et ideo ex alio est forma informans et ex alio materia que informatur. Forma igitur ut forma non intrat sed quod erat subiectum forme," ibid.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

195. "...materia seminalis que est subiectum istarum transmutacionum intrat materialiter constitucionem fetus; forma autem substancialis que erat in semine et intelligencia divina et spiritus gignitivus... non intrant materialiter...," ibid.

"Preterea nichil est in potencia ad animam nisi quod sufficienter actum et passum est ab anima, quoniam licet potencia precederet actum rei unius et eiusdem, rerum tamen diversorum [sic] actus precedit potenciam semper...," ibid.

196. "Et ista videtur demonstracio sicut potest fieri demonstracio circa talem materiam, et ideo in ista materia ista racio videtur Achilles, cuius operaciones erant eroyce et immortales secundum Aristotelem," ibid.

197. "...si nos velimus tenere viam phylosophorum dicemus quod non, quoniam semen viri tenet locum factoris et informantis sicut dicit Aristoteles xv° de hystoriis animalium; de semine autem mulierum dicit quod... non videtur habere operacionem et hoc idem vult Avicenna xv°libri sui de historiis animalium. Et dicit Aristoteles quod conceptus potest fieri sine semine mulieris. Deinde venit Averroys 2° sue theorice...," ibid., fol.135v.

198. Lilium, VII.8, in MS BM Harl. 3698, fol.92v. In

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

fact, the entire introductory question is found in embryonic form in the Lilium, VII.14, ibid., fol.95r, where Bernard also cited Albertus Magnus ("omnem potenciam precedat actus").

199. However, Bernard assures us that the questio is "circa istam materiam" (see above, n.169), and the connection is probably implicit in the theory that "semen autem quod est residuum quarti cibi" (De marasmode, in MS VAp 1234, fol.136r) is also the source of the "humidum radicale" (discussed below). For the connection in Avicenna's thought, see Thomas S. Hall, "Life, Death and the Radical Moisture; A Study of Thematic Pattern in Medieval Medical Theory," Clio Medica, VI (1971), 4.

200. "Capitulum primum. De diffinicione marasmodis et eius explanacione. [Incipit] Marasmon est corrupcio viventis corporis in siccitate," De marasmode, in MS VAp 1234, fol.136v. For MSS with slightly different incipits, see TK 848.

201. Bernard's treatise is "secundum intencionem Galieni" according to the title in the MSS.

Galen's De marasmode was also known, sometimes as De tabe, more often as De marcore: ed. C.G. Kuhn, in Claudii Galieni Opera Omnia, VII (Leipzig, 1824),

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

666-704. For MSS and incunabula see TK 848 and 1551.

It would be worth further study to determine which translation of the Galenic work was used by Bernard. A convincing argument for the late date of his composition would be provided if it could be established that he used the translation by Niccolò da Reggio, for which see Lynn Thorndike, "Translations of Works of Galen from the Greek by Niccolò da Reggio (c. 1308-1354)," Byzantina Metabyzantina, I (1946), 226.

So far as I can determine, the spelling De marasmode, from the Greek μαρασμον, seems to have been used only by Bernard, while others preferred the latinized form marasmus.

202. Hall, "Life, Death and the Radical Moisture," p. 10.

203. This hypothesis, however, would contradict the view of Professor McVaugh, who apparently assumes that Bernard's discussion of the subject preceded that of Arnold: "Humidum Radicale," pp. 15-16.

204. I consulted Arnold's De humido radicali in the pr. ed. of his Opera (Lyon, 1509), fols.38v-42v. For MSS see TK 413 and 415. Arnold's treatment of the radical moisture is ably analyzed by McVaugh, "Humidum Radicale," pp. 15-17; his ideas were also surveyed briefly by Hall, "Life, Death and the Radical

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Moisture," pp. 10-14.

205. McVaugh, "Humidum Radicale," p. 14.

206. For a survey of the Greek roots and Arabic (especially Avicennan) formulation of the doctrine, see further the essential article by Hall, who seems to have opened up the topic for exploration. For Montpellier before 1300, see further McVaugh, "Humidum Radicale," pp. 1-12.

207. "Cap.quartum de manifestacione marasmodis per etatem senectutis... duo sunt principia vite, scilicet calidum et humidum... Quamdiu autem hoc calidum naturale potest esse in humido radicali, tamdiu est vita... Et ideo nichil aliud est mors quam extinccio calidi naturalis in humido radicali," De marasmode, in MS VAp 1234, fol.137v.

208. "Cap.tercium de manifestacione marasmodis per exemplum. Circa naturam marasmodis est advertendum ad ea que apparent nobis in lampade...," ibid., fol. 137r-v.

For the use of this comparison by Galen and Avicenna, see Hall, "Life," p. 5 and p. 7.

209. Thus, in the Liber pronosticorum, I.6, "De febrium differencia," in MS VAp 1174, fol.80ra-b; in the Lilium, I.9, "De febri ethica," in MS BM Harl. 3698,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

fol.5va-b; in the De tyriaca, ed. Pagel, pp. 222-223; and in the Regimen sanitatis, Prologue, in MS VAp 1174, fol.53vb. However, in the Lilium Bernard mentioned only the "substancialis humiditas" and the wick, in the De tyriaca only the "calor naturalis," and in the Regimen only the "humidum radicale."

It is also worth noting that neither the term marasmon nor its synonyms are found in any of the above works, including the encyclopedic Lilium.

210. "Cap.quintum de manifestacione marasmodis per species ethicorum. Intelligendum igitur...quod in corpore nostro est triplex humiditas," De marasmode, fol.138v.

With "certain pre-Avicennian Arabs...Galen's trio became a quartet to which Avicenna presently gave the name 'secondary'...," Hall, "Life," p. 7 and passim.

211. The first set: 1.humores in venis et arteriis, 2. pinguedo et adeps et caro, 3.ros et cambium, 4.glutinum: De marasmode, in MS VAp 1234, fol.137v.

The other set: "1.in concavitate venarum et arteriarum MS BM Sl. 3096, fol.336v, has "capillarium" ... et appellatur ros, 2....in porositatibus et foraminibus membrorum...et appellatur cambium, et ex hac materia nutriuntur membra et residuum fit materia

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

seminalis. 3[a] autem humiditas appellatur glutinum, et hoc est cum cambium transubstanciatum est ad naturam membri...," and this set becomes more confused until Bernard gets to 4.the "humidum radicale," ibid., in MS VAp 1234, fol.138v-139r.

212. "Videtur michi quantum est de presenti quod in aliqua specie febris ethice non est aliquid signum distinctum distinguens realiter unam speciem ab alia," ibid., fol. 139r.

213. "De ista autem materia sumus locuti supra librum de differenciis febrium Gal.et ideo non curo hic," ibid., fol.138v; also fol.139r.

214. See above, n.171.

215. See above, n.208. The assumption that it was not a separate book is supported by the fact that Bernard did not use the terms "liber", "libellus", "tractatus" or the like for this commentary.

216. "Et de ista materia [viz.lepra] per Dei graciam singularem tractatum sumus facturi," De decem ingeniis, in MS VAp 1083, fol.285r. This planned "tractatus" probably became chapter I.22 in Bernard's Lilium.

217. "Avicenna et Geraldus supra Viaticum dicentes, quod dolor est morbus...moventur aliqui ad credendum quod dolor sit morbus per se, licet supra Viaticum et alibi

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

multa dixerim de ista materia, tamen breviter aliqua dicam... Et quia disputavimus istam materiam supra Viaticum, ideo derelinquo," Lilium, II.10, in MS BM Harl. 3698, fol.26r. For Constantine's Viaticum, see TK, index, 1779.

218. "...qui autem causas passionis [sc.strabositatis] scire voluerit, habeat exposiciones nostras supra 4.de morbo," Lilium, III.6, in MS BM Harl. 3698, fol.40r and passim.

219. "Incipit tractatus bernhardi de gordonio qui dicitur arbor egritudinis. [Prol.] Grata laboranti labor omnis bravia confert... [text] Egritudo morbus seu infirmitas est mala qualitas... [explicit] A semita quorum non fugit usibus herens," in MS VAp 1083, 23 April 1458, fols.308v-319r (see TK 494). This treatise immediately follows Gordon's Liber pronosticorum in the above MS.

220. Hugucio was the author of an etymological dictionary, the Derivationes; see Sarton, Introduction, II, 472.

221. Giovanni Balbi of Genoa composed a dictionary, part 5 of his Catholicon (1285); see Sarton, Introduction, II, 1135.

Simon a Cordo of Genoa composed the Synonyma medicinae

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

or Clavis sanationis; see Sarton, Introduction, II, 1085.

222. For Ramon Lull's Arbor sciencie see Sarton, Introduction, II, 907.

223. "Incipiamus cum dei adiutorio de his que possunt...," see TK 723. However, see the suggestion that it is spurious, Sudhoff, "Schriftstellerei," p. 185.

224. "Ego fili carissime tuis acquiescens precibus...," see TK 487; also Modus medendi magistri Bernhardi de Gordonio extractus de modo Coffonis, Sudhoff, "Schriftstellerei," p. 182-183; and De modo medendi in egritudinibus pristinibus [sic] cum medicus nescit causam, incipit "Cum medicus ut plurimum a principio egritudinis...," in MS VAp 1083, fol.322r-v. (between Gordon's De sterilitate and De tyriaca); see TK 318.

225. Ascribed (with reservations) to Gordon: TK 246, 914; to Villanova: TK 246.

226. Ascribed to Gordon: Sudhoff, "Schriftstellerei," p. 181; to Villanova: TK 268.

227. Ascribed to Gordon: Tractatus Bernhardi de Gordonio de sterilitate et eius causa, in MS VAp 1083, 15th c., fols.320r-321v, Incipit "Quia causa sterilitatis accidit ideo ab ipsa inchoamus. Temperamentum

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

complexionis est causa fecunditatis..."; see TK 1214; also 1556; and, as anon., TK 522, item 12; ascribed to Villanova: Paul Diepgen, "Studien zu Arnald von Villanova," Archiv für Geschichte der Medizin, VI (1913), 388. However, Diepgen noted that there is a close parallel between this treatise and Bernard's Lilium, VII.1.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CHAPTER SIX

MAINSPRINGS OF BERNARD'S TEACHING: TRADITION, REASON, EXPERIENCE, NATURALISM

Bernard's writings, examined separately in chronological order in the preceding chapter, may also be considered together as an organic corpus in order to determine the mainsprings and characteristics of his scholarship. The most prominent feature appears to be the combination of traditional knowledge with his own personal views. This is illustrated by Bernard in his requirements for good teaching. He asserted that, above all, the master should combine "subtlety and ingenuity" in interpreting the sources and in selecting "the better ones" among them. Also, where the authorities (doctores) appeared to contradict each other, the master ought "to know how to reconcile them."[1] This already implied that even a so-called compilation would not be merely a matter of copying but would also require both the author's discretion in selecting the sources and his dialectical skill in settling real or seeming contradictions.[2] Moreover, Bernard also explic-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

itly emphasized the importance of the master's personal contribution when he remarked that "he who has learned nothing for himself, will not teach anything of importance." And he further elaborated this theme in his assertion that "those who say only what they have found in booklets are no scholars but are like rumormongers, because it is a poor method to use always what is found [elsewhere]."[3] At the same time, however, Bernard insisted that the master should remain humble when propounding his own views. This apparently was not always the case, since Bernard continued, "some, when lecturing, claim that they know everything and that others know nothing."[4]

Although master Bernard formulated these standards late in his career, namely in 1308, he appears to have lived by them quite consistently. In the first place, he displayed a broad knowledge of the available sources; secondly, he selected those authorities which he found most convincing, and he frequently endeavored to solve confusing contradictions; and, finally, he regularly added his own views, even when these might not agree with generally accepted traditions, although he humbly acknowledged the limits of his own knowledge.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The wide range of Bernard's medical authorities becomes evident in the following table of explicit references in his works.[5] To be sure, this table should not be read as the exact measure of Bernard's knowledge of the sources. On the one hand, of the authors whom he named, he may have known several only indirectly, from commentaries and compendia. This would seem to be the case for such "minor" authors as Alkindi and Serapion. Conversely, authors whom Bernard did not name were undoubtedly the source of several views which he presented as his own or, more accurately, as commonly known. Thus it can safely be assumed that his dependence upon such standard sources as Dioscorides' De materia medica or Joannitius' Isagoge in Artem parvam Galeni was far greater than the following table would indicate. Furthermore, not reflected in this table are such numerous but vague allusions as to "the ancient philosophers," or to "our masters."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	(1294) Regim.acut.	(1294) Comp.reg.	(1295) Pronostic.	(1299) Ingenio	(1303) Gradibus	(1303) Lilium	(1308) Conserv.vite	I.Flebot.	II.Urinis	III.Puls.	IV.Reg.san.	(?) Tyriaca	(?) Marasmo	TOTAL	%
Classical Greek Sources	5	4	7	30	19	317	111	109	7	149	16	16	790	64.8
Hippocrates	3	3	4	3	1	80	7	14	-	20	1	4	140	11.4
Aristotle	-	-	-	-	-	8	1	3	1	19	4	4	40	3.2
Dioscorides	-	-	-	-	-	3	-	-	-	-	1	-	4	
Galen	2	1	3	27	18	226	103	86	6	110	10	8	600	49.2
Judeo-Arab. & Salernitan	2	-	-	6	9	164	81	46	6	69	15	16	414	33.7
Alkindi	-	-	-	-	2	-	-	-	-	-	-	-	2	
Joannitius	-	-	-	-	-	1	-	-	-	-	-	-	1	
Serapion	-	-	-	-	-	2	-	-	-	-	-	-	2	
Damascenus	-	-	-	-	-	5	-	1	-	-	-	-	6	
Rasis	-	-	-	-	-	1	9	-	-	-	-	-	10	
Isaac	-	-	-	-	1	1	-	15	-	2	-	-	19	
Haly[Abbas]	-	-	-	1	2	4	5	1	2	4	-	-	19	
--[ibn Ridwan]	-	-	-	-	-	1	12	-	1	-	-	3	17	
Heben Mesue	-	-	-	-	1	3	-	2	-	-	-	-	6	
Avicenna	1	-	-	5	1	130	55	26	3	60	8	8	297	24.3
Constantinus	-	-	-	-	-	12	-	1	-	2	-	-	15	
Nicolaus	-	-	-	-	-	-	-	-	-	-	1	-	1	
Averroes	1	-	-	-	2	4	-	-	-	1	6	5	19	
Contemporary	-	-	-	-	2	5	-	8	2	-	-	-	17	1.4
Aegidius	-	-	-	-	-	-	-	7	1	-	-	-	8	
Giraldus	-	-	-	-	-	2	-	-	-	-	-	-	2	
Alveredus	-	-	-	-	-	-	-	-	1	-	-	-	1	
[Barthol. Anglicus]	-	-	-	-	-	-	-	1	-	-	-	-	1	
Albertus Mg.	-	-	-	-	-	2	-	-	-	-	-	-	2	
Anselmus Jan.	-	-	-	-	-	1	-	-	-	-	-	-	1	
Arnold Vill.	-	-	-	-	2	-	-	-	-	-	-	-	2	
TOTAL	7	4	7	36	30	486	192	163	15	218	31	32	1221	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The percentage column of the above table reveals the proportions between Bernard's explicit references. Two thirds are to Greek authors, especially Hippocrates and Galen, against one third Judeo-Arabic, such as Avicenna, Averroes, and Isaac Judeus, and Salernitan sources, namely Constantinus Africanus and Nicolas Salernitanus.[6] The scarcity of contemporary, that is to say thirteenth-century, authors among those identified by Bernard, is especially noteworthy. There are, nevertheless, several indications that Bernard regularly consulted not only general encyclopedias, especially the De proprietatibus rerum of Bartholomaeus Anglicus,[7] but also medical compendia, such as that of Gilbertus Anglicus,[8] even though he did not refer specifically to any of them. Such works were probably too commonly known to require identification. A similar explanation might apply to Bernard's vague allusion to an unnamed versificator as the author of mnemonic verses, such as those taken from the Regimen sanitatis Salernitanum[9] or from the Flos medicinae Scholae Salerni. A rhyme from the latter has indeed become famous because of Bernard's quotation,[10] and deserves to be cited here:

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

> The infectious diseases are contained in this verse: Acute fever, phtisis, epilepsy, scab, erysipelas, anthrax, lupus, and leprosy are known as contagious. [11]

Bernard appears to have drawn on the Salernitan tradition, and especially on the writings of its protagonist Constantinus Africanus, far more than the relatively small number of explicit citations (fifteen) would indicate.[12] For example, he did not mention specifically the most important work that went under the name of Constantinus, namely the Pantegni,[13] a free translation of the Liber regalis (al-Maleki) of Haly ibn Abbas (d.994). Moreover, it was probably also through the translation or, rather, adaptation by Constantinus that Bernard knew the treatise De urinis of Isaac Judeus.[14] As to the Judeo-Arabic sources themselves, perhaps the most noteworthy absentee among those authors identified by Bernard is Albucasis.[15] It seems surprising, furthermore, that Bernard only once named Joannicius (that is, Hunain ibn Ishaq), the author of the Isagoge or introduction to Galen's Ars parva, although he is found in the Articella, which was the established collection of medical textbooks, as well as in the Montpellier curricula of 1309 and 1340.[16] Moreover, Bernard mentioned Rasis relatively seldom. The latter, too, was listed in the 1309 syllabus

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

of the medical faculty, and his Liber nonus Almansoris was commented on at least twice in the next generation at Montpellier.[17] It would be tempting to infer that Montpellier scholars became familiar with Rasis only after 1300. But this does not seem likely, since his Ad Almansorem had already been translated around 1170 by Gerard of Cremona, and his Liber continens in 1279 by Moses Farragut.[18] Hence, although the works of Rasis were available, his popularity perhaps developed only slowly at Montpellier.

Among Arabic authors, the one to whom Bernard leaned and whose popularity evidently reached a peak in the early fourteenth century, was Avicenna.[19] His name accounts for nearly one fourth of the total number of Bernard's explicit references.[20] In many instances, however, Bernard cited Avicenna not so much for his own thought but as the interpreter of Galen, speaking "by the authority of Galen."[21] This subordination of the leading Arab sage to Greek or Galenic medicine, in addition to the fact that Bernard referred to Arabic authors only half as often as to classical Greek sources, suggests that his "Arabism" ought not to be overrated.

Bernard's thought, like the Montpellier tradition

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

itself, was firmly rooted in the Hippocratic-Galenic heritage. He called Hippocrates the "first master,"[22] and cited his Aphorismi, Pronostica, Regimen acutorum, Liber epidemiarum, and referred to the Oath or Testamentum.[23] Of these five writings in the Hippocratic corpus, the first three were included in the Articella as well as in both the Montpellier curriculum of 1309 and that of 1340. The first four, moreover, had been commented upon by Galen.[24] Bernard mentioned Galen almost as many times as all the other authorities combined. In view of the generally alleged development of Galenism into dogma in the later Middle Ages, Galen's pre-eminent position in Bernard's thought deserves careful attention, especially since that pre-eminence was entirely in keeping with contemporary trends at Montpellier. With the exception of the De methodo medendi ad Glauconem,[25] all the Galenic works listed in the Montpellier curricula were cited by Bernard, as may be seen from the table on the following page. Of interest, furthermore, is the fact that six of the Galenic writings, which are not found in either the Articella or the Montpellier curricula, are nonetheless mentioned, once each, by Bernard.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Galenic works cited explicitly by Bernard	Number of references		Works by Bernard on same topic	Found in the Articella	In Montp. curriculum 1309	1340
De ingenio sanitatis		110	1	-	2	1
In aphorismos Hippocr.		59	-	1	(1)	-
De morbo et accidente		51	(?)	1	2	1
De crisi [and]	(28)					
De criticis diebus	(6)	34	1	1	1	1
Regimen sanorum		31	1	1	-	1
De simplici medicina		25	-	-	1	1
Regimentum [or]	(11)					
Regimen acutorum	(8)	19	1	1	(1)	-
De complexionibus		17	-	1	1	1
De pronosticis		17	1	1	(1)	-
De interioribus		16	-	-	-	1
De differenciis febrium		13	(?)	1	-	1
Tegni		11	-	1	1	1
De iuvamentis membrorum		9	-	-	-	1
De virtutibus naturalibus		6	-	1	-	1
De malicia complexionis		3	-	-	1	1
De marasmode		1	1	-	-	-
De cibis		1	-	-	-	-
De locis affectis		1	-	-	-	-
De motibus		1	-	-	-	-
De tactu pulsus		1	-	-	-	-
De voce		1	-	-	-	-
De methodo medendi ad Glauconem		-	-	1	-	1
No work cited		173	-	-	-	1
T O T A L		600				

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The sovereign authority exercised by Galenic medicine is evident not only in the number of Bernard's references to works by Galen, but also in his reverent attitude towards "the prince of physicians."[26] Observing that Galen had considered study the shortest road to God,[27] and that his views agreed with those of the Church,[28] Bernard practically granted Galen the halo of a saint. Calling him "God's servant," he asserted that Galen possessed a tactile sense and an intelligence that surpassed those of ordinary humans.[29] Bernard even hinted that Galen's knowledge of medicine may have made him immune to disease, when he asserted that "Galen, before he knew the art of healing, fell gravely ill." Bernard commented appreciatively that Galen's eventual "recovery was a great comfort to the whole world."[30]

As could be expected, Galen's views prevailed in Bernard's works over the opinions of lesser lights. For example, although Bernard admitted that "venerable Egidius did quite well in his treatment" of the subject of uroscopy, he nonetheless appealed to Galenic views when "laying to rest" several theories of the same Egidius (Gilles de Corbeil).[31] Bernard also invoked Galen's

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

authority when he rejected an opinion of Serapion[32] and refuted some statements by "Viaticus," probably Constantinus Africanus, who was "judging on the basis of appearance."[33] Even when Galen appeared to contradict a major author, such as Aristotle, Bernard favored Galen. However, he usually attempted to reconcile their viewpoints, often resorting to sophistry. For example, whereas Aristotle located the sensus communis in the heart, Bernard followed Galen in assigning it to the brain. He explained the discrepancy as due to a difference in emphasis between the two authors. Bernard appeared uncertain, however, of the effectiveness of his conciliatory effort when he added, "and if they can be friends through this explanation, I am satisfied."[34] With still more subtle dialectic Bernard solved apparent disagreements between Galen and Avicenna.[35] In one instance he noted that, while Galen accepted only three simple fevers, Avicenna listed four and "took strong exception (multum scandalizatur) to the words of Galen." After reconciling this difference by means of the scholastic distinctions between "preceding" and "joint" causes and between "becoming" and "being," Bernard mused that "it was, nevertheless, strange that Galen made such statements."[36]

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

When Galen "seems to contradict himself," Bernard either went to great lengths to straighten out the discrepancy,[37] or expressed his bewilderment over it. Thus, failing to solve an apparent inconsistency in Galen's discussion of eye abscesses, Bernard candidly admitted, "what ought to be said about this, I do not see, except that it is under some cloud, if the letter is true as it stands." He then added, however, the reassuring comment that it seemed to be an inconsequential "argument over words."[38] When one of Bernard's own explanations seemed surprising, he hastened to profess that "nothing of what I say here is contrary to the sayings of Galen."[39]

However, in spite of his avowed respect for Galen's authority, which he acknowledged to be "greater than all my perspicacity," and in spite of his endeavors to reconcile seeming contradictions by means of semantics ("modus loquendi"), Bernard did not entirely suspend or surrender his own independent judgment. For example, he described how he would administer hot baths to athletes and wrestlers, even though that would run counter to Galen's statements, "if taken literally."[40] Furthermore, Bernard discredited the allegation that Galen had invented the almost miraculous antidote, theriac,[41] and he criticized the lack of synthesis as a basic weakness

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

in Galen's method.[42] On one occasion Bernard deferentially intejected, "salvo honore Galeni," when disagreeing with the latter,[43] but elsewhere he firmly asserted his own opinion as more reasonable than that of Galen.[44]

To one prescription of Galen, namely that phlebotomy should be applied until the patient fainted, Bernard objected so insistently that he repeated his objection in three of his works, each time giving a different argument. In the Lilium medicine he stated, "it seems to me that it is safer to phlebotomize several times until the [harmful] matter is exhausted, rather than the patient: for I prefer that the illness be somewhat prolonged rather than that a death be attributed to me."[45] In the treatise De urinis, to the claim that his procedure was safer, Bernard added the argument that it was also more current in his own time.[46] In his Regimen sanitatis, finally, he declared that "many things, which were allowed to Galen, are not allowed to us, because Galen knew better and more certainly the strength [of the patient]."[47] With this cogent argument Bernard's Galenism appears to have come full circle. While Galen's extraordinary stature inspired Bernard with reverence, as has been indicated above, it was for him also an important reason why ordinary men could not apply literally

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and absolutely every Galenic dictum. It is clear, therefore, that Galenism, however influential, was not truly a dogma for Bernard.[48]

The limits, which Bernard imposed upon his assent to Galen's views, applied a fortiori to his acceptance of other sources. Although authority and tradition did carry considerable weight, two additional criteria were needed to establish a fact beyond doubt. One such fact was the force of habit which, as Bernard stated, "is manifest not only by way of experience but also in the authorities and by reason."[49] Reason and experience, therefore, were the touchstones by which Bernard criticized or emended several authors.

In his most sweeping denunciation on the basis of reason, Bernard averred that in case of pleurisy "no strong medicine ought to be given, even though the ancients say so and some moderns boast that they follow that course. But, foregoing disputations, it yet appears not to be reasonable."[50] By "reasonable," Bernard obviously understood that which is verified either by deduction or by induction. He used deductive reasoning to refute Avicenna and "some of his followers," who had argued that "phlebotomy drains the good blood and leaves

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the bad blood behind." Bernard replied that "this proposition is worthless because Nature retains the good blood which she needs, and lets the bad blood go."[51] Another a priori argument he directed against the Viaticum of Constantinus Africanus, where it was prescribed that, in the treatment of tremors, the administration of oils and laxatives ought to follow the administration of baths. Bernard considered this "against reason, because universal remedies [namely, baths] should precede the particular ones [namely oils and laxatives]."[52]

Deduction and induction were welded into one blunt rebuke of Avicenna's suggestion that it was good to get drunk once a month as a complete purge. Bernard protested that "there are many other ways of purging," and that Avicenna's method was "ignominious and not even entirely safe... Therefore, let it be completely banned from the realm of our speculation."[53] Reiterating elsewhere his warning that "no Catholic should knowingly get drunk," he added that "this method of purging the body is like a shipwreck, and it is therefore totally against God and reason."[54] Also on the subject of alcoholic beverages Bernard introduced a very pertinent conclusion of inductive reasoning, namely the argument that sometimes

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

traditional statements did not apply because their authors had belonged to a different era or culture.[55] Thus, Galen and Avicenna had opposed the drinking of wine by children. Bernard found their view contrary to "common usage throughout the whole world, so far as we know, and yet children are not being harmed by such taking of wine."[56] To Galen he replied specifically that "in antiquity wine was not drunk as commonly as today: that is evident since Galen did not know the Marnau wine of Cyprus or the wine from Vernazza, for he did not mention them although he mentions so many things at great length."[57] As for Avicenna, on the other hand, "in his time no one drank wine, in accordance with his law --they [namely, the Muslims] still do not drink--, and therefore he could not judge with enough certainty" on the effects of wine.[58] Incidentally, this seems to be one inconsistency which Bernard failed to notice, namely between Avicenna's Islamic prohibition and his abovementioned prescription of monthly inebriation. In any event, Avicenna was once more the target of censure on rational, or rather moralistic grounds, when the "many illicit and indecent things," which he had told about coition, were expressly omitted

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

by Bernard "because they befoul the air."[59]

In addition to reason, Bernard used another criterion of truth, namely experience, to supplement or to contradict his sources.[60] Thus, he frequently supplemented traditional etiology by giving causes which "the authors do not mention, because this [cause] occurs but rarely."[61] Furthermore, Bernard recommended medications which "the authors whom we have seen do not mention, but experience truly proves that they are most effective against poisoning."[62] To the traditional cures for a widespread intestinal affection, namely worms, he added one "that has now become a new and common practice"[63]; and to the cures for dropsy, he added one which he had tried (sum expertus).[64]

Conversely, Bernard also questioned the diagnoses, prognostications, and prescriptions of his sources on the basis of experience. Although he rarely doubted traditional prognostications, he nonetheless found little comfort in the prognosis of Hippocrates and Galen that apoplexy could be cured: "I have seen many apoplectics and, in truth, I have never seen anyone escape; therefore, deliver us, Lord, from sudden and eternal death."[65] With regard to diagnostics, Bernard seemed ready to accept traditional views only when they were borne out by pers-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

onal experience. For example, he initially rejected as a fable the principle of uroscopy that the four layers or 'regions' in stagnant urine indicate specific groups of diseases. He confessed, however, that in the end he became "convinced because of experience (propter experienciam)," remembering "the word of Avicenna that experience (experimentum) wins over reason."[66] At the same time, Bernard realized the fallibility of experience, since he admitted that "the physician is often misled," for example in diagnosing colic as kidney trouble.[67]

Nevertheless, when his personal experience seemed in direct conflict with the diagnostics of all the authors, including Galen and Avicenna, Bernard was in a quandary. Whereas he had seen a leper in the most advanced deterioration of the disease but without significant marks in the face, all authors held that the symptoms of leprosy would show first in the face. Could, then, anyone be completely leprous without any facial symptoms? Perplexed, Bernard admitted, "about this question, I do not know, God knows; but let me relate here without prejudice what happened to me."[68] He then reported his experience in great detail because he felt that "nowadays lepers

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

are diagnosed very poorly."[69] Forced to "conjecture in approximation of the truth" that the patient must have had a kind of scab rather than real leprosy, Bernard concluded that, "although I was of one opinion, now after working diligently in this profession I am of another opinion, and I would not judge anyone leprous; however, God knows the truth, I do not know."[70]

If Bernard wavered when authority and experience disagreed on the subjects of prognostication or diagnostics, he seemed far more confident when it came to therapeutics. Thus, presumably speaking from personal experience, he asserted that phlebotomy was good for all kinds of scab, "even though the authors say the contrary."[71] He also objected to Avicenna's preference for medicine above surgery in case of dropsy: "I have never seen anyone completely cured by this method without eventually dying. I believe that it would be better to cauterize five or six times below the navel."[72] He even seemed to challenge an entire tradition when he warned against the use of narcotics for ringing in the ears, "whatever the authors may say" and "whatever may have been said or will still be said in the future."[73] Bernard frequently cautioned that narcotics should be "avoided

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

as much as possible,"[74] and should be applied only in "great necessity, as in desperation."[75] Since he knew the lethal qualities of opiates,[76] he was actually observing the pledge of the Hippocratic oath, "I will give no deadly medicine to any one if asked, nor suggest any such counsel."[77]

Bernard emphasized the paramount importance of experience not only in selecting one form of therapy, such as phlebotomy, and rejecting another, such as the use of narcotics, but also in determining the very effectiveness of a particular drug. For example he noted that for headaches most authors recommended balsam oil, whereas Galen allegedly "had not found it helpful"; hence he, Bernard himself, would advise that "it be left to verification by experience."[78] In fact, all prescriptions, "unless tested by experience, are speeches of orators who offer fancy propositions that have nothing to do with science."[79] Bernard suggested that both the specific property of a drug and its intensity had to be tested by experience, <u>experimento</u>. The word <u>experimentum</u> might, in this case, even be translated as "experiment," if this term is interpreted somewhat more broadly than in modern scientific usage.[80] Furthermore, Bernard

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

asserted that "any consideration [with regard to prescriptions], no matter how reasonable, has no value unless it is proven by experience (nisi experimento comprobetur)," which will determine "quantity as well as quality."[81] However, "the light of reason" should also guide the experimentator --Bernard's use of this term for the physician is worth noting--.[82] Therefore, Bernard laid down the following modus operandi: "if you do not see any effect of the medication and, in the process, you know that you did not take the right course, do not persist in your error but correct yourself."[83] This was essential, moreover, because the trial-and-error method could endanger the patient's life. Bernard further suggested that the physician make use of a placebo, "which can neither help nor hurt," while he zealously "bent over the books day and night" to supplement his experience with more knowledge.[84] Indeed, Bernard urged: experience could turn an hypothesis into firm doctrine, since "in matters, which have been confirmed by experience, no change should be made."[85]

On the other hand, Bernard tended to be sceptical when widely used medical methods lacked both rational grounds and experiential verification. He thus doubted

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

many of the tests used for determining male fertility. And while he apparently accepted Aristotle's view that unhealthy sperm floats on water,[86] he observed that "many other tests (experimenta) are given by the authors, but I do not attach any faith to them, because they seem to be quack tests (empirica)."[87] That Bernard had little regard for empirica, is suggested in several instances. At the end of his prescriptions for quinsy, for example, he added, "it is also said that if a viper be strangled with a thread and be hung around the neck, it is very helpful." But, Bernard asserted, "I have not tried these empirica, whereas I have applied the other mentioned remedies frequently."[88] In fact, Bernard went on to call upon the physician to "operate according to the art, that is according to the rule of Galen, Hippocrates, and the other sages." He warned that by their rule were "condemned all arts of soothsaying" and "the suspending of herbs around the neck," as well as "all quackeries (empirica), sorceries, and the casting of spells."[89]

Despite these avowals of disbelief in the miraculous or magical cures, it would, nevertheless, be inaccurate to infer that Bernard consistently dismissed all quack remedies. For example, in cases of fistula

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and difficult childbirth he recommended the suspension around the neck of an herb "collected with the Lord's Prayer."[90] And his most flagrant lapse into quackery occurred in the Lilium's chapter on epilepsy, when he prescribed as "proven" (probatum) a truly magical remedy in which, appropriately enough, the Magi figured prominently. In this instance he gave assurance that the patient would be cured by hearing, spoken directly into his ear, these verses: "Gaspar bears the myrrh, Melchior the frankincense, Balthasar the gold; who bears with him the names of these three kings is, God willing, delivered from falling sickness."[91] Furthermore, Bernard added, "it is alleged (dicitur)" that the patient would be helped by wearing around his neck either the above verse, or an elaborately prepared Gospel quotation, or even some mistletoe.[92] Perhaps, however, a note of scepticism may be detected when Bernard consistently attached the words "ut dicitur" or according to hearsay, to the magical cures, rather than recommending them as tried by his own experience.[93] Actually, frustration and despair in his own experience seemed to account for his listing of the empirica. Indeed Bernard confessed humbly "that I have had under my care

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

many men ... and women, with almost every form of epilepsy, and still I have never seen any one cured either by myself or some other... Yet I was most diligent in every detail and [I must admit that] the patients cooperated. I do not know the reason, only God knows."[94] The alleged effectiveness of the cures was, he therefore admitted, contradicted by his personal experience. This point Bernard avowedly emphasized so that the physician would not degrade himself "by vain and false promises to cure epilepsy. For almost every case of epilepsy is cured only with great difficulty, granted indeed that it can be cured at all."[95]

Besides the individual results of experience and reason, Bernard also applied a combination of both, in what might perhaps be defined as his use of plain common sense, to criticize some authors. He disagreed, for example, with Heben Mesue, who had recommended the use of repercussiva, medicines that reduce swelling, in case of pleurisy. Bernard argued that such medicines would be helpful only at the very onset of the disease. Hence this would be true, "granted only that someone were then present, and that he would have been given by God the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

great favor to see the beginning coming on, and have carried in his hand or bag the repercussiva." But, Bernard continued, "it is not clear when all these conditions could coincide." Therefore, he concluded mockingly, "I am very surprised that the good Heben Mesue was sleeping."[96]

Furthermore, Bernard not only resorted to common sense, but occasionally also to common usage as a basis for rejecting the opinion of an author.[97] However, common usage was more often the target than the criterion of Bernard's criticism. He condemned the practice of "those who prevent the growth of the pubic hair of girls with narcotics and cautery," because that hair was needed to drain vapors.[98] More urgent was his warning for those who "have their uvula incised in order to sing better, because beyond doubt they will never afterwards give a beautiful performance with their vocal instrument."[99] He disapproved, moreover, of such common practices as heavy breakfasts and daytime naps by a group of sedentary persons who could perhaps not be considered 'common', namely "wealthy burghers, prelates, scholars (studiosi), and the like."[100] The common people, on the other hand, seemed to be ignorant about baths, since

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

they administered medicinal baths for paralysis before washing the body. In this, Bernard asserted, "the vulgar are mistaken, and thus the disease becomes worse."[101]

If popular practices often resulted in harm to the patient, also "popular opinion" (opinio vulgaris) could severely handicap the physician's intervention. Already Hippocrates had warned that "the common people are most incompetent, of themselves, to form a judgment how [acute] diseases should be treated."[102] In the same vein, Bernard often expressed his impatience with the poor judgment of the common people. He lashed out at the "importunity of the bystanders" who, believing that his therapy was "malicious and cruel," did not allow him to treat lethargic patients. He claimed that he had "frequently accused the bystanders of homicide,"[103] even though he admitted that his drastic 'shock therapy' was merciless and violent.[104] Bernard was also alarmed to see how "the vulgar erroneously believe" that coition not only helps but even cures leprosy; and he complained that he was "shocked to see people err all the time in the phlebotomy of lepers."[105]

Bernard also turned his attention to another popular fallacy which, he suggested, might interfere

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

with the physician's practice. This was the superstition that held that a patient should not be bled or phlebotomized on certain days or times. Bernard refuted those who "claim to have some secret pamphlets (libellos apocrifos)" proscribing venesection on certain calendar days. He scoffed at those views and asserted that "to observe such things is pure ignorance, eccentricity, and malice."[106] He also labelled as "erroneous and bizarre" the widespread belief that the physician should not phlebotomize on Egyptian days, that is on the so-called anniversaries of the days on which God had sent the plagues upon Egypt.[107] However, Bernard conceded that the observance of such days might be necessitated by "the poor judgment of the vulgar," because otherwise, "if anything adverse should happen, it would all be blamed on the physician."[108]

In his treatment of phlebotomy, furthermore, Bernard gave the impression that his many years of experience gradually made him more sceptical towards astrology and its popular applications. For example, in his earlier Liber pronosticorum (1295), he declared that "no one should perform phlebotomy when the moon rises in Gemini."[109] In his treatise De flebotomia, composed

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

thirteen years later (1308), he repeated the same rule, on which "the wiser astronomers have agreed." By then, however, Bernard's own personal experience had successfully defied that rule:

> It happened to me that I had noted the hour when the moon would be exactly in Gemini. Then, I wanted to phlebotomize the patient on that very hour, as I had forgotten [about the moon]. When everything was prepared, I remembered, but I did not want to send the patient away. I performed the phlebotomy, and it never went better for me. [110]

Bernard also gave another indication of his growing scepticism towards astrology when he discussed the preparation of compound medicines. In his Liber pronosticorum he had advised that "the physician should make all his preparations under definite [astrological] influences."[111] However, in the Lilium medicine, written some eight years later (1303), after first suggesting that a remedy for gray hair "might perhaps be better if prepared under a favorable planet," Bernard dismissed that suggestion "because it does not directly concern the physician."[112]

Nevertheless, with all his expressed doubts and scepticism, Bernard still appeared somewhat hesitant in discrediting popular beliefs. This hesitation becomes

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

evident in the chapter where, at the hand of personal experience, he challenged the belief in times unfavorable for phlebotomy: he concluded the same chapter with the remark, "on something like this I dare not make absolute assertions."[113] In this regard, the late Professor Thorndike observed that "Bernard defies astrological medicine successfully in personal practice but he continues to preach it in his writings."[114] Indeed, while rejecting some popular 'superstitions' of medical astrology, Bernard continued to adhere to the traditional 'belief' in the influence of the stars on terrestrial life. Probably inspired by a Neo-Platonic source, he asserted that there are three "custodians" of human life, namely "the spheres and stars, the divine intelligences, and God." Of these three, he held that "God guards directly the human will, the angels the intellect, and the heavenly bodies the body."[115] Furthermore, Bernard followed the "Egyptian sages" in believing that the stars influence, from the moment of conception, not only man's destiny,[116] but even his very chance to be born alive.[117] He was, however, careful not to risk the charge of determinism, and he pointed out that "the spheres do not influence with necessity, but in the way of inclin-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ation and disposition, so that someone, who is inclined by the stars towards one thing, will never be equally disposed towards its opposite."[118] With regard to the astrological prognostication of diseases, Bernard cited Galen in support of his view that there are two foundations or "roots" in every development. The radix superior, whose course is one and orderly, "like the movements of the spheres," influences the radix inferior, whose course is erratic and variable, like disease itself.[119] Specifically, the course of chronic diseases, he held, is controlled by the sun, that of acute diseases by the moon.[120]

In regard to his belief in the influence of the moon and stars, Bernard similarly leaned towards some traditional beliefs that pertained more to magic than to astrology; but he also suggested a natural basis for that influence. He accepted, for example, on the authority of Avicenna and the "experienced" (experti), the theory that concentrated moonbeams had mysterious powers.[121] He offered, however, a natural explanation, namely that of the "excessive humidity" of moonlight.[122] (It may strike us, living in the age of moonlandings, as odd that the moon's 'complexion' was long thought to be cold

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and humid). Bernard also took for granted another popular belief, namely that comets and falling stars announced future pestilences and even wars. But again, he made the suggestion of a natural process, namely the corruption of water and air, and "possibly, a multiplication of bile, which leads to wrath and violence."[123]

Moreover, Bernard adopted other traditional lore, especially on matters which he had apparently been unable to verify for himself, such as the powers of the basilisk, "which kills by its mere glance,"[124] or the cure of scrofula, "which the kings were wont to heal by their mere touch."[125] However, he discredited several folk tales that were intended to explain mysterious diseases in a supernatural way. Thus, to the popular belief that a patient in coma (congelacio) "is in a trance and is speaking with God and his angels," Bernard replied pointedly that "the kingdom of heaven suffers violence, and the violent take it by force."[126] Usually, his answers were less enigmatic, and he substituted simple natural causes for the supernatural ones of popular explanations. This is seen in the case of wolfish hunger, which the "vulgar" attributed to stepping on an herb that had the magical property of increasing one's appetite;

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

but the true cause, according to Bernard, was simply "inanition" or bodily exhaustion.[127] In another instance, Bernard dismissed the popular belief that depressive mania was caused by a demon. He cited Avicenna's remark that he who teaches medicine (physicam) "ought not to concern himself with this" supernatural explanation, since the immediate cause of mania is always natural, namely melancholy or 'black bile'.[128]

On another medical mystery, namely the nightmare, Bernard critically weighed against each other three lines of traditional explanation. "The opinion of the theologians," he held, was that nightmares are caused by the demon called incubus. On the other hand, "the vulgar say that it is some old woman treading and squeezing the body," and that belief to Bernard was "nonsense" (nichil). The etiology of the physicians, he argued, was the best: "medici melius opinantur." In line with that etiology, he then suggested sudden cold as a possible external cause, and corrupted vapors in the brain as an internal cause: both natural explanations.[129] Natural, too, and firmly in keeping with the Hippocratic tradition,[130] was Bernard's etiology of epilepsy. As noted earlier, he resorted to magical cures when he

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

found all the natural treatments of falling sickness to be frustratingly ineffective; for its etiology, however, he did not rely on supernatural causes. Whereas many explained the 'Sacred Disease' by demoniac possession, Bernard attributed it to a blockage in the brain.[131] He thus exemplified the "remarkable feature of medieval medicine to have kept alive the explanation of epilepsy as a natural disease caused by natural factors."[132]

In fact, Nature provided not only the most important basis of Bernard's explanations, but also the core of his medical thought and, to some extent, the foundation of his ethics. He even occasionally evinced a strangely familiar and 'modern' tone in his concern with the natural. This is illustrated in his description of 'air pollution' in big cities --though his advice, namely to use fans and aromatics, would hardly solve our problems--.[133] Another instance of Bernard's relevant concern with the natural may be noted when he asserted, citing Galen, that "only that food, which is without any additives, is good for the human body."[134] More pertinent to this study is Bernard's conviction that, because "Nature is farsighted and her farsightedness has no end,"[135] the art of medicine ought to emulate

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Nature, "ars est imitatrix nature."[136] Using a key phrase of Hippocratic-Galenic thought,[137] Bernard called the physician "the servant of Nature" (minister nature), whose task it is to "stimulate Nature," rather than to suppress it.[138] Therefore, "phlebotomy and drugs should be used with great reserve, lest they weaken the natural strength (virtus), because it is the virtus that cures diseases."[139] Moreover, "a better physician is he who is able or who knows how to cure disease with food and drink" rather than with pharmacy.[140]

Bernard stated, furthermore, that the needs of the patient "should be considered by the physician according to the nature of the disease and to the other particulars." Therefore, the physician's first and most essential qualification was that he be learned (sciens) and that he know not only how "to interpret the sayings of Hippocrates and Galen," but also how "to apply universal principles to particular circumstances."[141] Secondly, Bernard required that the physician "be diligent" in visiting the patient up to three times daily and in taking care of everything, so that the patient would be "cooperative and the nurses careful."[142]

Bernard then went on to explain the relation of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

the physician to the patient. To make the patient cooperative (obediens) and confident, it was especially important that the physician give an accurate prognosis. Thereby, too, the physician would anticipate future dangers, escape "infamy and dishonor,"[143] and not "degrade himself by vain and false promises."[144] These ideas on prognostication and honor, as well as the related idea that the physician should avoid the treatment of hopeless cases, were thoroughly Hippocratic.[145] The latter view, however, Bernard overstated by advising that, in hopeless cases, the physician should "flee immediately without greeting the host."[146] Paradoxically, Bernard was also concerned with prolonging the life of his patients, even when they could not be cured or were approaching death.[147]

The issue of life and death has been at the heart of the most difficult ethical problems which physicians of all ages have faced. Bernard's awareness of these problems is evident in several scattered instances. Thus, he prescribed that the physician should continue giving medication to the apoplectic patient "until he revives or dies, so that it can not be said that he died from lack of medication"; he then explained how to test whether the patient was still alive; and he repeated

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Avicenna's advice that such patients should not be buried for three days, although "few or none of them have friends and therefore a great many are buried alive."[148] On another medical problem, the use of narcotics, Bernard applied the principle of the Hippocratic oath, as has been noted above.[149] He also echoed the Hippocratic oath, in a seemingly Christianized version, on the subject of abortion. After listing several abortifacients, he added this caveat, "under pain of eternal damnation, let no one recommend a deadly potion or an abortifacient."[150] On the matter of sex, Bernard repeated the Christian principle that "coition is not allowed unless it is for the sake of offspring,"[151] although he apparently allowed for contraception to avoid the risk of leprous contagion through sexual intercourse.[152]

Bernard, surprisingly enough, and unlike such contemporaries as Arnold of Villanova and Henri de Mondeville, apparently did not discuss the physician's bedside manners, his fees, or other particular and practical aspects of medical deontology.[153] He seemed, indeed, less interested in 'medical etiquette' than in the basic principles of general ethics,[154] when he

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

declared that "the physician should be a great moralist." In reply to those philosophers who claimed that the study of ethics was their province, Bernard affirmed that it pertained to the physician as well, not only because man's morals affect his health,[155] but also because the physician is a man of the world.[156]

It is, perhaps, only normal that Bernard found in psychosomatics, that is the interaction between mind and body, a justification for his concern with ethics, or that he often applied psychosomatics in explaining and treating diseases.[157] What deserves to be emphasized, however, is the fact that, though apparently a deeply pious man, he often based his ethical thinking on psychosomatics and natural reasons rather than on authority or pious considerations.[158] Thus, as indicated above, he gave no ascetic but only medical arguments against drunkenness, although he concluded that it was "entirely against God and reason."[159] Another example, perhaps somewhat trivial but nonetheless indicative of Bernard's 'naturalism', is found in his explanation of monastic silence. He thought, namely, that monks did not talk at table in order to concentrate better on their food.[160] Moreover, in Bernard's

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ethics the emphasis on psychosomatics logically resulted in a Stoic viewpoint. He stated that, "because the body follows the mind in its actions just as the mind follows the body in its sufferings (passionibus)," man should be moderate in everything, avoiding anger and fear, sadness and envy; he should also rejoice moderately, unless he was weight conscious because, according to Galen and Avicenna, "moderate joy is fattening."[161] It may be pointed out, finally, that Bernard did not mention either love or piety as the sovereign virtue; instead he expressed the view that justice, which in Aristotelian thought regulated the universe, also governed all the other virtues.[162]

However, although his ethics were to a large extent 'naturalistic', inspired by pagan authors, and solidly based on Hippocratic-Galenic 'naturalism',[163] we should not infer that Bernard was a naturalist in the theological sense. In fact, he explicitly stressed Saint Augustine's stand against the Pelagian heresy, in which the "ancient philosophers had wrongly believed" that man can "attain beatitude by his natural powers (ex principiis naturalibus)."[164] Hence, Bernard interwove pagan and Christian viewpoints, and he illuminated

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

them with quotations from Aristotle and the Bible, from Seneca and Saint Augustine, and from Suetonius and Saint Jerome.[165] Because of this combination of classical and theological authorities,[166] as well as because of the harmony between his solid faith in Nature and his pious belief in things beyond Nature, Bernard may justly be considered a 'humanist' in his own right. He deserved that designation especially for his genuine interest in the whole human being, both mind and body.

The 'humane' character of Bernard, together with his awareness of nature, is also illustrated by the manner in which he described medical phenomena, and related them to everyday observations. In an interesting essay in 'phenomenology' he argued that the "spirit of sight (spiritus visibilis)" goes from one eye into the other, and that this "is apparent since balistarii, when they want to shoot straight, close one eye so that in the other their sight will be intensified."[167] To this argument, which was not entirely original,[168] Bernard added a second one of his own, namely that "when one eye is closed, the nostril on the side of the open eye can be seen, while it cannot be seen if both eyes are open."[169]

Bernard's acute senses of sight, touch, smell and,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

especially, hearing become evident in the vivid description of his observations. For example, he depicted the various hues of ringing in the ears (tinnitus, sibilus), which

> appears to the patient sometimes like the vibrations of bells after they are rung,...sometimes like a heavy rain, sometimes like the sound of a mill, sometimes like the crashing of trees, and sometimes like fermenting must in a jar of young wines. [170]

In another instance of sound description Bernard indicated how dropsy could be diagnosed, namely "when the belly is shaken, it sounds like a skin bag half filled with water, as if it sounded coac, coac."[171] With regard to Bernard's sense of hearing, it may also be pointed out that he often enlivened his writings with pertinent verses, or underscored his teaching with mnemonic rhymes.[172]

Because of his reliance upon direct sensory perception, and because of the poetic touch of his descriptions, Bernard may appear naive to the 'scientific' reader of a computer age. Those features, however, should not obscure the fact that Bernard was, in the context of his own time, a man of science. As has been indicated above, he used his sources selectively and critically, he applied both reason and experience, and he consistently emphasized natural explanations. It was not a vain boast when he called himself a "sedulous inquirer," especially since

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

he acknowledged the limits of his knowledge.[173] But, rather than to be discouraged by these limits, he saw in them the promise of a never ending process of discovery. He asserted that the art of medicine, in so far as it could be mastered in a lifetime, "is but a finite summary of the infinite."[174]

The same thought may furnish an encouraging conclusion to this chapter. Much more could be said about Bernard de Gordon on the basis of his works, which yield new insights in every reading. If, however, time inexorably forces a halt to the present study, we may comfort ourselves with the thought that, like the art of medicine, also the historian's art "est finitum infinitatis compendium."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NOTES TO CHAPTER SIX

1. "Prima condicio que requiritur ad hoc quod magister sit aptus ad docendum quod sit subtilis et ingeniosus ut sciat interpretari scripturas, et ubi videntur contrarietates doctorum quod sciat ad concordiam reducere et ex scripturis sciat eligere meliora," De conservacione, IV.Regimen sanitatis, VI, in MS VAp 1174, fol.58v.
2. However, Bernard directed his reconciling efforts exclusively to the contradictions within the medical tradition, while accepting such conflicts of opinion as those between physicians and philosophers (see chapter V, p. 290 above). It is worth observing that he thereby differred from his contemporary at Padua, the "Conciliator" Peter of Abano (ca.1250-1316), whom he might have met at Montpellier around 1306. For Peter's possible passing through Montpellier, see S.Ferrari, "Per la biografia e per gli scritti di Pietro d'Abano," Memorie delle R.Accademia dei Lincei, Classe di scienze morali, storiche e filologiche, ser.5, vol.XV (1918), 649.
3. "Nil enim magnificum docebit qui a se nichil didicit, et hoc est quod scribitur libro sapiencie illum eruditorem elige quem magis invenis in suis quam in alienis. Qui enim non dicunt nisi quod in cartabellis inveniunt

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

non sunt doctores sed sunt sicut illi qui narrant rumores, quoniam miserum ingenium est semper inventis uti," De conservacione, IV.Regimen sanitatis, VI, in MS VAp 1174, fol.58v.

4. "Tercia condicio quod in docendo [magister] sit humilis non superbus. Aliqui enim cum legunt dicunt se omnia scire et alios ignorare, et ita iactant se ipsos laudantes et alios vituperantes," ibid.
5. Not included in this table are most of the authorities pertaining to the liberal arts, for which see chapter IV above. Explicit references to those authorities (including the Bible) number slightly over one hundred.
6. Ideally, this tabulation should be collated with the explicit references of several other authors, contemporary and non-contemporary, of Montpellier and elsewhere. At this time it is possible only to give an idea for two authors whose references have been conveniently tabulated by their editor, E.Nicaise. Thus, Henri de Mondeville in his Chirurgie, composed in 1308 (ed. Nicaise, Paris, 1893), cited 58 authors 1308 times: 42% classical (33% Galen), 33.5% Judeo-Arabic (23.6% Avicenna, 5% Rasis), and 24.5% contemporary. And Guy de Chauliac in his Magna Chirurgia, written in 1365 (ed.Nicaise, Paris, 1890), cited 100 authors 3300 times: 33.8% classical (27% Galen), 42.5% Judeo-Arabic

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

(20% Avicenna, 5% Rasis), and 23.7% contemporary.

See also the tabulation for John of Gaddesden's Rosa medicine above, chapter V, n.122.

7. See above, chapter IV, p.199 and nn. 50-52.

8. Thus, for example, Bernard's discussion of leprosy (Lilium medicine, II.25) is strikingly similar to that of Gilbertus Anglicus (Compendium medicine, II). It is, of course, quite possible that both used the same source.

9. For example, "De regimine acute sanitatis versificator aliqua dixit sic: Si vis incolumem, si vis te reddere sanum, curas tolle graves, irasci crede profanum. Parce mero, cenare cave, nec sit tibi vanum pergere post epulas, somnum fuge meridianum. Non teneat minctum nec cogat fortiter anum," Lilium, V.8, in MS BM Harl.3698, fol.66v. See Regimen sanitatis Salernitanum, ed.by Pascal Parente (New York, 1967), p.43. As an illustration of historical continuity it may be pointed out that there exists a still popular Flemish rhyme that is a translation of the abovecited Salernitan rule of health.

Another example: "versificator advertens ad consuetudinem...dixit: Cena brevis vel cena levis fit raro molesta. Magna nocet, medicina docet, res est manifesta," Lilium, V.8, fol.66r. Regimen Sanitatis Salernitanum, ed.Parente, p.44. See also n.172 below.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

10. The *incipit* of that quotation is listed in TK, 550. See also Sarton, *Introduction*, III,874 and Garrison, *History of Medicine*, p.186. A brief analysis with references is found in J.Pagel and K.Sudhoff, *Kurzes Handbuch der Geschichte der Medizin*, 4th ed.(Berlin, 1922), pp.206-207.

11. "Morbi autem infectivi in hiis versibus continentur: Febris acuta, phtisis, pedicon, scabies, sacer ignis, auxungia [antrax], lippa [lupa], lepra nobis contagia prestant," *Lilium*, III.3, in MS BM Harl.3698, fol.38v. The variants [between brackets] are found *ibid.*, I.22, fol.16r, with reference to leprosy, where it appears that Bernard equated contagious and hereditary diseases. Interestingly, the printed versions have substituted *pediculi* (lice) for *pedicon* (epilepsy).

    The verse is found in the *Flos medicinae Scholae Salerni*, vv.2483-2485, ed.by Salvatore Renzi in the *Collectio Salernitana*, V(Naples, 1859), 101. However, the *Flos* adds "frenesis," so that we may doubt Garrison's assertion that the number eight was traditional. See, moreover, Karl Sudhoff, "Fünf ansteckende Krankheiten," *Mitteilungen zur Geschichte der Medizin und der Naturwissenschafte*, XIV(1915), 405-406.

12. It should be pointed out that Bernard actually named Constantinus only seven times. The other half of the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

citations refer to the Viaticum (see chapter V above, n.217) and to an author Bernard called "Viaticus." Thus, for example, "dicebat Viaticus qui primum vinum de vite mollitus est inter sapientissimos debet reputari," Lilium, II.20, in MS BM Harl.3698, fol.31v. Also ibid., fols.31r,36v,48v, and 68v. It is difficult to ascertain whom Bernard meant by "Viaticus": Isaac Judeus (fl.900) and Ibn-al-Jazzar (d.1009) share the title to the authorship of the Viaticum; Constantinus translated it; Gerard of Cremona (ca.1114-1187) and Gerard of Béziers (13th c.) both apparently wrote a commentary on it (Bernard refers to a commentary by "Guiraldus," who is erroneously identified as Gerard de Solo (d.ca.1350) by the editor of the Lilium (Paris, 1542), fol.196v,margin); moreover, Egidius Corboliensis (d.ca.1224) composed a Viaticus de signis et symptomatibus aegritudinum, ed. by Valentin Rose (Leipzig, 1907).

13. Part I, Book I ed.and tr.by Marco T.Malato and Umberto De Martini, L'Arte Universale della Medicina (Pantegni) (Rome, 1961)

14. Ed.by Eugenio Fontana, Il Libro delle Urine di Isacco L'Ebreo tradotto dell'Arabo in Latino da Costantino Africano (Pisa, 1966).

15. Although the editor of the Lilium (Paris,1542), fol. 157v, added Albucasis in the margin with reference to

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Bernard's discussion of ear obstruction, it would require further investigation to determine whether Bernard was familiar with Albucasis' Chirurgia, which had been translated at Toledo in the twelfth century by Gerard of Cremona.

16. See chapter II above, p.84 .

17. See chapter II above, p.84 ; for the commentaries, by Gerard de Solo and by Johannes de Tornamira, see below, Appendix I.

18. Sarton, Introduction, II, 833.

19. In addition to the changes in Montpellier's curriculum (chapter II above), see the decreasing percentages of references to Avicenna, note 6 above.

20. Besides Avicenna's Canon, Bernard also cited his Sextus naturalium and his De animalibus (under the title De historiis animalium), and refers to his Cantica (through Averroes' commentary, which had been translated by Ermengaudius Blasius at Montpellier in 1283).

21. "Dicit Avicenna auctoritate Galeni," passim. Also, "secundum intencionem Galeni prout narrat Avicenna," De conservacione, II.De urinis, XIV, in MS VAp 1174, fol.41v; and "Avicenna convenit cum Galeno," ibid., IV.Regimen sanitatis, XI, fol.64v.

22. For example, "magister primus Ypocras docuit pronosticare," Lilium, VII.19, in MS BM Harl.3698, fol.97r;

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

or "primus magistrorum omnium Ypocras docuit pronosticare in aphorismis," De conservacione, II.De urinis, VII, in MS VAp 1174, fol.33v.

23. See chapter V, n.184 above.

24. In the reading list of 1309, Galen's commentaries on the first three of these Hippocratic writings are designated as "medicinales conmentatos," see chapter II above.

25. However, it may be assumed that Bernard knew the De methodo medendi ad Glauconem, which deals with a subject he considered very important, namely the differences between fevers. Several other Galenic works may lie concealed among the 173 instances where Bernard simply referred to Galen without citing a specific work.

    For the Ad Glauconem, see C.G.Kühn, ed., Claudii Galieni Opera Omnia, XI(Leipzig, 1830); also see TK,index.

26. "Princeps medicorum," Lilium, V.6, in MS BM Harl.3698, fol.64r and passim.

27. "Secundum Galenum VII de Ingenio sanitatis nullus potest Deo melius approximare quam studendo in veritate et per veritatem, ibid., prologue, fol.1r.

28. Thus, citing Galen's view that growth is finished at the age of 21, Bernard asserted "et in hoc Galenus convenit cum ecclesia, quoniam ecclesia non precipit ieiunium nisi post annum xxi et reddit causam ne impediat augmentum,"

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De conservacione, IV.Regimen sanitatis, XV, in MS VAp 1174, fol.69r.

29. "Constriccionem pulsus solus Deus novit et Galenus servus eius...," ibid.,III.De pulsibus, fol.52r. Also, "in pulsibus sunt duo que nullus mortalis potuit cognoscere, nisi solus Galenus...(tactile knowledge is too difficult or even impossible) nisi soli Galeno qui habuit tactum delicatissimum cum ingenio claro," ibid., II.De urinis, III, fol.30r.

30. "Accidit Galeno dum, antequam sciret artem sanativam, infirmatus est egritudine forte valde... curatus est, que curacio fuit toti mundo magna consolacio," Liber pronosticorum, IV.1, in MS VAp 1174, fol.87v.

31. "Venerabilis Egidius satis bene pertractavit [contenta urinarum]..." However, Galen says that hairs are produced by thick humours, "ideo quiescant illi versus Egidii, Forma pili similis etc."; and Galen did not say that "contenta crimnoidalia" are determined by the solid limbs, "ideo non possunt attestari de tercia specie ethice sicut opinatus est Egidius, ideo dormiant illi versus, Certa fides per crimnoides...," De conservacione, II.De urinis, XXVI, in MS VAp 1174, fols.48r-49r.

32. Phlebotomy should be applied at the onset of sanguineous fever, "non obstante opinione Serapionis, quia Galenus vult hoc," Lilium, I.5, in MS BM Harl.3698, fol.4r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

33. With regard to iectigacio (a spasmodic way of walking) "contrarietas videtur esse inter Gal.5 de Morbo et Viaticum, quoniam Viaticus dicit quod est motus nature et morbi...sed Galenus quod est morbi..." But because it is similar to tremors, "quantum ad hanc apparenciam iudicans Viaticus dicebat," ibid., II.29, fol.36v.

Also, "ventositas intestinorum" can result from heat according to Galen, even though "oppositum videtur dicere Viaticus," ibid., V.12, fol.68v.

On the identity of "Viaticus" see note 12 above.

34. "Sensus communis radicaliter et originaliter est in corde et ita intelligit Aristoteles. Sed manifeste est in cerebro et ita intelligit Galenus; et si ex hiis possunt esse amici placet mihi," Lilium, II.18, in MS BM Harl.3698, fol.29v. The same hesitation is expressed by Rasis: "if Galen and Aristotle are of one mind on a subject, then of course, their opinion is true. When they differ, however, it is extremely difficult to decide which opinion to accept," cited (without reference) by Victor Robinson, "Rhazes," Medical Life, XXVIII(1921), 208.

35. One instance, too long to be cited here, concerns the different opinions of Galen and Avicenna with regard to the things that impede phlebotomy: De conservacione, I. De flebotomia, V, in MS VAp 1174, fol.16v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

36. "Contrarietas videtur esse inter Galenum et Avicennam (namely Galen, De crisi II, lists three simple fevers, Avicenna, Canon IV, adds a fourth, caused by the blood) ...Avicenna autem multum scandalizatur de verbis Galeni ...ista questio determinata est a nobis cum solemnitate supra librum Galeni de differenciis febrium, ideo breviter dico quod si consideramus vaporem sanguinis putrefactum, tunc dico illum converti in choleram, quantum autem ad causam antecedentem sanguis solum putrefit, sed quantum ad [causam] coniunctam, non. Vel possumus dicere quod in fieri sanguis facit febrem singularem, sed quantum ad factum esse, non; uno modo intellexit Galenus, alio modo Avicenna, et ita non est contrarietas. Sed mirabile fuit de Galeno quod talia dixit," De conservacione, II.De urinis,XX, in MS VAp 1174, fol. 43v.

37. For example, "Queritur de contrarietate que videtur inter Galenum et seipsum ubi contra seipsum videtur dicere quod color viridis causatur a frigore (in De pronosticis,I)...a calore (De pronosticis,II)...ita videtur contrarius sibi ipsi. Dico colorem viridem causari a calido adurante et frigido mortificante..." Then Bernard marshals the authority of Aristotle and Avicenna, as well as interesting observations on the effect of warmth on the greening of leaves and of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ponds, but he fails to give concluding evidence for the effect of cold. He concludes, however, "color viridis potest causari a calido et frigido, et ita nulla est contrarietas," De conservacione, II.De urinis,XXIV, in MS VAp 1174, fol.46v.

Another instance of a Galenic inconsistency is found in Bernard's Lilium, VI.16.

38. "Galenus videtur contrarius sibi ipsi... quid sit dicendum ad hoc ego non video, nisi sub quodam nubilo si littera est vera sicut iacet.... quoquomodo se habeat negocium, propter ista verba non mutatur causa nec signum nec operacio et ideo videtur mihi quod disputacio sit de nominibus," Lilium, III.2, in the printed edition (Venice, 1498),fol.39v. This passage is lacking in MS BM Harl.3698, but the context strongly suggests a scribal omission.

39. "...nec aliquid quod hic sit dictum est contrarium dictis Galeni 5.de ingenio," Lilium, III.10, in MS BM Harl. 3698, fol.42v.

40. "Queritur utrum balneum aque ferventis competat in alletis [sic, atletis] et pugnatoribus...et videtur quod non. ...Talis aqua inducit rigorem secundum Galenum in de morbo et ita esset timendum de febri.... Respondeo primo dico quod ego facerem," and Bernard describes the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

hot bath he would administer. Then, "attamen, quia maior est Galeni auctoritas quam tota mea perspicacitas, ideo si littera Galeni est vera sumantur dicta eius... sed fuit quidam modus loquendi," De conservacione, IV.Regimen sanitatis,XVI, in MS VAp 1174, fol.70v.

41. "Dicitur in Antidotario quod Galenus componit eam [sc. tyriacam], sed non est verum secundum omnes alios auctores; bene enim investigavit et consideravit et examinavit, sed Andromachus rex omnino ipsam perfecit antequam esset Galenus," De tyriaca, ed.Pagel, p.258. The Antidotarius which Bernard alludes to, is that by Nicolaus Salernitanus according to Pagel, ibid., n.9.
42. "Fuit consuetudo Galeni quod raro voluit totam materiam aggregare in uno loco," De conservacione, I.De flebotomia, IV, in MS VAp 1174, fol.12v.
43. "Disenteria appellatur fluxus humoralis cum sanguine, et salvo honore Galeni bene potest apparere fluxus sanguinis cum lyenteria [i.e.fluxu ventris]," Lilium,V.13, in MS BM Harl.3698, fol.69r.
44. "Secundum Galenum VII annis lactetur infans... sed racionabile videtur III annis (for boys) vel II (for girls)," De conservacione, IV.Regimen sanitatis,II in MS VAp 1174, fol.55r.
45. "Intencio Galeni IX de Ingenio quod fiat flebotomia usque ad sincopim. Videtur mihi quod tucius est facere flebotomiam multis vicibus donec deficiat materia et

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

non paciens: magis enim diligo quod egritudo aliquantulum prolongaretur quam si mors mihi imputaretur," Lilium, I.5, in MS BM Harl.3698, fol.3v.

It may be noted that another Montpellier author, Gualterus Agilon (fl.1250) had prescribed phlebotomy "usque ad proximitatem syncopis. Cave tamen ne cadat in syncopim," Summa medicinalis,VII, ed.Paul Diepgen (Leipzig, 1911), p.101.

46. "Galenus faciebat flebotomiam usque ad syncopem [virtute stante, et nullus debet syncopen sicut dicit Galenus vereri. Medici autem nostri temporis non faciunt usque ad syncopen, sed] hodie fiat, et cras, et ita paulatine donec totaliter fuerit evacuata, et ille modus est securior," De conservacione, II.De urinis,XX, in MS VAp 1174, fol.43r. The passage in brackets is lacking in this MS, but is found in all printed editions.

47. "Ad Galenum dico quod multa erant sibi licita que non sunt nobis licita pro tanto quod cercius et melius cognoscebat virtutem et ideo precipit in XI de Ingenio facere flebotomiam usque ad sincopim; nobis autem non expediret quoniam melius est et tucius quod flebotometur bis vel ter vel amplius quam si poneremus in illo periculo," De conservacione, IV.Regimen sanitatis,XIV, in MS VAp 1174, fol.68v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

48. It may be useful to indicate that such respected authors as Alexander of Aphrosisias, Rasis, Averroes, and Maimonides had kept alive a tradition of criticism of Galen. See Manfred Ullmann, Medizin im Islam (Leyden, 1970), pp.67-68; Salomon Pinès, "A Refutation of Galen by Alexander of Aphrodisias," Isis, LII(1961),21-35, and "Razi Critique du Galien," Actes du VIIe Congrès International d'Histoire des Sciences (Paris, 1953), pp.480-487; J.C.Bürgel, "Averroes 'Contra Galenum'; Das Kapitel von der Atmung im Colliget des Averroes als ein Zeugnis mittelalterlich-islamischer Kritik an Galen," Nachrichte der Akademie des Wissenschaften in Göttingen, I.Philologisch-historische Klasse, IX (1967), 263-340; and Joseph Schacht and Max Meyerhof, "Maimonides against Galen," Bulletin of the Faculty of Arts in the University of Cairo, VI(1939), 54-84.
49. "Magnam igitur vim habet consuetudo, non solum hoc est manifestum per viam experimenti ymmo et per actoritates et per raciones, quoniam natura gaudet in consueto...," Lilium, V.8, in MS BM Harl.3698,fol.66v.
50. "Nulla fortis medicina debet dari in pleuresi, quicquid dicant antiqui, et aliqui moderni iactant se illam viam tenere. Sed disputacionibus pretermissis non videtur racionabile," ibid., IV.9, fol.57v. Also, "aliqui

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ponunt repercussiva in principio pleuresis; sed ego non sum illius opinionis," ibid., fol.57r.

51. "Nec videtur procedere racio quam ponit Avicenna et quidam sequaces eius, quoniam ubi est sanguis multus malus et paucus bonus, flebotomia rapit bonum et dimittit malum... Nec valet racio, quia natura retinet bonum quia indiget, et dimittit abire malum," ibid., I.23, fol.16v.

52. "Viatici capitulo de tremore...videtur quod balnea precedant et alia subsequantur, quod est contra racionem, quia universalia debent precedere particularia," ibid., II.28, fol.36v. Another example: "Cerebrum et ossa possunt apostemari, licet Damascenus teneat contrarium, quoniam quicquid nutritur potest apostemari [dilatari]," ibid., II.20, fol.32r.

53. "Secundum Avicennam bonum est inebriari semel in mense, non propter ebrietatem sed quia ad ebrietatem sequitur vomitus, sudor, et secessus, que corpus habent mundificare... Et cum multi alii modi sunt purgandi vel purgacionis, et hoc sit ignominiosum, et eciam non est omnino tutum, quia ante vomitum bene potest incurrere apoplexiam, ideo ab aula nostre speculacionis totaliter sit remotum," ibid., II.21, fol.31v.

54. "Et ideo nullus catholicus scienter inebrietur quoniam licet sequatur vomitus et sudor tamen magnum periculum est quod incurrat apostemam [sic, apoplexiam] aut epi-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

lenciam aut suffocacionem et ideo infiniti modi sunt meliores... Ille autem modus purgandi corpus est sicut naufragium et ideo est totaliter contra Deum et racionem," De conservacione, IV.Regimen sanitatis, XII, in MS VAp 1174, fol.67r-v.

55. Or climate: for fevers "secundum Ypocratem competit farmacia ut elleborus niger...vel fellichimum cum asa, et istud dabatur tempore Ypocratis. Nos vero, qui sumus in alio climate, non utimur illis medicinis sed ventrem lenitivis cum cassiasi," Compendium regiminis acutorum, in MS VAp 1083, fol.282v.

Also the result of chronological differences between Hippocrates and Galen was underscored by Bernard with regard to gout: "magister primus Ypocras docuit pronosticare: Eunuchi non podagrizant...; et est verum quantum est ex parte coitus, sed hodie vadit aliter negocium quia eunuchi...multiplicant malum regimen, ideo incurrunt podagram... Secundum Galenum [Comm.in Aphorismis, VI.28] filii huius temporis vivunt in suavitate, luxuria et gulositate, et ideo sunt podagrici," Lilium, VII.19, in MS BM Harl.3698, fol.97r-v.

It is worth pointing out that Bartholomaeus Anglicus, on the contrary, still believed that eunuchs "have not podagra for they serve not Venus," De proprietatibus rerum, VII.59, tr. James Walsh, in Medical Life, XL(1933), 569.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

56. "Queritur utrum vinum competat pueris et mittitur quod non per Galenum qui dicit in de Regimine sanitatis... et per Avicennam... Contrarium vult communis usus per universum orbem quantum noticia pervenit ad nos et tamen pueri ex tali accepcione vini non leduntur," De conservacione, IV.Regimen sanitatis, V, in MS VAp 1174, fol.58r.

57. "In tempore antiquo non potabatur vinum ita communiter sicut nunc et patet quoniam Galenus non novit vinum de Chipro Marnau nec vinum quod vocatur de Vernachia... quoniam nullicubi facit mencionem de hiis, licet de multis valde longam facit mencionem," ibid., fol.58v.

The same two wines were described by Bernard in his De gradibus, ed.Pagel, p.260, ubi vide also for annotations by the editor.

58. "In tempore autem Avicenne nullus potabat vinum secundum legem suam nec adhuc potant et ideo non potuit determinare cum tanta certitudine," De conservacione, IV.Regimen sanitatis, V, in MS VAp 1174, fol.58v.

59. "Avicenna narrat multa illicita et inhonesta de coitu et narrat ea ad curam dandum, tamen quia aer defedatur ex talibus, ideo derelinquo," Lilium, VII.2, in MS BM Harl.3698, fol.90r.

60. The importance of experience was emphasized in such

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Hippocratic works as that On the Articulations, XLVII, "It is a valuable piece of knowledge to learn what things have been tried and have proved ineffectual, and wherefore they did not succeed," tr.Francis Adams, in The Theory and Practice of Medicine,ed.Emerson C.Kelly (New York, 1964), p.239.

61. For example, colic can be caused by a stone in the intestines, "sed hoc est de raro contingentibus, ideo actores [sic] non faciunt mencionem," Lilium, V.18, in MS BM Harl.3698, fol.74r. Or, "auctores communiter loquendo non ponunt nisi duas species morfee...de quo summe miror.... Et forte non posuerunt auctores quia non erant [cause] famose et raro accidunt," ibid., I. 23, fol.16r. Also ibid., fols.71r, 3v, and so on.

62. "Auctores enim quos vidimus non faciunt mencionem de istis [sc.tormentilla et herba tunici]; experimentum tamen vere certificat quod summe valent contra venenum," ibid., I.13, fol.7v.

63. "Ecce quod fit modo communiter de novo...," ibid., V. 20, fol.75r.

64. "Ego autem sum expertus succum radicis yreos...," ibid., VI.5, fol.81r. Also, "accidit mihi semel quod quidam restaurator antiquus paciebatur in auribus dolorem intolerabilem, et precesserunt universales pur-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

gaciones et operaciones particulares iuxta doctrinam Galeni et Avicenne et aliorum auctorum omnium, et nihil penitus valebant, et tunc apposui oleum de camomilla et in veritate curatus fuit," ibid., III.10, fol.42v.

65. "Postquam igitur Ypocras et Avicenna pronosticaverunt, dico ego quod ego vidi multos apoplecticos et in veritate nunquam vidi aliquem evadere; a morte igitur subitanea et morte eterna libera nos Domine," ibid., II. 26, fol.34v.

66. "Attamen ista verba aliquando mihi visa fuerunt fabule et ideo frequenter fabulavi contra istum verbum, 'Et similis simili servit, et regio regioni'. Quia secundum hunc modum videntur regiones ordinari secundum intellectum et racionem, quod est omnino impossibile. Attamen nunc victus sum propter experienciam et recordor de dicto Avicenne, Experimentum in hoc transit racionem...et experimento magis credendum est quam racioni cum contradicunt," De conservacione, II.De urinis, IV, in MS VAp 1174, fols.30v-31r.

67. "...frequenter decipitur medicus," Lilium, V.18, in MS BM Harl.3698, fol.74r. Also, the symptoms of pestilential fever "ut plurimum deludunt medicos," ibid., I.10, fol.6r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

68. "Ista materia est ita sordida quod magis clarificacione indiget, et ideo si aliqualiter prolongetur nullus debet habere pro malo. In primis occurrit mihi dubium propter ea que vidi in quodam viro, utrum esset possibile quod aliquis esset perfecte leprosus, nullo signo lepre in facie apparente, et videtur quod sic... Oppositum videtur sentire Galenus et Avicenna et alii omnes qui ponunt signa lepre incipere a signis repertis in facie... De ista questione ego nescio, Deus scit, sed tamen quod occurrit mihi sine preiudicio dicam hic...," ibid., I.22, fol.14v.

69. "Dico vobis quod tociens repeto de corrupcione figure, quoniam pessime iudicantur ut mihi videtur hodie leprosi; qui igitur aures habet advertat si vult," ibid., fol.15r.

70. "Et ideo coniector coniectura proxima veritati quod non erat lepra... Et ideo licet fuissem alterius opinionis, modo cum in isto opere diligenter laboraverim sum alterius, nec modo aliquem leprosum iudicarem; Deus tamen scit veritatem, ego nescio,"ibid.

71. "Flebotomia competit...licet auctores dicant oppositum," ibid.,I.23, fol.16v. Phlebotomy is also suggested for spitting blood, "licet Guiraldus et quidam alii videantur dicere oppositum," ibid., IV.6, fol.54r.

For the identity of Guiraldus, see n.12 above.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

72. "Nunquam vidi aliquem perfecte curatum per hunc modum quin finaliter moreretur. Credo quod melius esset quod fieret 5.vel 6.cauteria subtus umbilicum," Lilium,VI.5, in MS BM Harl.3698, fol.81r.

73. "Quicquid dicant auctores, melius est dimittere narcotica... quicquid dictum sit et ex hoc eciam dicetur," ibid., III.9, fol.41v.

74. In case of toothache, "narcotica debent fugari quantum est possibile," ibid., III.25, fol.47r.

75. For headaches, "cavendum tamen quod ista narcotizancia (opium, henbane, mandrake, and papaver) non exhibeantur nisi in magna necessitate et quasi in desperacione," ibid., II.10, fol.24v. Also, against pain in general, "si non est nobis alia via, quod stuporem inducamus," narcotics could be used, but "hoc fiat cum cautela quod in stupefaciendo non transeamus," De ingenio, in MS VAp 1083, fol.283r.

76. In case of diarrhea, "quidam supposuerunt sibi aliquando opium et mortui sunt," Lilium, V.16, in MS BM Harl. 3698, fol.73r.

77. Hippocrates, The Theory and Practice of Medicine, tr. Adams, p.x. This pledge is, in fact, cited by Bernard: "caveat tamen sibi quicumque sub pena sempiterna quod non doceat pocionem mortiferam nec aborsum facientem," Lilium, VII.15, in MS BM Harl.3698, fol.95v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

78. "Dicit Damascenus auctoritate Galeni quod Galenus expertus est oleum de balsamo ubi calefaccio est necessaria, et non invenit iuvamentum, et est mirabile cum sit calidum valde et preciosum, et cum multum ab auctoribus commendetur; veritati igitur experimenti relinquatur," ibid., II.10, fol.25r.

79. "...nisi totum postea experimento probetur, oraciones sunt rhetoricorum, qui proposiciones habent decoratissimas scienciam non tangentes," ibid., I.28, fol.18r.

80. For the use of 'experiment' to determine the property of a drug, see chapter IV above, p.208, on Bernard's advice in his De tyriaca to test a possibly poisonous drug; for the intensity of a drug, see chapter V above, p.263, on Bernard's De gradibus.

81. "Recurrendum igitur ad experimentum quod omnia rectificat...nec valet aliqua consideracio quantumcumque racionabilis fuerit nisi experimento comprobetur; et sicut dico quod experimentum clarificat quantitatem, ita et qualitatem, " Lilium, V.8, in MS BM Harl.3698, fol.66r.

82. "Intelligendum quod experimentum quod precessit est multum utile postquam lux racionis precessit et quia omnia medicinalia que dicta sunt, sunt abstersiva et mundificativa...(some are weak, some strong), ideo experimentator debet accipere aliqua ex fortissimis in

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

parva quantitate et de debilibus in magna quantitate," ibid., I.18, fol.11r.

The term "experimentatores" occurs also ibid., V.12, fol.68v.

Bernard also stated that, "cum medicamina non valent, prodest multa et diversa apponere, dum tamen sint regulata racione," ibid., III.10, fol.42v.

83. "Si enim effectum medicaminis non videris et in processu cognoscis quod non bene operaris, nullo modo moreris in errore sed corrige te ipsum...," De ingenio, in MS VAp 1083, fol.283v.

Also in administering the patient's diet, "quotidie oportet corrigere errores," Lilium, V.8, in MS BM Harl. 3698, fol.66r.

84. "Si autem timeas ignominiam, da ea que non possunt iuvare nec nocere, de quo sit curandum, sicut est simplex iulep et similia, et interim insiste libris die ac nocte: considera colorem, tumorem, dolorem, lesionem, operacionem, anatomiam...," De ingenio, in MS VAp 1083, fol.283v.

85. "In illis ergo quae experimento firmata sunt, nulla fiat innovatio," De tyriaca, ed.Pagel, p.259.

86. Avicenna (Canon III,fen 21, tract.1,cap.9) considered Aristotle's opinion erroneous, but it was taken over in Constantine's Pantechne (Theory IX,cap.13) and reoccurred

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

often in the West, according to Paul Diepgen, Frau und Frauenheilkunde in der Kultur des Mittelalters (Stuttgart, 1963), p.172.

87. Male fertility "potest experiri sic, quod semina proiiciantur in scutella plena aqua frigida, et si supernatet ille est sterilis, si vadat ad fundum fecundus indicatur... Multa alia experimenta ponuntur ab actoribus [sic], sed non adhibeo fidem quia empirica videntur," Lilium, VII.14, in MS BM Harl.3698, fol.94v.

88. "Dicunt eciam quod si vipera stranguletur cum filo et circumdetur collum, quod multum valet. Ista empirica non sum expertus, sed alia [experimenta] que dicta sunt feci frequenter," ibid., IV.1, fol.48v.

89. "[Medicus] operetur secundum artem scilicet per canonem Galeni et Hippocratis et aliorum sapiencium, et in hoc condempnatur omnis ars augurandi, vaticinandi et divinandi, sicut est ars geometrialis et suspendendi herbas ad collum, et omnia empirica et sorticina et fassina, et alia plurima que non est bonum revelare propter abutentes," De ingenio, in MS VAp 1083, fol.283v.

90. "Scolopendria collecta cum dominica oracione et portata ad collum curat fistulam," Lilium, I.19, in MS BM Harl.3698, fol.11r. Also ibid., III.2, fol.38v. And, "Dicitur quod si colligatur agrimonia cum oracione

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

dominica et ligetur in coxa mulieris laborantis in partu ...statim expellitur fetus," ibid., VII.16, fol.96r.

91. "Cum aliquis est in paroxismo si aliquis ponat os supra aurem pacientis et dicit tres istos versus procul dubio statim surget: Gaspar fert mirram, thus Melchior, Baltasar aurum. Hec tria qui secum portaverit nomina regum solvitur a morbo Domino permittente caduco...probatum est frequenter quod statim surgit," ibid., II.24, fol. 33r. For strikingly similar remedies, see Karl Sudhoff, "Magische Fallsuchtmittel," Archiv für Geschichte der Medizin, II(1909), 383-384. The formula was also recommended by, among others, Petrus Hispanus (ca.1220-1277) and Peter of Abano(ca.1250-1316); see Thorndike, Magic, II, 497 and 904.

92. "Dicitur eciam quod si scribantur versus et portantur ad collum, curatur. Dicitur eciam quod si pater et mater seu amici ieiunent tribus diebus et postea vadant ad ecclesiam et audiant missam et postea sacerdos fidelis dicat sibi supra capud tercium euangelium quod dicitur in ieiuniis quattuorum temporum in vindeminis post festum sancte Crucis ubi dicitur, Spumens et stridens et hoc genus emovetur cum ieiunio...et postea quod ille sacerdos postquam de nocte per intencionem legerit supra capud quod

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

scribat et quod portetur ad collum curat perfecte procul dubio. Multa alia...ita viscus quercinus si portetur ad collum...," Lilium, II.24, in MS BM Harl.3698, fol.33v.

For an English translation and a brief analysis of the passage, see William Lennox, "Bernard de Gordon on Epilepsy," Annals of Medical History, III(1941),372-383.

The Gospel cure was also described by Gualterus Agilon (fl.1250), who claimed "et nos probavimus illud" and cited Constantinus Africanus (Pantegni,V.17) as his source: Summa medicinalis, XI, ed.Paul Diepgen (Leipzig, 1911), p.109.

93. It may also be noted that most of Bernard's cures, including several omitted above (such as curds of a hare --leporis is translated as leopard by Lennox!--and goat's skin --capra tr.as boar by Lennox--) are found in Gilbertus Anglicus' Compendium medicine (Lyons, 1510), fol.109r.

94. "Tamen dico vobis de epilensia quod ego habui in cura mea multos iuvenes et senes, divites et pauperes, viros et mulieres...de omni specie et tamen nec per me nec per alium vidi aliquem curatum nisi esset puer...et tamen fui diligentissimus in omnibus et pacientes obedientissimi. Ego nescio causam, Deus scit," Lilium, II.24, in MS BM Harl.3698, fol.33r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

95. "Hoc dico propter hoc quia cum pacientes veniunt ad vos nolite vos ipsos dehonestare cum vanis et falsis promissionibus in curacione epilencie quia fere omnis epilensia cum magna difficultate eradicatur dato quod curari possit," ibid.

96. "Si aliquo modo competerent [repressiva] sicut voluit Ebemesue, tunc competerent in inicio iniciante, si quis presens esset, et Deus dedisset talem graciam quod principium inicians cognosceret, et quod portaret in manu aut in bursa medicamina repercussiva; sed quando possunt talia concurrere non videtur. Et ideo summe miror quomodo bonus Ebemesue solus dormita-bat," ibid., IV. IV.9, fol.57v.

97. For example, Damascenus held that milk is not good for headaches; Bernard observed that "tamen communis usus est in contrarium, et nullus aliorum hoc dicit," ibid., II.10, fol.25r. See also n.56 above, on common usage contradicting Galen and Avicenna.

98. "Non approbo sentenciam illorum qui impediunt in puellis generacionem pilorum in pudibundis cum narcoticis aut cauterio, aut quocumque alio modo, quia illi vapores retenti multa possunt facere vel inducere nocumenta," Lilium, II.1, in MS BM Harl.3698, fol.21r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

99. "Caveant igitur qui in sanitate faciunt incidi sibi uvulam ut melius cantent, quoniam sine dubio cum instrumentis vocalibus nunquam postea facient pulchram operacionem. Vigilate igitur," ibid., IV.2, fol.49r.

100. "...sicut faciunt communiter divites in villis et prelati et studiosi et consimiles," De conservacione, IV. Regimen sanitatis, XI, in MS VAp 1174, fol.66r. Also, on daytime sleeping, ibid., XIII, fol.67v. Bernard also pointed to the sedentary habits of "scholares, studentes, et religiosi, qui consueverunt esse in umbra et quiete...," De ingenio, in MS VAp 1083, fol. 283v.

101. "Vulgares tamen decipiuntur in isto balneo quia faciunt ante corporis mundificacionem, et ideo morbus augmentatur," Lilium, II.27, in MS BM Harl.3698, fol.35v.

102. On Regimen in Acute Diseases, II, tr.Adams, in The Theory and Practice of Medicine, ed.Kelly, p.60; also on "the vulgar": ibid., p.61. The same attitude is reflected in the aphorisms of Isaac Judeus on the "foolish opinions ...widespread among the people," Guide for Physicians, tr.Saul Jarcho, in Bulletin of the History of Medicine, XV(1944), 187.

103. "Multi [litargici] moriuntur propter assistentes, credentes quod hec sit impietas et malicia, et non per-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

mittunt talia fieri...et frequenter accusavi assistentes de homicidio quia non permittebant me operari... et multi eciam moriebantur et potissime illi in quibus non poteramus operari propter importunitatem assistencium." Bernard then relates an interesting case history: "fuit mortuus magister noster ex litargia et erat 40 annorum, colericus adustus, et erat ibi turba magistrorum, et omnes convenerunt quod aperirentur emorroydes, et cyrurgicus solus nullo magistro existente aperuit et extraxit ut dicitur sanguinem in nimia quantitate, in tantum quod semper processit debilitando donec mortuus est," Lilium, II.12, in MS BM Harl.3698, fol.27r-v.

104. "Et si [paciens litargicus] esset multum profundatus in somno gravi, sicut ego vidi multos, tunc trahantur pili barbe et pectoris, et trahantur nares, et fringantur digiti cum duplici strictura vehementi...sine omni misericordia, et habeatur sues cum porcellis coram facie eius...et tube sint ibi et campane magne et timpana et ferra magna que cotidie percutiantur cum martello et vasa enea, terribiles sonitus faciencia et clamores fortissimos, aliter dormiendo moriuntur, ibid., fol.27r.

A parallel, slightly different treatment was pres-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

cribed by Bartholomaeus Anglicus who acknowledged, "all this I have drawn from Platearius and Constantine," De proprietatibus rerum, VII.7, tr. Walsh, p.483.

105. "In lepra coitus non competit, licet sit vulgaris opinio et erronea, quod non solum confert sed curat ...dico vobis quod turpiter video homines errare in flebotomia leprosorum, multociens vidi quod ad nihil aliud intendebant medici nisi quod totum sanguinem trahunt. Vigilate ergo," Lilium, I.22, in MS BM Harl. 3698, fols.15v-16r.

106. "Aliqui enim dicunt se habere aliquos libellos apocrifos qui tractant de flebotomia secundum istum modum ...ista autem nullo modo sunt observanda, quia aspectus orbis benevolus aut malevolus non habet ita generalem et fixam et determinatam...ideo talia observare est ignorancia pura et curiositas et malicia quare ista quantum nunc ego possum apprehendere nullo modo sunt observanda," De conservacione, I.Flebotomia, XIV, in MS VAp 1174, fol.22r-v.

107. "Error ergo et curiositas consistit in observacione illorum dierum...," ibid., fol.22r. Bernard argued that the plagues affected only the Egyptian subjects of the Pharaohs, not the Jews in Egypt, and much less people of other regions and eras.

For a brief synopsis of the history of Egyptian

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

days, see Thorndike, Magic, I, 685-688.

108. "Si barbitonsor dicat pacienti quod est dies egyptiaca aut aliquis alter curiosus dicat, tunc oportet prolongare quia si aliquid accideretur totum medico imputaretur. Ubi tamen est necessitas tamen nihilominus facienda esset nec aliquo modo observare debemus nisi propter malum iudicium vulgarium...licet penitus dies nullam habeat efficaciam," De conservacione, I.Flebotomia, XIV, in MS VAp 1174, fol.22r.

109. "Nullus potest instituere flebotomiam luna existente in Geminis, quoniam aut nichil exibit de sanguine aut bis percutietur," Liber pronosticorum, V.8, in MS VAp 1174, fol.101r.

110. "Convenerunt et sapienciores astronomi quod flebotomia non est facienda luna existente in Geminis quoniam aut nullus exiet aut bis percutietur aut morietur. Mihi tamen accidit quod ego notaveram horam in qua luna precise esset in Geminis; postea volui facere flebotomiam in ipso in illa hora sed non eram memor et tunc quando fuit totum preparatum et ego fui recordatus et nolui dimittere et feci flebotomiam et nunquam melius fuit mihi," De conservacione, I.Flebotomia,XIV, in MS VAp 1174, fol.22v.

111. "Medicus debet facere omnes confecciones suas in certis

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

influenciis, verbi gracia volo facere medicamen constrictivum frigidum et siccum, sicut est diacodion, certe confeccio debet esse in simili influencia et complexione, et quia convenit radix inferior et superior, fortissima erit influencia," Liber pronosticorum, V.8, in MS VAp 1174, fol.101r.

112. "...forte si esset talis quod esset sub planeta benivolo facta, melius esset; sed istud dimitto quia illud directe non competit medico," Lilium, II.4, in MS BM Harl.3698, fol.22r.

113. "De aliquo autem sicut in isto capitulo non audeo perfecte asserere cum non dum meminerim auctoritate alicuius magistri in medicina et ideo istud lectoris industrie derelinquo," De conservacione, I.Flebotomia, XIV, in MS VAp 1174, fol.22v.

114. Magic, II, 857.

115. "Custodes autem tres sunt: orbes et sidera, et intelligencie divine, et Deus cuius nomen sit benedictus in secula..../... Cum ergo Deus immediate custodiat voluntatem et angeli intellectum et corpora celestia corpus humanum, patet quod magnificencia huius principatus [sc.hominis] est rutilans et preclara...," De conservacione, Prologue, in MS VAp 1174, fols.9v-10r.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

116. "Intelligend.m secundum doctrinam Egiptiorum quod secundum naturam constellacionis et influencie orbium in hora casus seminis in matrice accidit membrorum lineacio et figura, et secundum naturam influencie in hora nativitatis regulabitur tota vita in moribus, et a vultu cum vultus inferior sit subiectus vultui superiori," Liber pronosticorum, V.8, in MS VAp 1174, fol.100r. See also n.118 below.

117. "Natus in vii.mense bene potest vivere, quia vii planete iam ibi operati sunt, in viii.autem non, quia debilis videtur postquam in vii.non oritur, quia oportet expectare usque ad ix.et potissime quia iterum incipit dominare Saturnus in viii., sicut fecit in prima, et quia Saturnus immobilitat et inducit quietem cum sit planeta frigidus et ideo si moveatur contra inclinacionem orbis movetur...," Lilium, VII.16, in MS BM Harl.3698, fol.96r.

118. "Cum orbes non influant secundum necessitatem, influunt tamen secundum aptitudinem et secundum disposicionem, ita quod ad hoc si aliquis sit dispositus quantum est ex orbe, nunquam erit in contrario ita aptus," Liber pronosticorum, V.8, in MS VAp 1174, fol.100r.

119. "...figurabatur in dictis Galeni III.de Creticis: quedam est radix superior et ista adheret vie uni et ordi-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ni uni sicut sunt motus orbium; et quedam est radix inferior et ista non adheret vie uni nec ordini uni et est incipium morbi," De conservacione, IV.Regimen sanitatis, Prologue, in MS VAp 1174, fol.53v. See also the following note.

120. "Est intelligendum naturam dierum criticorum sumere a duplici indicacione, quarum una est inferior sumpta a materia morbi, que quidem est agitabilis et variabilis, non adherens vie uni nec ordini uni. Alia autem est sumpta a radice superiori, que quidem...adherens vie uni...unde omne quod est pulchrum et honestum de sursum provenit." Bernard then explains the respective rôles of the sun and the moon, and adds the interesting elaboration that "luna hiis inferioribus dominatur, non propter virtutem suam maiorem, sed quod magis approximatur ad nos et recipit influenciam omnium superiorum, unde maxime in humido dominatur, quod probant conchilia et fluxus et refluxus maris; unde luna assimilatur consuli, sol autem regi magno, ...sol est in medio stellarum erraticarum, sicut rex in regno suo, unde nullo indiget, omnes autem eo indigent...," Liber pronosticorum, V.8, in MS VAp 1174, fol.99v.

121. On the probable source and the development of this belief, see Brian Lawn, The Salernitan Questions

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

(Oxford, 1963), p.204. On its occurrence in Alexander Neckam's De naturis rerum (ca.1200) and in Thomas of Cantimpré's De natura rerum (ca.1260), see Thorndike, Magic, II, 202.

122. "Dormire in radiis lune et potissime quando intrat per foramen angustum, pessimum, ymmo facit screare sanguinem, sicut dicit Avicenna, propter nimiam humiditatem. Et dicunt experti quod si radius lune intraverit per fenestram et tetigerit roncinum ulceratum [or, vulneratum], est causa mortis eiusdem," Lilium, II.16, in MS BM Harl.3698, fol.28v; also ibid., IV. 6, fol.53r.

123. "Febres pestilenciales sunt iste que adveniunt [for this incipit, see TK 550] in temporibus corruptis et sterilibus cum corrumpuntur segetes et aqua et aer... Signa autem pestilencie future cum apparet stella comata, caudela rotunda...," Lilium, I.10, in MS BM Harl. 3698, fol.6r. "Porcio sicci [ventus] est materia cum qua inflammantur stelle comate, caudelle rotunde, stelle cadentes...et aliarum impressionum multarum, et inflammatarum apparencium tempore calido et sicco, tunc fontes et flumina desiccantur, et tunc prognosticant gentes guerras et mortem regum, quod posset esse propter multiplicacionem cholere anno illo, que movet ad iram et impetum...," Liber pronosticorum, II.8, in MS VAp 1174, fol.84v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

124. "Mirabile videtur de basilisco, quod solo visu interficiat... Dico quod multa possunt ab animalibus emitti mala et corrupta, et ideo mulier menstruata inficit speculum et lupus facit hominem raucum. Aliqui sunt homines qui interficiunt fixe intuendo aves, pueros parvos et equos, tamquam si essent fascinatores. Et ideo non est mirabile si basiliscus, cum sit animal venenosissimum, corumpat aerem et interficiat ad longam distanciam...," Lilium, I.14, in MS BM Harl.3698, fol.8r. See also De tyriaca, ed.Pagel, p.235.

On the tradition of the basilisk and its deadly glance, from Pliny to Oresme, see Thorndike, Magic, I,75; II,202,433,562,901,905; and III,433,435.

125. "Vadamus ad reges, quia reges consueverunt curare solo tactu, et potissime serenissimus Rex Francorum; et ideo morbus regius appellatur," Lilium, I.21, in MS BM Harl.3698, fol.12v. On the healing of scrofula by a different kind of magical touch, see Thorndike, Magic, I,82.

126. "Vulgares quando vident talem, credunt eum esse raptum, et quod loquatur cum Deo et angelis suis. Sed tamen celum vim patitur et violenti rapiunt illud [Matthew, XI.12]," Lilium, II.15, in MS BM Harl.3698, fol.28r-v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

127. "Bolismus accidit frequenter itinerantibus et transeuntibus per loca nivosa et frigida, ideo vulgares dicunt quod aliquando herbam calcavit que habet aspectum ad augmentandum appetitum; tamen ista est veritas quod tales sunt cum inanicione corporis," ibid., V.4, fol.63r.

128. "Dicit Avicenna quod aliquando dicitur quod ista passio [sc.melancholia] provenit a demonio. Et dicit Avicenna quod cum ipse doceat fisicam, de hoc non se debet intromittere, quoniam quomodocumque vadat negocium, causa immediata semper est melancholica, a quocumque fiat transmutacio," ibid., II.19, fol.30r.

129. "Incubus est nomen demonis, et ideo volunt aliqui quod quando ille incubus directe est supra corpus humanum, et potissime quando iacet et dormit resupinus racione corrupte influencie, aggravans corpus, ita quod videtur pacienti quod suffocetur...et est opinio theologorum. Vulgares tamen dicunt quod est aliqua vetula calcans et comprimens corpus et hoc [nihil est. Medici autem melius opinantur. Incubus autem provenit] ex causa intrinseca et ex causa extrinseca...," ibid., II.14, fol. 32v. The bracketed passage is found in the printed editions, though lacking in MS BM Harl.3698, obviously because of a scribal error.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

130. The Hippocratic treatise On the Sacred Disease opens, "It is thus with regard to the disease called Sacred: it appears to me to be nowise more divine nor more sacred than other diseases, but has a natural cause from which it originates like other affections," tr. Adams, in The Theory and Practice of Medicine, ed. Kelly, p.347 and following pp.

131. Lilium, II.25, in MS BM Harl.3698, fol.32v.

132. Walter Pagel, review of Owsei Temkin, The Falling Sickness (Baltimore, 1945), in Isis, XXXVI(1945),277.

133. Air should be cleansed, "potissime in magnis civitatibus ubi aer est caliginosus et humidus, cum sunt supra magna flumina constitute, sicut est Roma domina provinciarum, et Lugdunium, Civitas Arelatensis, Parisius, Tholosa, et Narbonensis... Qui igitur non est potens se transferre ad montes, cum flabellis rectificetur aer aromatica apponendo," Lilium, V.8, in MS BM Harl.3698, fol.66r.

134. "Solus ille cibus qui caret omni additamento competit corpori humano sicut scribitur a Galeno ad Elleboros [i.e.Commnentum supra Aphorismos Hippocratis]," ibid.,

135. "Natura sagax est cuius sagacitatis non est finis." Nature expels what is harmful and retains what is good, "opus ergo nature est opus intelligencie," De conser-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

vacione, IV.Regimen sanitatis, VII, in MS VAp 1174, fol.61r. Also, "natura sagax, cuius sagacitatis non est finis, dedit multa animalibus loco armorum...bovi cornua et equo soleas et lepori levitatem pedum," Lilium, III.25, in MS BM Harl.3698, fol.47v. This idea was applied by Bernard to teleological explanations of such phenomena as nails and hair, ibid., I. 28, fol.19v; II.1, fol.21r; and II.2, fol.21v.

136. "Menstrua puellis enim veniunt in prima quadra [lune], iuvenibus in secunda, et illis que magis processerunt in tercia quadra, aliis in ultima quadra; ex hoc possumus elicere quod iuvenes debent flebotomari in nova luna et senes in antiqua, quoniam ars est imitatrix nature; bene dicitur igitur: Luna vetus veteres, iuvenes nova luna requirit," ibid., VII.8, fol.92r.

137. See the famous passage in the Hippocratic work On the Epidemics, 5, "The physician must be able to tell the antecedents, know the present, and foretell the future ... The physician is the servant of the art, and the patient must combat the disease along with the physician," tr.Adams, in The Theory and Practice of Medicine, ed.Kelly, p.104. In an instructive note, ibid., Adams summarizes the remarks which Galen made in his Commentary on the Epidemics [Opera, ed.Kühn, XVII.1,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

147], pointing out that Galen "informs us that in some of the MSS instead of 'art' he found 'nature'; that is to say, that the physician is 'the minister (or servant) of nature'." See also Galen, Ars medica, III.66.

138. Perspiration must sometimes be provoked if the patient does not react to treatment, "excitanda igitur est natura cum medicus sit minister eius," Lilium, I.11, in MS BM Harl.3698, fol.6r. Also, "cum medicus sit minister nature," ibid., III.16, fol.44r. Bernard also had much to say about habit as a "second nature," and therefore "omnis consuetudo innaturalis reducenda est ad naturalem," ibid., V.8, fol.66v.

139. "Flebotomia et farmacia sunt multum conservanda ne virtus debilitaretur, quia virtus est que curat morbos," ibid., IV.9, fol.56v. Bernard's caution was quite in contrast with the unqualified praise of phlebotomy in the Regimen sanitatis Salernitanum: see The Regimen of Health of the Medical School of Salerno, ed.and tr.by Pascal Parente (New York, 1967), pp.58-59.

140. According to Avicenna, it is not always necessary to cure by contraries, but a good regimen may suffice, Bernard stated. "Medicus igitur melior est, qui egritudinem cum cibis et potibus curare poterit vel sciverit," De ingenio, in MS VAp 1083, fol.283v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

141. "A medico necessitas observetur in omnibus iuxta naturam egritudinis et aliorum particularium... Prima [condicio] est summe necessaria, ex hoc quod sit potens interpretari sermones Gàleni et Ypocratis, et universalia...particularibus applicare, quare oportet quod sit sciens," ibid.

It may be added that Bernard also emphasized the knowledge necessary for the surgeon: "restaurator debet esse sollicitus in cognoscendo complexionem membrorum, et sensum et nobilitatem et naturam medicaminum," Lilium,I.26,in MS BM Harl.3698, fol.18r; for eye diseases, "recurramus ad cyrurgicum literatum et expertum" or to "doctum cyrurgicum," ibid.,III.2, fol.38r; Bernard also remarked that surgeons "ut plurimum sunt ignorantes," ibid.,V.21, fol.75v, --so that "multos vidi mori in manibus restauratorum," ibid.,III.10, fol.42v and VII.7, fol.91v--. Furthermore, Bernard also required the midwife, and even the wetnurse, to be learned or informed ("docta"), ibid., VII.11, fol.93r, and VII. 16, fol.95v; De conservacione, IV.Regimen sanitatis, II. He expected the nurses ("ministri"), on the other hand, to be diligent and loving, De ingenio, fol.283v; such nurses, however, are found only rarely ("licet raro inveniantur"), Liber pronosticorum,V.5, in MS VAp 1174, fol.98r. The cook, finally, should be clean and temperatus, in complexion if not in appetite, De ingenio, fol.283v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

142. "Secundo sit diligens, scilicet quod mane visitet pacientem, potissime quando est in periculo, et potissime propter urinam et residenciam, ut videat colorem et substanciam antequam corrumpantur, et quod ordinet de cibo infirmi et aliis particularibus, et obviet periculis futuris, et reprimat precedencia. Secundo debet visitare in meridie, ut possit bene videre terminum, actum, naturam et composiciones morborum et accidencia eorum; tercio circa noctem ut ordinet somnifera et medicamina, et cibum in crastinum, et alia omnia que potest considerari circa infirmum, quod reddat ipsum obedientem et assistentes diligentes...," De ingenio, fol.283v. For Bernard's third rule for the physician, see n.89 above.

143. "Sciencia autem predicandi est utilis ad multa, quia audita pronosticacione vera, paciens redditur obediens et imaginatur quod medicus est potens ipsum curare. Subvenit eciam futuris periculis et preservat medicum ab infamia et dehonestate," Liber pronosticorum, prologue, in MS VAp 1174, fol.73v. Also Lilium, I.4, in MS BM Harl.3698, fol.2v, and I.7, fol.4v.

144. On epilepsy, "nolite dehonestare vos ipsos cum vanis et falsis promissionibus," Lilium, II.25, fol.33r. Also "utile est igitur pronosticare ne impossibile

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

promittamus," ibid., II.1, fol.21r; and, since asthma is practically incurable, "caveat sibi igitur medicus de vanis promissionibus," ibid., IV.8, fol.55r.

145. See especially the Hippocratic Book of Prognostics, in The Theory and Practice, ed.Kelly, pp.42-43; also the advice that "one should try to escape from [hopeless] cases, provided one can do so honorably, for the hopes of recovery are small," in the Hippocratic On Fractures, ibid., p.198.

On the idea of the physician's honor, see the excellent historiographical survey by J.H.Wolf, "Der Wille zum Ruhm; Meditationen über den letzten Satz des hippokratischen Eides," in Melemata; Festschrift für Werner Leibbrand, ed.J.Schumacher (Mannheim, 1967), pp.243-247.

146. If a patient in coma does not react to stimulants, "statim fugiat medicus hospite insalutato," Lilium, IV.12, in MS BM Harl.3698, fol.58v; also ibid., II.22, fol.32r. Somewhat closer to the Hippocratic original (see preceding note) was Bernard's advice that the symptoms of advanced consumption "significant mortem in ianuis. In talibus non competit medicacio sed, quantum erit possibile, fugere," Liber pronosticorum, IV.2, in MS VAp 1174, fol.88v; also ibid.,IV.12,fol.94v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

147. Advanced leprosy "non curabitur, sed vitam prolongare possumus et impedire cum medicaminibus quin materia melancolica venenosa veniat ad cor," Lilium, I.22, in MS BM Harl.3698, fol.13v. For patients with advanced consumption with diarrhea, "licet approximentur morti, tamen bonum est vitam prolongare quantum est possibile," ibid., V.16, fol.73r.

148. Continue medications "donec revixerit aut mortuus fuerit ut non possit dici quod ex defectu medicaminum deficiat... Quando tu es vocatus ad pacientem et vides eum sine sensum et motum...tunc voca cum proprio nomine et alta voce et trahe eum per capillos et conduplica digitos,..et punge ipsum cum acu et stilo... Aliquando tamen est magnum dubium utrum sit vivus vel mortuus propter privacionem sensus et motus et hanelitus et pulsus et tunc claudantur omnia foramina domus et flosculum lane minutissime carpinatum ori eius apponitur et si moventur pili lane procul dubio adhuc vivit... Debet stare per 72 horas antequam sepeliatur, et pauci aut nulli habent amicos, et ideo multi valde sepeliuntur vivi," ibid., II.26, fol.34v-35r.

149. See above, pp. - and nn. .

150. "Ista autem sunt que inducant aborsum...elleborus niger, pulpa col.electatrides[?], fel tauri... Caveat

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

tamen sibi quicumque sub pena sempiternali quod non doceat pocionem mortiferam nec aborsum facientem," Lilium, VII.15, fol.95v.

151. "Coytus non est licitus nisi gracia prolis... quibus autem ex lege licencia data est coeundi coeant gracia prolis," De conservacione, IV.Regimen sanitatis, XIV, in MS VAp 1174, fol.68v.

152. Because coition, according to Bernard, was one of the chief occasions of leprous contagion, "si aliqua opportunitas et malicia cogeret, ingenietur quod semen exeat matricem, saltando, sternutando et balneando, et matricem cum aquis mundis abstergendo, et quod eciam precedat longum tempus quantum erit possibile. Et multi alii modi sunt quos non oportet nominare in expellendo semen receptum, sin autem paret se ad cucurbitam et ad opprobrium sempiternum," Lilium, I.22, in MS BM Harl.3698, fol.13r.

On the presumed connection between coition and leprosy and on this Gordonian passage, which has fascinated historians of medicine, see Edmund Güntz, "Aussatz und Syphilis nach den Quellen des Bernhardus Gordonius," Archiv für Dermatologie und Syphilis, II(1870), 59-77; Hans C.Carlowitz, Der Lepraabschnitt aus Bernhard von Gordons "Lilium Medicinae" in mittelalterlicher Deutscher Uebersetzung (Leipzig, 1913); and R.C.Holcomb,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"The Antiquity of Congenital Syphilis," Bulletin of the History of Medicine, X(1941), 148-167, where also an English translation of Bernard's chapter on leprosy is given.

153. See Henry E.Sigerist, "Bedside Manners in the Middle Ages; The Treatise De cautelis medicorum, attributed to Arnold of Villanova," Quarterly Bulletin of Northwestern University Medical School, X(1946), 136-143; also Mary C.Welborn, "The Long Tradition: A Study in Fourteenth-Century Medical Deontology," Mediaeval and Historiographical Essays in Honor of James Westfall Thompson (Chicago, 1938), pp.344-357.

154. By his emphasis on ethics, rather than on etiquette, Bernard would seem to belong more to the 'old school', whereas Arnold and Henri exemplified the "new secular emphasis," outlined by Loren C.MacKinney, "Medical Ethics and Etiquette in the Early Middle Ages: The Persistence of Hippocratic Ideals," Bulletin of the History of Medicine, XXVI(1952), 25.

155. "Queritur utrum medicus in quantum medicus teneatur considerare [moralia] et videtur quod non.... Intelligendum ergo quod de istis moralibus possumus loqui dupliciter, aut habendo solum aspectum ad animam, et ita tractat philosophus; medicus autem ulterius in rela-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

cione ad corpus... medicus considerat sanitatem et per consequens omnia que attribuuntur sanitati, et quia sanitas conservatur et amittitur et reducitur per moralia ideo medico pertinet in quantum medicus est...ista moralia pertractare..." Bernard then gives several examples, cited from Avicenna and Haly, illustrating psychosomatics. "...ita mala complexio sequitur malos mores,...et ita saltim in relacione ad corpus magnus moralis medicus debet esse," De conservacione, IV. Regimen sanitatis, VI, in MS VAp 1174, fol.60r.

156. "Quia summa philosophia est scire inter homines conversari et inter omnes artifices et homines scientes communiter magis converssatur medicus inter homines, ideo tenetur scire aliquam scienciam moralem," ibid.

157. See, for example, on memory, Lilium, II.12; on lovesickness ("amor hereos"), ibid., II.20; and on melancholia, ibid., II.19, especially, in MS BM Harl.3698, fol.30v, where Bernard gives, from personal experience, an interesting suggestion for psychosomatic treatment: "vidi enim melancolicum et a fortuna cum gladio fuerat vulneratus et...quam diu fuerit vulnus apertum optime fuit curatus et statim cum vulnus fuit curatum et clausum reversa fuit mania, et puto quod si vulnus fuisset diu apertum et fuisset remediatus sicut oportet, quod curatus fuisset."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

158. The combination of piety and psychosomatics is illustrated in Bernard's discussion of vertigo: "Ad bonitatem ergo iudicii multum facit temperamentum complexionis et humorum... Quare eligendus est magis doctus, bone complexionis et habitudinis, ut medicus operans, et iudex et socius, et omnis quo indigemus, quoniam si corpus temperatum corrumpitur, quid erit de distemperato? Non est igitur aliquid ut videtur quod ita faciat ad bonitatem speculacionis divinorum et humanorum, sicut bonitas regiminis et morum," ibid., II.11, fol.27r.

159. See above, n.54. Also, on coition: "cui data est licencia secundum legem debet spergere semen in matricem tantum et nullomodo in alio foramine secundum legem et naturam," Lilium, VII.1, fol.88v.

160. "Non est bonum cum aliquis loquitur quod comedat quod cibus transiret ad pectus nec e converso quod aer transit ad stomachum, et hoc potest esse una racio quare religiosi non loquuntur in mensa, ne una operacio impediat aliam," ibid., III.23, fol.46r.

161. "Inter illa que mirifice conservant sanitatem anime et corporis est quod homo in omnibus actibus suis sciat temperate se in accidentibus anime [habere]... quod et non irascitur nec timeat nec tristetur nec doleat nec lugeat nec alicui invidiat...sed cum summa

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

paciencia sustineat... Quoniam corpus sequitur animam in suis accionibus sicut anima corpus in suis passionibus... Gaudium temperatum impinguat secundum Galenum [et] Avicennam," De conservacione, IV.Regimen sanitatis, XV, in MS VAp 1174, fol.69r.

162. "Justitia enim legalis est omnis virtus, quae praecipit omnibus aliis; praecipit enim temperantiae... fortitudini...prudentiae...," De tyriaca, ed.Pagel, p.222.

163. For Hippocratic ethics and 'naturalism', see Pedro Lain Entralgo, "La etica hipocratica," in Melemata; Festschrift für W.Leibbrand (Mannheim, 1967), pp.57-63.

For Galenic ethics and 'naturalism', see L.Meunier, "Essai sur Galien et le Galénisme," Janus, IX(1904), 270-284, 313-324; and Walther Riese, "La pensée morale de Galien," Revue Philosophique de la France et de l'Étranger, LX(1963), pp.331-346.

164. "Hanc autem beatitudinem nullus potest adquirere ex suis principiis naturalibus sicut crediderunt et male philosophantes primi...," De conservacione, IV.Regimen sanitatis, Prologue, in MS VAp 1174, fol.52v-53r. And, "non quod in hanc felicitatem possint ex principiis naturalibus devenire sicut crediderunt philosophi antiqui sed indigent graciam...," ibid., fol.53v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

165. Bernard's combination of pagan and Christian viewpoints was especially striking in the prologue to his De conservacione, IV.Regimen sanitatis, of which I hope to do an analysis and text edition in the near future.

166. For more on Bernard's classical literary and theological references, see chapter IV above.

167. "...spiritus visibilis transit de uno oculo in alterum, quod patet quoniam balistarii quando volunt proiicere recte, claudunt unum oculum ut visus fortificetur in altero," Lilium, III.6, in MS BM Harl.3698, fol.40r.

The development of the concept of spiritus visibilis ("Sehgeist") from the Pre-Socratics, Plato, Aristotle, and Galen to the Arabs, was surveyed by M.Meyerhof and C.Prüfer, "Die Lehre vom Sehen bei Hunain ben Ishâq," Archiv für Geschichte der Medizin, VI(1913), 21-33.

168. There are striking similarities as well as differences, for example, between Bernard's observation and that of Bartholomeus Anglicus that "ingeniose fecit natura ut altero [oculo] clauso et impedito spiritus vitalis [sic] ad alterum se transferat et ibi perfectius suam compleat actionem; unde tunc pupilla videndi actu confortatur propter virtutis visive coadunationem ut patet in sagittariis qui uno oculo clauso directius iaculant et sagittant," De proprietatibus rerum, V.6, in the

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

first printed edition (Nürnberg, 1483; Hain 2505), fol.34r.

169. "Secundo patet quoniam si claudatur unus oculus, tunc latus narium oculi aperti potest videri, et si ambo essent aperti non videretur," Lilium, III.6, fol.40r. The probable originality of this observation was pointed out to me by Professor David Lindberg (University of Wisconsin) and Professor Bruce Eastwood (Kansas State University), who are both experts in medieval optics.

170. "Aliquando apparet quod sit ille tinnitus qui apparet post pulsacionem campane; aliquando apparet pacienti quod sit pluvia magna, aliquando quod sit sicut sonus molendini, aliquando sicut fragor arborum, aliquando sicut mustum bulliens in doleo in novitate vinorum," Lilium, III.9, in MS BM Harl.3698, fol.41v.

171. "Si venter agitetur, sonat sicut uter semiplenus aqua, sicut sonaret coac coac," ibid., VI.5, fol.80v.

172. Examples of literary verses cited by Bernard: the judgment of lovesick persons "corruptum est et ideo dicebat versificator, Omnis amoris decus non est amor arbiter equus non de forme pecus iudicat esse decus; et alibi, Si quis amat ranam, ranam putat esse Dianam," ibid., II.19, fol.31r. Children have good memories,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"iuxta illud, Quod nova testa capit, inveterata sapit," ibid., II.12, fol.27v. Also see chapter IV above, n.101.

Some examples of medical mnemonic rhymes: on asthma "stat versus, Disnia se celat, canit asma morbumque revelat," and "Expirant late, trahit ad se cum gravitate, omnis anhelosus, e contra sanguisugosus [?], orthopnea quoque morbo versatur utroque," Lilium, IV.8, fol.55r. An antacid "est tante virtutis quod versificator dixit, Si vis me mittere, si vis dirimere litem, de diaconitem da mihi frater item," ibid., V.7, fol.62r. On the function of each vital organ: "Cor sapit et pulmo loquitur, fel commovet iras; splen ridere facit, cogat amare iecur in avibus, stomachus in hominibus," ibid., VI.7, fol.83v. On phlebotomy "stat versus, Estas ver dextras [venas], autumpnus hyems oportet sinistras [incidere]," De conservacione, I.Flebotomia, VII, in MS VAp 1174, fol.19r.

See also above, on Bernard's use of Salernitan verses.

173. Bernard admitted that, "cum fuissem sedulus inquisitor ...numquam potui aliquem curare" in case of acute hernia, Lilium, VII.7, in MS BM Harl.3698, fol.91v.

With regard to a hematological disease, Bernard claimed that "investigacione huius coloris [sanguinis] fui sedulus inquisitor apud flebotomatores," De conserva-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

cione, I.Flebotomia, IX, in MS VAp 1174, fol.20v. Bernard also quoted Galen, "Dilexi veritatis scienciam investigare, credens nullum melius posse adiuvari in mundo et magis proximus fieri Deo," ibid., II.De urinis, Prologue, fol.26v (incipit).

174. "Ars est finitum infinitatis compendium," ibid., III. De pulsibus, fol.52r. This thought, which Bernard may have borrowed from another author, seems inspired by the famous Hippocratic maxim, "Life is short, and the Art long," which opens the Aphorisms, in The Theory and Practice of Medicine, ed. Kelly, p.292.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

CONCLUSION

BERNARD'S PLACE IN THE MONTPELLIER ACADEMIC TRADITION

The Montpellier academic tradition combined the enduring Greco-Roman legacy, the stimulating Judeo-Arabic influences, the contributions of the contemporary Western schools, and the dynamic native elements. The diversity of that tradition is documented not only in the background and genesis of Montpellier's earliest schools, but also in the curricula of the faculties and in the writings of the masters.

The richness and complexity of Montpellier's tradition are eminently demonstrated in the career and writings of master Bernard de Gordon. Although there is no specific information about his educational background, it is evident that he was proficient in the liberal arts, those of the trivium as well as those of the quadrivium. He had perhaps acquired that proficiency in the course of his medical schooling, since there was not yet a clear separation between the arts and medicine at Montpellier in the thirteenth century. In spite of the absence of biographical

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

data on Bernard, we may assume that his writings convey a true picture of the academic orientation of Montpellier around 1300. His career, which spanned the most glorious decades in the history of the Faculty of Medicine, differed from the more prestigious careers of his colleagues who served as physicians to bishops and lords, popes and kings. Bernard's professional life was centered in Montpellier itself. And because he probably did not hold any administrative office in the University, he was able to devote his entire time and energy to the teaching, writing, and practice of medicine in that city.

The above three aspects of Bernard's endeavor were clearly interwoven and beneficial to one another. He wrote on several of the authoritative treatises that apparently constituted the substance of his lectures, especially on the Hippocratic and Galenic works listed in the Montpellier medical curriculum. He also composed elaborate practical guides, such as the Lilium medicine and the De conservacione vite humane, for the students and for young practitioners. In addition, he explored more difficult and possibly extracurricular topics in his writings for the more advanced members of the medical profession. Among these were his tracts on medicinal degrees, on theriac, and on marasmus. Bernard's treatises, as well as his career, thus covered

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

both the theory and practice of medicine. And these also remained united in the medical curriculum at Montpellier and in the treatises emanating from that studium. Hence, the development of so-called scholastic medicine should not be interpreted as a shift from practice to theory, but rather as an elaboration of the theoretical part of medical teaching to accommodate the growing legacy of medical authorities and texts.

The increase and probably greater availability of such works at Montpellier in the thirteenth and fourteenth centuries are also reflected in the increasing frequency of Bernard's explicit references to traditional authorities. However, his eclectic and critical use of these sources indicates that his respect for tradition had not yet deteriorated or solidified into rigid dogmatism. Among his authorities he gave a predominant place to Hippocrates and Galen, both of whom received prominence in the Montpellier curriculum and in the writings of the masters. The central place of the Hippocratic-Galenic tradition, together with the lasting influence of Salerno, should serve to alert historians to the need for caution towards an exaggerated emphasis on the Arabic element, however important.

There seems to have been uneven development in the other aspects of medical scholasticism. This may be seen,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

for example, in the attempts of Bernard and his contemporaries to organize the subject matter logically: these attempts were neither sustained nor always successful. Also the use of dialectical argumentation and the investigation of philosophical problems do not appear to have been as extensive at Montpellier as elsewhere. Although Bernard and his colleagues did engage in some discussion of subjects of natural philosophy, they failed to reach a very high level of abstraction.

This weakness in dealing with abstractions did, however, highlight the fact that Montpellier masters in general, and Bernard in particular, did not lose sight of the practical purpose of their studies and teaching. In the University, actual experience in the practice of medicine was not only an important part of the masters' functioning career, it was also an essential and integral part of the students' training. Both the actual treatment of patients and the preservation of health were Bernard's fundamental concerns, as expressed in his writings. He considered experience at least as necessary, or indeed more so, than booklearning. In his own career of teaching and practice Bernard de Gordon, in the true spirit of Hippocratic medicine, took care to observe and to cultivate nature and natural processes, since the physician is indeed "the servant of Nature."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

APPENDIX ONE

AUTHORS AND WORKS ASSOCIATED WITH MONTPELLIER: TWELFTH THROUGH FOURTEENTH CENTURY

The following alphabetical list was compiled as a tool for further research and as a further illustration of the diversity that characterized the Montpellier academic tradition. The list draws on several sources, complete references to which will be found in the bibliography at the end of this study. A starting point was found in the survey by Pierre Pansier, "Les maîtres de la Faculté de médecine de Montpellier au Moyen Age," Janus, IX (1904), referred to in this appendix as P. However, Pansier listed 273 masters, a great number of whom did not leave any writings; moreover, his list of works is rather sketchy, and he included several individuals whose connection with Montpellier cannot be documented. Therefore, listed below are only those authors whose ties with Montpellier were verified by Ernest Wickersheimer, Dictionnaire biographique des médecins en France au Moyen Age (abbreviated as W, without page reference since the Dictionnaire lists the authors alphabetically). To the works listed by both

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Pansier and Wickersheimer, several were added thanks to more recent research, for example that of George Sarton, Introduction to the History of Science (abbreviated S), and especially thanks to such careful library investigations as those of Lynn Thorndike and Pearl Kibre, A Catalogue of Incipits (abbreviated TK, the addenda and corrigenda abbreviated TKa). References to the latter work will give the column number only when the listed writings could not readily be traced through the index of the Catalogue. In the last column of this appendix will be indicated an occasional manuscript of interest or the modern edition of an individual work, as well as further references, when appropriate: such references, found here in abridged form, are given in full in the bibliography.

The list below contains both medical and non-medical authors, associated with Montpellier in the period, although for the non-medical authors and writings no claims can be made to completeness. Included, furthermore, are scholars and translators who, though probably not connected with the University, wrote in Montpellier and thereby may have influenced or have been influenced by the scholarly community there. Omitted, on the other hand, are some authors, such as Petrarch, who at one time studied at Montpellier, but whose writings appear to have little or no bearing on the Montpellier academic tradition.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

SYMBOLS and ABBREVIATIONS (besides those noted at the beginning of this study)

(?) after the author's name, or instead of dates, or after a title, signifies that there are doubts about, respectively, the author's association with Montpellier, his biographical dates, or the authorship of the particular work.

\+ further works by the same author, not listed here.

* MS or edition consulted for this study.

** Microfilm or photostat in my possession or in that of Professor Pearl Kibre.

AHDL Archives d'histoire doctrinale et littéraire du Moyen Age.

Baumel Jean Baumel, Histoire d'une Seigneurie du Midi de la France; Naissance de Montpellier (Montpellier, 1969).

BSFHM Bulletin de la Société française d'histoire de la médecine

Cart. Cartulaire de l'Université de Montpellier, vol.I. Followed by the page number and, in parentheses, the date of the document in which the given author is mentioned.

CIHM Congrès International d'histoire de la médecine

CS Collectio Salernitana, ed.Salvatore di Renzi (Naples, 1852-1859), 5 vols.

NE Notices et extraits des manuscrits de la bibliothèque nationale et autres bibliothèques

P Pierre Pansier, "Les Maîtres de la Faculté de médecine de Montpellier au Moyen Age," Janus, IX(1904).

S George Sarton, Introduction to the History of Science

SA Sudhoffs Archiv für Geschichte der Medizin (or, until 1939, Archiv für Geschichte der Medizin und Naturwissenschaften)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

SG Studien zur Geschichte der Medizin

Steinschneider Moritz Steinschneider, Die hebräischen Uebersetzungen des Mittelalters und die Juden als Dolmetscher (Graz, 1956).

T Lynn Thorndike, A History of Magic and Experimental Science (New York, 1960-64), 8 vols.

TK _____ and Pearl Kibre, A Catalogue of Incipits of Mediaeval Scientific Writings in Latin, Augmented and Rev.Ed. (Cambridge, Mass.,1963).

TKa _____, "Additional Addenda et Corrigenda," Speculum, XL (1965), 116-122; and Pearl Kibre, "Further Addenda and Corrigenda...," Speculum, XLIII(1968), 78-114

Talbot C.H.Talbot, Medicine in Medieval England (London, 1967).

Universités Les Universités du Languedoc au XIIIe siècle (Toulouse, 1970).

W Ernest Wickersheimer, Dictionnaire biographique des médecins en France au Moyen Age (Paris, 1936), 2 vols.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ABBA MARI BEN MOSES
(fl.ca.1303-1310)

Sefer minhat genaot ("Offering of Zeal")
(collection of 104 letters
against Maimonidean liberalism) S III,610

ABRAHAM BEN MESHULLAM ABIGDOR
(fl.ca.1370-ca.1400)

Steinschneider
778-785

1378 Tr.(Latin to Hebrew) Arnoldus de Villanova, Medicationis parabole S II,894

1381 Tr.(Latin to Hebrew) Arnoldus de Villanova, "on digestive and purgative drugs" S II,895

Tr.(Latin to Hebrew) Petrus Hispanus, Summule logicales S II,890

AEGIDIUS CORBOLIENSIS or GILLES DE CORBEIL
(ca.1140-1224)

De cognitione infirmitatum et earum remediis per metrum	TK;W	
Comm. or Versus super Antidotario	TK;W	
Hierapigra ad purgandos prelatos	TK;W	ed.(excerpts) C.Viellard (Paris, 1909)
De laudibus et virtutibus compositorum medicaminum	TK;W	*ed.L.Choulant (Leipzig,1826)
De physiognomiis	S II,441	
De pulsibus or (?) De significatione pulsus	TK;W	
De signis et causis febrium	TK;W	
De simplicibus aromaticis (?)	TK	
De urinis	TK;W	*Bruges MS 467, 13 c., fols.62-64 *ed.L.Choulant (Leipzig,1826) tr.(Fr.)C.Viellard (Paris,1903)
Viaticus de signis et sinthomatibus egritudinum	TK;W	*ed.V.Rose (Leipzig,1907)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

AFLATICIUS or AFRADISIUS or ALFACIUS DE MONTEPESSULANO
(12th c.)

Collecta or Liber frorum et regularum	TK;W

ALANUS DE INSULIS or ALAIN DE LILLE or DE MONTEPESSULANO
(d.1202) (Cistercian) S II,383-384

Anticlaudianus de Antirufino sive de officio viri boni et perfecti	ed.R.Bossuat (Paris,1955)
De arte fidei "amantissimo domino suo Willemo...Montispessulani principi"	Baumel,p.182
Contra haereticos dedicated to Guillem VIII	Universités,p.231
Liber in distinctionibus at Montpellier	Universités,p.231
Liber poenitentialis	ed.Longère (Louvain,1965)
De naturis animalium	TK
De planctu naturae	TK tr.D.Moffat (New York,1908)
Regulae de sacra theologia + + + +	ed. PL CCX

ALBERTUS DE MONTEPESSULANO
(?)

De urinis	TK;W

ALPHONSUS CORDUBENSIS
(ca.1350)

Epistola et Regimen de Pestilentia "scriptum in montis [sic] pessulano"	TK *ed.K.Sudhoff SA,III(1909), 222-226

Anatomie, Liber (?)	TK 1166

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ANIANUS, MAGISTER (?) S II,992
(second half 13th c.?)

Compotus manualis	TK	ed.D.E.Smith (Paris,1928)

ANSELMUS JANUENSIS or DE GENOA or DE LA PORTE
(fl.ca.1300) W

Emplastrum	TK	

ARMENGAUDUS or ERMENGARD BLASIUS or BLAISE
(fl.1289-1305) S II,831-832
Cart.209(1289), 214(1290)

Amphorismi	TK;W	
Comm.Antidotarii Nicolai	TK	
Tabula Antidotarii	TK;W	
Tr.Galen, Yconomica	TK;W	ed.Trotz (Dresden,1921)
1283 Tr.Cantica Avicenne cum Averrois commentario	TK;W	
1290 (1299) Tr.Profacius, Super quadrantem [novum]	TK;W	see L.Thorndike Isis,XXVI(1937), 306-309
1294 Tr.Maimonides,Regimen egrorum et sanorum et specialiter de asmate	TK;W	
1299 Tr.Galen, Cognitio propriorum defectuum	TK;W	
1305 (1307) Tr.Maimonides, De medicinis contra venena (at the command of Pope Clement V)	W TK	

ARNALDUS DE VILLANOVA S II,893-900
(ca.1240-1311)
Cart.220, 223, 225(1309)

Listed here are only Arnold's scientific writings, which were printed --*Opera, Lyons, Thomas Murchius, 1504-- with the exclusion of most of the alchemical works attributed to him (for these works see T III,654-678). Question marks indicate those works that are certainly spurious according to Juan A.Paniagua, for whom see the bibliography below. Also see the bibliography for the studies, still important

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

though dated, by Paul Diepgen, Miguel Batllori, Joaquin Carreras y Artau, Réné Verrier, and others. Arnold's religious and medical writings in Catalan have been ed. as Obres Catalanes, Barcelona, 1947, 2 vols.

	De amore heroico	TK	
	Antidotarium	TK	
	Aphorismi (de ingeniis)	TK	*NYAM MS
	De arte cognoscendi venena	TK	
	De aquis laxativis (or?) medicinalibus	TK	
	Astronomia see Introductio		
	Breviarium practice (?)	TK	
	Cautele medicorum (?)	TK	*tr.H.Sigerist, NWU Medical School Quarterly,X(1946), 136-143
	Comm.Avicenna (?) or Nota	W	
	Comm.Galen, De mala complexione	TK	
	Comm.Hippocrates, Aphorismus 'Vita brevis'	TK	
	Comm.Hippocrates, Aphorismus 'In morbis minus'	TK	
	Comm.or Compendium regiminis acutorum [Hippocratis]	TK	
	Comm.in Hortulanum	TK	
	De conceptione	TK	
	De conferentibus et nocentibus	TK	*MS Bruges 468 *MS Bruges 470, a.1275
1307	De confortatione visus	TK	*ed.P.Pansier, Mémoires Académie Vaucluse,III(1903), 1-19
	De conservanda juventute (?)	TK	*tr.J.Drummond(1544), ed.C.Dana (Woodstock,1912)
1298	De considerationibus operis medicine	TK	
	Consilium sive cura febris ethice	TK	
1301	Contra calculum (for Boniface VIII)	TK	
	Contra catarrhum	TK	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	Cure destinate Clementi V	TKa 97-98	
	De dosibus theriacalibus	TK	**see M.McVaugh, SA LVI(1972),113-144
	De epilepsia (?)	TK	
	De esu carnium	TK	
	Experimenta (?)	TK	
	Experimenta or De diversitatum infirmitatum curis		**ed.M.McVaugh (exc) Journal Medieval & Ren.Studies,I (1971),107-118
	De febribus (?)	TK	
	De gradibus or De graduationibus medicinarum	TK	**see M.McVaugh, BHM,XLIII(1969), 397-413
1298	De humido radicali	TK	**see M.McVaugh (typescript)
1298	De improbatione maleficiorum	TK	*ed.P.Diepgen, Archiv Kulturgeschichte,IX(1911), 385-403 ed.D.Grmek, Acta [Yugoslav Academy Arts&Sciences], XLVIII(1958), 217-229
1298	Intentio medicorum	TK	
	Introductio ad judicia astrologie quantum pertinet ad medicum or Introductorium astrologie pro medicis practicantibus	TK	
1298	Introductorius or Medicinalium introductorium speculum	TK	
1298 (1300)	Parabolae medicationis	TK	tr.(German) P.Diepgen (Leipzig,1922) tr.(Spanish) G.del Real (Madrid,1936)
	De parte operativa	TK	
	De phlebotomia (?)	TK	
	De podagra	TK	
	Practica summaria	TK	
	Questiones de compositione lapidis	TK	
1307	Regimen quartane	TK	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	Regimen castra sequentium	--		
	Regimen medicorum	W		
1298	Regimen sanitatis (?)	TK		tr.(French) Héronchel, Gesnerus, I(1944), 117-132
1305	Regimen sanitatis ad regem Aragonum			
	Regimen sanitatis Salernitanum (?)			ed.(with "an ancient tr.") A.Croke (Oxford,1830)
	Remedia contra maleficia	TK		
	De sigillis	TK		
	Signa leprosorum	TK		
1305	De simplicibus medicinis	TK		
	De sterilitate (?)	TK		*ed.K.Sudhoff, SA, VI(1913),380-389
	Tabulae quae medicum informant	TK		
1282	Tr.Albumasar, Albucasis, or Albuzale, De simplicibus medicinis	TK		
1282	Tr.Avicenna, De viribus cordis	TK		
1282	Tr.Galen, De rigore (?)	TK		
1282	Tr.Hippocrates, De lege	TK		
	Tr.Costa ben Luqa, De physicis ligaturis	TK	1200	
	De tremore cordis	TK		
1305	De venenis			
	De vinis	TK		*tr.H.Sigerist (New York,1943)

\+ + + +

BACHELOR OF MONTPELLIER
(?)

	Regimen sanitatis	TK	731	

BARTHOLOMAEUS BRUGENSIS (?)
(fl.1307-1330)
"obtained a medical degree in Montpellier before 1315" — S III,885

	Comm.et questiones super libro Yconomicorum Aristotelis	W		
	Comm. in artem (or Tegni) Galieni	TK;W		
	Comm.in Amphorismos Hippocratis	W		

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Comm.in prognostica Hippocratis	TK;W	
Comm.in Regimen acutorum Hippocratis (?)	S III,885	
Comm.in Aristotelis de inundatione Nili	TK	ed.V.Rose, Pseudoepigraphus (1863), pp.639-640
Comm.in Johannitii Isagogen (?)	TK;W	
Comm.in Philareti de pulsibus	TK	
Comm.in Aristotelis libros physicorum	TK	
Comm.in Theophili de urinis	TK	
Comm.in Avicenne primum librum Canonis	W	
Remedium epidemie	TK;W	ed.K.Sudhoff,SA, V(1912),39-41
Questio de sensu agente	TK;W	

BENVENUTUS GRAPHEUS or GRASSUS DE HIERUSALEM or DE SALERNO (?)
(fl.ca.1150-ca.1200)

De morbis oculorum	TK	
De oculis	TK;W	edd.see TK tr.C.Wood (1929)

BERENGARIUS DE THUMBA
(fl.1332) S III,863

Practica	TK;W	
1332 Questiones super amphorismos Hippocratis "disputate et compilate in Montepessulano"	TK;W	
Regimen contra dolorem capitis in sexagenario	W	
Tr.Addicio Azarami de cibariis infirmorum (?)	W	

BERNARDUS ALBERTI
(fl.1335-1358)
Cart.434(1353)

De febribus	W	
Introductorium in practica pro provectis, theorica (or recepte) super primam fen quarti canonis A Avicenne	TK;W	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

BERNARDUS CALCADELLI
(fl.1260-1272)
Cart.195(1260), 203(1272)

Experimenta W

BERNARDUS ENGARRA or DE HANGARA
(fl.1294)

Dubitata supra libellum de mala complexione diversa [Galeni] TK;W
or (?) Questiones TK 1678, item 9

BERNARDUS DE GORDONIO see Appendix II
(ca.1258-ca.1318)

BERNARDUS HONOFREDI or DE HONFROI
(fl.1299; surgeon)

1299 Tr.Avenzoar, Liber de regimine et conservatione sanitatis (Taisir), with Profatius, at the request of Petrus de Capite Stagno (qq.v.) W

BERNARDUS PROVINCIALIS (or, perhaps, ARELATENSIS)
(fl.ca.1150)

Comm.in Tabulas Salerni de virtutibus et operationibus remediorum simplicium TK;W ed.S.Renzi, CS, V(1859),269-328
Comm.in Practicam Bartholomei Salernitani W

BERNARDUS DE TRILIA or DE LA TREILLE S II,989-990
(ca.1240-1292)
Studium of the Order of Preachers, "one of the earliest Thomists" S II,990

De distinctione esse et essentie S II,990
Questiones de cognitione anime separate a corpore or 18 Questiones TK ed.S.Martin (Toronto,1965)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Questiones de spiritualibus creaturis — S II,990
Questiones super tractatum de sphera antiqua (Sacrobosco) — TK

CANCELLARIUS (see also the following, and see Gilbertus Cancellarius)
(?)

Experimenta — TK 63,366,398; TKa 84,95; W 191 (s.v.Gilbert)

CANCELLARIUS, PARISIENSIS
(?)

Questiones super Tegni Galieni secundum Parisiensem cancellarium Montispessulani — TK 1569

CANCELLARIUS ET MAGISTRI MONTISPESSULANI
(?)

De pestilentia — TK 45

CARDINALIS, MAGISTER
(fl.1240-1260)
Cart.186(1240)

Comm.or Glosule supra librum aphorismorum Hippocratis — TK;W
Comm.or Glosule supra prognostica Hippocratis — TK
Comm.or Scripta supra regimentum acutorum [Hippocratis] — TK
Comm.or Glosule super Tegni Galeni — TK;W
Comm.or Glose super Isagogen Johannitii — TK;W
Comm.or Glosule supra pulsum Philareti — TK
De morbis oculorum — TK;W
Libellus docens purgare quatuor humores — W
Cura pro leprosis — TK;W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Curatio apoplexiae (?) TK 380,1405
"a quodam cardinali"
De accessu medici ad infirmum (?)
"Nicolaus or Magister Cardinalis" TK 971
Experimenta Cancellarii et Cardinalis (?)
"possibly there is some connection with [MS] BN 7056, Experimenta magistri Giberti Cancellarii Montepessulani [sic], or with Wolfenbüttel 3489, 14-15th century, fols. 83-135v, Experimenta magistri cancellarii de Monte Pessulano" T II,803 n.7

See also Gilbertus and Cancellarius

Chirurgia brevis de apostematibus et vulneribus
(?)
Gloss on Roger TK 192 *ed.K.Sudhoff, SG,XI(1918), 265-296
TK 1479

DOCTORES MONTISPESSULANI
(?)

De pestilentia TK 220

ETIENNE see STEPHANUS

G. MARCERII
(ca.1335)

Regimen sanitatis ad intencionem episcopi Sancti Pauli [Trois-Châteaux] or Regimen quod dictaverunt quatuor magistri in medicina in Monte Pessulano W *ed.K.Sudhoff, SA,XIV(1923), 184-186
TK 336
With Gerardus de Solo, Jordanus de Turre, and Raymundus de Moleriis, qq.v.

G. DE MONTE PESSULANO (perhaps GERARDUS DE SOLO, q.v.)
(?)

Comm. or Glose supra Afforismos Ypocratis TK;W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

GERARDUS BITURICENSIS or DE BOURGES, DE BERRI, PARISIENSIS (?)
(12th c.?)

Comm.in Viaticum Constantini	TK;W	*Bruges MS 359, 13-14c,fols. 246r-277va *Bruges MS 467, 13 c., fols. 1ra-49vb *Bruges MS 466, 14 c., fols. 1-125ra

GERARDUS DE MONTEPESSULANO
(?)

Practica medicine or Summa de modo medendi et ordine unde corpus sit purgandum or Giraldina	TK;W	*MS BN 7061, 15c., fols.47r-87v (this MS not in TK)

Perhaps by Gerard of Cremona

GERARDUS DE SOLO or BIERNE or VIERNE
(fl.1335-1371)
Cart.292(1335)

S III,876-877 (as identical with Gerardus Bituricensis)

De clisteribus (?)	S III,877	
Comm.in Aphorismos Hippocratis (? see G.de Montepessulano, above)	S III,877	
Comm.supra primam fen quarti Canonis Avicenne de febribus	TK;W	
Comm.in Ysagogen Johannicii	W	
Comm.or Practica super nono Almansoris Rasis	TK;W	*MS BN 7062,a.1428, fols.32r-261r (this MS not in TK)
Directorium or Introductorium iuvenum, sive de regimine corporis humani in morbis	TK;W	**MS BN 7062,a.1428, fols.1r-31v (this MS not in TK)
Determinationes de situ spiritus et amore hereos	TK;W	
De febribus	TK;W	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

1371 De gradibus W
Modus medendi (?) S III,877
De pestilentia in actu curativo (?) S III,877
Regimen sanitatis TK;W
c.1335 Regimen sanitatis for bishop of St.Paul: see G.Marcerii W
De signis humorum (?) S III,877
De suppositoriis (?) S III,877

GILBERTUS ANGLICUS or DE AQUILA (?)
(fl.ca.1200)

Comm.in Egidii de urinis TK
Compendium medicine or Laurea anglica TK;W *Bruges MS 469,a.1271, fols.1r-244v
*pr.Lyons,Michael de Capella,1510
De febribus (?) TK

GILBERTUS CANCELLARIUS MONTISPESSULANI
(ca.1250 ?)

Experimenta magistri Gilberti Cancellarii Montispessulani TK;W *ed.P.Pansier, Janus,VIII(1903), 20-25

GILBERTUS CARDINALIS (?) see also CANCELLARIUS, CARDINALIS
(?)

Opus magnum et admirabile (alchemy, perhaps identical with the following) TK
Opus magistri Cardinalis de aqua penetrativa or Practica TK 1100,1015,1318

GILBERTUS HAMELINI (?)
(ca.1300-1360)

Recepte W ed.P.Pansier, Janus, XIV(1909), 416

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

GILLES see AEGIDIUS

GREGORIUS (?)
(ca.1300?)

De custodia sanitatis	TK	
or (?) Doctrinale compendium de regimine sanitatis "domino Alberto duci Austrie per quendam medicum de Monte Pessulano directum"	TK;W	ed.C.Ferckel, SA,XI(1919), 1-21 tr.F.Zambrini (Bologna,1865)

GUALTERUS or WALTERUS AGULINUS or GAUTIER AGILON
(fl.1250)

S II,656,784

Compendium or Contenta urinarum	TK;W	*ed.J.Pfeffer (Berlin,1891)
De conferentibus et nocentibus (?)	TK;W	
De dosi medicinarum	TK;W	ed.(Irish version) S.Sheahan (Washington,1938)
De febribus	TK;W	
Glossulae super versus Aegidii ("lost")	S II,656	
De pulsibus	TK;W	
Questiones de generatione (?) (actually by Jean Gautier or Vather)	TK W	*ed.P.Diepgen (Leipzig,1911)
Regimen potionatorum	TK	
De sirupis secundum magistrum Pontium, et secundum Galterum et secundum P[etrum] Lucratoris, cancellarium in Montepesulano This compilation probably contains excerpts from the preceding work.	TK	
Summa medicinalis or Practica	TK;W	*ed.P.Diepgen (Leipzig,1911)

GUALTERUS DE MONTEPESSULANO (probably identical with
(?) GUALTERUS AGULINUS, above)

Dicta de dosi	TK	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

GUILLELMUS ANGLUS see GUILLELMUS GRISAUNT

GUILLELMUS BERNARDI or DE GAILLAC
(fl.1274-1317) (Dominican)

Sermons	S III,459	

GUILLELMUS DE BITERRIS or GAUSBERTI
fl.1300-1320)
Cart.249(1320), 251(1323)

Documentum	W	
Informatio scolaribus suis or Isagoge ad practicam medicine	TK;W	**MS BN 7061,15 c., fols.125r-132v (-126r in TK)

GUILLELMUS DE BRIXIA or DE BRESCIA or DE CANETO or CORVI (?)
(fl.ca.1274-ca.1326) "Aggregator" S II,1087-1088
Cart.220(1309)

Consilia	TK;W	ed.E.Schmidt (Leipzig,1922)
De egritudinibus renum et vesice	TK;W	ed.W.Ziegler (Leipzig,1925)
De febribus	TK;W	
De memoria	W	
De pestilentia (?)	TK;W	
Practica or Aggregator	TK;W	
Practica in cyrurgia	TK;W	
Questiones de tyriaca	TK	**ed.M.McVaugh, SA,LVI(1972), 129-143
De visu et oculo	TK	

GUILLELMUS DE CONGENIS or BURGENSIS
(fl.ca.1215)

Chirurgia	W	ed.J.Pagel (Berlin,1891)
"Modus et consuetudo operandi a quodam discipulo descripti"	TK	*ed.K.Sudhoff SG, XII(1918), 297-384
Recepte	W	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

GUILLELMUS DURANDUS (?)
(ca.1230-1296) "Speculator" see Universités,67

	Repertorium iuris canonici or Breviarium aureum	S II,1127	
1271	Speculum iudiciale	S II,1127-1128	
1286	Rationale divinorum officiorum	S II,1127	

GUILLELMUS GRISAUNT or (?) ANGLUS see W I,245
(fl.1300-1350)

De magnitudine solis	TK	
De motu capitis	TK	

GUILLELMUS MARTINI
(fl.1313-1335)
Cart.229-232(1313),292(1335)

De practica	W	

GUIDO DE CAULIACO or GUY DE CHAULIAC S III, 1687-1695
(fl.1325-1368)

	De astrologia (?)	TK;W	*ed.Ch.Singer (Paris,1922)
1363	Inventorium seu collectorium in parte chirurgicali medicine or Chirurgia magna	TK;W	*ed.E.Nicaise (Paris,1890) **ed.(Middle Engl.) M.Ogden (London,1971)

HENRICUS DE HERMONDAVILLA or DE MONDEVILLE S III,865-873
(fl.1300-1325)

1306	Chirurgia	TK;W	*ed.J.Pagel (Berlin,1892) *tr.E.Nicaise (Paris,1893) *ed.(Old French) A.Bos (Paris, 1897-1898)

HENRICUS MONTISPESSULANI
(early 13th c.) perhaps identical with the following

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

HENRICUS DE GUINTONIA or HENRY OF WINCHESTER
(fl.1240) Talbot,61-63
Cart.186(1240): Chancellor

De naturalibus et medicinalibus — Talbot,61
De phlebotomia — Talbot,61; TK 1142
Summa or Medicinales questiones super Joh.Isagogii [sic] — Talbot,61; TK 1085
De urinis — TK

HEZEKIAH HA-MILIABI or BONENFANT DE MILHAU (?)
(fl.ca.1343?) S III,892-893

Gabriel
"A Hebrew treatise on tertiary fevers, beginning, 'Said Gabriel. I think I must mention what Gordon wrote on this fever which is half of the tertiary fever hemitritean.'" S III,892
1343 Tr.(Hebrew) Arnold de Villanova, Tabula super vita brevis S III,892

HILLEL BEN SAMUEL DE VERONA
(ca.1220-ca.1295) S II,886-887

Tagmule ha-nefesh (Rewards of the Soul),"a philosophical compilation reviewing the opinions of the Greeks, Muslims, Jews, and Christians." S II,886
Comm.on Maimonides'25 fundamental propositions S II,886
Tr.(Latin to Hebrew) De expositione bonitatis purae("the pseudo-Aristotelian Liber de causis in the version made by Gerard of Cremona.") S II,886
Tr.Ali ibn Ridwan, Comm.on Galen's Tegni ("also from Gerard's version") S II,886
Tr.Bruno da Longoburgo, Chirurgia magna (1252) S II,886

ISAAC BEN JUDA DE LATTES
(fl.ca.1305)

"Commentaires talmudiques aussi que... ouvrages d'astronomie et d'histoire naturelle" W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

JACOB BEN JOSEPH HA-LEVI (?) S III,892
(fl.ca.1297-1306)

1297 Tr.(Latin to Hebrew) Arnold de Villanova (?) De paralysi Steinschneider,780
Tr.(Latin to Hebrew) Gualterus Agulinus (?) De venenis Steinschneider,801
+ + + +

JACOB BEN MAKHIR see PROFATIUS

JAIME EL CONQUISTADOR
(1208-1276) S II,1107-1108

Chronicle of Deeds (Catalan) Tr.J.Foster (London,1883)

JOHANNES DE ALESTO or D'ALÈS or DE CAUSANICIS
(fl.1302-1318)
Cart.220,223,225(1309)

Contra noli me tangere (?) TKa
"Johannes medicus regis Aragonis"

JOHANNES ANGLICUS see JOHANNES DE GADDESDEN and JOHANNES DE MONTEPESSULANO

JOHANNES DE AVINIONE see MOYSES BEN SAMUEL

JOHANNES BONONIENSIS or DE BOLOGNA
(ca.1320-1330?)

Tractatus de regimine sanitatis
"dedié à un roi de Hongrie" W

JOHANNES BRITO or (?) BRIXIENSIS or DE BRIXIA
(fl.1240-1263)
Cart.186(1240)

1263 Tr.(with Profatius) al-Zarkali, Liber tabule que nominatur saphea TK 403 S II,831 T III,201 ed.J.Millas-Vallicrosa(Barcelona, 1933)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

JOHANNES FABER or FAURE
(fl.1324-1340) S III,316,989-990

Breviarium (summary of books I to IX of Justinian's Codex) S III,990
Lectura (comm.on the Institutiones) S III,990

JOHANNES DE GADDESDEN or ANGLICUS (?) S III,880-882
(ca.1280-1361)

De aquis	TK;W	
De cibis et potibus (?)	TK	
De oleis	TK;W	
Rosa anglica practica		*pr.Pavia, N.Scilliaco,1492 (Hain 1108)

JOHANNES HAKE or GRIESE DE GÖTTINGEN or DE WESTERHOLT
(fl.1314-1349) S III,887

Cautela a venenis	W	ed.J.Schannat, Vindemiae literariae,I(1723), 211-213
[Recepte] ad preservandum ab epydemia	TK;W	*ed.K.Sudhoff, SA,V(1912), 36-38
[Recepte] contra epidemeam	TK;W	*ed.ibid.,pp.38-39

JOHANNES JACOBI or JACME
(fl.1364-1384) S III,1687-1689
Cart.460(1364),552(1369),602(1378),628(1382),634(1384)

De calculo	TK;W	ed.E.Wickersheimer SA,III(1910), 41-62
De pestilencia	TK;W	ed.A.Barbot (Montpellier,1923) ed.SA,XVII(1925), 16-32 ed.E.Wickersheimer Archivio Storia Scienza,VI(1925), 105-112
Recepte super quarto Canonis Avicenne de febribus	TK;W	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	Recepte de febribus	TK	
	(perhaps same as preceding)		
1378	Secretarium practice medicine	TK	
	"à la demande du roi Char-		
(1379)	les V"	W	
	De sterilitate	TK;W	
	Tr.(Catalan) Alcoatin, Libre de la figure del uyl	W	ed.L.Deztani (Barcelona,1933)
	Tr.(Catalan) Letre que Galien trames a Coris el maestre de les malalties dels uyls e de les cures	W	tr.(Latin version) Collectio ophthalmologica veterum auctorum, VII(1933),211ff.
	Tractatus ad anathomiam compositionem oculorum intelligendam (?)	W	ed. ibid.

JOHANNES DE MEDIOLANO or OF MILAN
(fl.1313 ?)
Cart.231(1313)(?) "beginning of the 12th c.," S II,434

De phlebotomia	TK	ed.&tr.F.Packard (New York,1920)
Regimen sanitatis Salernitanum or Flos medicine schole Salerni (?)	TK;W	*ed.S.Renzi,CS, I(1852),445-516 and V(1859),1-104

JOHANNES DE MONTEPESSULANO (see also JOHANNES STEPHANI and JOHANNES DE GADDESDEN)
(13th c.?)

Ars medicinarum laxativarum or De dosibus medicinarum	TK	
De medicinis digestivis et evacuativis (? this is probably the Practicella of John of Parma)	TK;W	ed.M.Mehner (Leipzig,1918)
Tractatus quadrantis or (?)	TK 425	
Quadrans vetus	TK 585	see T II,96
Quadrans modernus (?) ("John of London or Montpellier")	TK 1407	

JOHANNES DE SANCTO AEGIDIO or DE SAINT GILLES (?)
(fl.1222) Talbot,82

Experimenta	TK 1509
Recepte	W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

JOHANNES DE SANCTO PAULO (?)
(12th c.)

Breviarium medicine or Practica de signis, causis, et curis morborum	TK;W	ed.(excerpts) V.Rose, Handschriften-Verzeichnisse ...Berlin, XIII (1905), 1342-1343
De carnibus	TK	
Comm.tabule Ricardi	TK	
Diete particulares	TK	
Flores dietarum (? also attributed to Arnold of Villanova and to Bernard de Gordon)	TK;W	ed.H.Ostermuth (Leipzig, 1919)
De simplicium medicinarum virtutibus	TK;W	ed.G.Kroemer (Leipzig, 1920)

JOHANNES STEPHANI (?)
(?)

Ars medicinarum laxativarum or De dosibus medicinarum (? see also Johannes de Montepessulano)	TK;W	ed.SA, XI(1919)
Cure cardinales	TK;W	
De febribus	TK;W	
Praxis medicine, secunda pars de malignis a pestilentibus febribus ut et de peste	W	
Secreta	W	

JOHANNES DE TORNAMIRA or DE TOURNEMIRE
(ca.1330-ca.1390)
Cart.461(1364),552(1369),634(1384)

See P.Pansier Monspeliensis Hippocrates, XLII (1968), 5-12

Comm.Galen, De interioribus (?)	W	
1365 Comm.or Clarificatorium super nono Almansoris Rasis	TK;W	
De febribus	TK;W	
1369 De ingenio sanitatis	W	
Introductorium seu ad practicam medicine isagogicus libellus or Breve compendium de neutralitatibus decidentie		see*E.M.Kollert, Zwei Compendien (Leipzig, 1924)
Observatio "sur la maladie de sa fille"	W	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	Parva practica "quam fecit pro quodam bachalario eunti ad practicam"	TK	*MS BN 7061,15 c., fols.1r-5v
	De pestilentia	TK;W	
1373	Regimen sanitatis ad cardinalem quemdam	TK;W	

JOHANNES DE TURRE or DE LA TOUR
(fl.ca.1335)
Cart.292(1335)

	Additio circa ardorem urine	TK	

JORDANUS DE TURRE or DE LA TOUR (probably the father of the preceding)
(fl.1313-1335)
Cart.229,232(1313),238(1319),249(1320)

	De adinventione graduum in medicinis simplicibus et compositis	TK;W	
	Circa capitulum de remediatione fluxus superflui sanguinis quod Avicenna docet	TK	
	De clysteribus	W	
	Compendium de urinis	TK;W	
	Cura hydropisis	TK;W	
	De experimentis	W	
	De febribus (? perhaps by Gerardus de Solo)	TK;W	
	De mulierum impregnatione (? perhaps by Raymundus de Moleriis)	TK;W	*MS BN 7066,a.1441, fols.6r-11r
1318	Recepte facte filio suo eunti ad practicam	TK;W	
	Regimen ad curandum epilepticum	W	
c.1335	Regimen sanitatis for bishop of St Paul: see G.Marcerii, above	W	
	De urina	TK;W	
	Viginti signa lepre	TK;W	

LEO HEBREUS or JUDEUS or DE BALNEOLIS or LEVI BEN GERSON (?)
(fl.1319-1344)
see T III,305

	Astronomia	TK	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De baculo Jacobi or De instrumento secretorum revelatore — TK; T III,309
1319 Comm.in priora analytica — T III,309
1344 De coniunctione Saturni et Iovis anni 1345 — TK; T III,310
1320 Instrumentum astronomie — TK
"solar and lunar tables for the meridian of Orange" — T III,309
1321 De numeris harmonicis — TK; T III,309
De sinibus, chordis et arcubus — TK

LEO JOSEPH (?)
(fl.ca.1400)

Tr.(Latin to Hebrew) Bernard de Gordon, Lilium medicine — W
_____, Bernard de Gordon, Liber pronosticorum — W
_____, Gerard de Solo, Introductorium iuvenum — W
_____, Hippocrates, Astronomia medici — W
_____, Johannes de Tornamira, De urinis — W
_____, Johannes de Tornamira, Clarificatorium — S III,1697

LEVI BEN ABRAHAM BEN HAYYIM
(ca.1250-ca.1315) — S II,885

1276 Batte ha-nefesh weha-lehashim
"deals with ethics, logic, astronomy and astrology, physics, metaphysics,etc." — S II,885
1276 Sefer ha-tekunah
"a treatise on astronomy and astrology" — S II,885
Liwyat hen or Sefer ha-kolel
"containing six treatises dealing respectively with logic or arithmetic, geometry, astronomy and astrology, physics and physiology, metaphysics, theology and prophecy" — S II,885

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

MAGISTRI MONTISPESSULANI
(?)

Questiones magistrorum Montis-pessulani — TK 1656

MATTHEUS SALERNUS or (?) MATTHEUS SALOMON
(12th c.)

De pulsibus (?) — TK

MICHAEL BOETUS
(?)

Pest tract "in Montpellier" — TK 57 — ed. SA, XVII(1925) 46-51

MOYSES BEN SAMUEL or JOHANNES DE AVINIONE (?)
(fl.1360)

1360 Tr.(Latin to Hebrew) Bernard de Gordon, Lilium medicine — W

MOYSES BEN SAMUEL IBN TIBBON
(fl.1252-1272)

"Biblical and Talmudic commentaries" — S II,847
Tr.(Arabic to Hebrew) 30 works on philosophy and theology, on mathematics and astronomy, on mechanics and physics, and on medicine — S II,847-850

NATHAN of MONTPELLIER or (?) BEN JOEL FALAQUERA
(13th c.) — S II,1096-1097

"Maître de l'auteur de l'ouvrage médical hébreu, Le Livre de la droiture" — W
Treatise on celestial spheres (?) — S II,1097
Zori haguf (Balsam for the pains of the body): "a very large Hebrew collection of medical quotations" — S II,1097

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

NICHOLAS DE BODBYS or DE BODLYS DE MONTEPESSULANO
(?) S II,1092
(perhaps identical with NICHOLAS DE POLONIA, q.v.) T II,769

Experimentum TK

NICHOLAS COLVE or COLNE DE SAXONIA
(fl.1383-1414)

His doctrina was the object of a critique W
1428 by Jean Gerson, Tractatus adversus doctrinam cujusdam phisici delati a Montispessulano sculpentis numismate figuram leonis cum certis caracteribus pro curacione doloris renum TK

NICHOLAS DE POLONIA or DE BOHEMIA DE MONTEPESSULANO
(fl.ca.1275) S II,1092-93
See S.Szpilczynski, XVIe GIHM (Montpellier,1958),pp. 30-31

Antipocras	TK;W	**ed.K.Sudhoff, SA, IX(1916),31-52 ed.H.Diels, Sitzungsberichte preuss.Akad.Wiss. (1916),376-394
Experimenta (see also Nicholas de Bodbys, above)	TK;W	*ed.J.Johnsson, BSFHM,X(1911), 269-290
Recepte,or Ein hübsch Cyrurgia die do bewert ist von Meister Nicklas von Monpolir		ed.(together with the two preceding tracts) R.Ganszyniec (Poznan, 1920)

OLDRADO DA PONTE or DA LODI
(fl.1300-1335) S III,313, 981-982

Lessons concerning the Infortiatum (middle section of Justinian's Pandects)	S III,981
Consilium on sortileges "at the beginning of which he gives his opinion of alchemy"	S III,981
Other consilia (legal)	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

PETRUS ALBI DE MONTEPESSULANO or PIERRE BLANC
(fl.ca.1337)

Recepte super quarto canone Avicenne de febribus — TK

1337 Reportationes on Isaac's Diets, from Gerard de Solo — TK 31

PETRUS BORELLI DE CAPITESTAGNO or DE CAPESTANG or CAPISCAINE
(fl.1299-1330)

Cart.232(1313) — S II,1091

Cura contra dispositionem ad paralisim — TK;W — *ed.E.Wickersheimer, BSFHM,XVIII(1924), 103-106

Questiones super Ypocratis de regimine acutorum — TK;W

Recepte — W

1299 Requested Bernardus de Honofredi and Profatius (qq.v.) to tr. Avenzoar's Taisir

PETRUS GUAZANHAIRE
(fl.1260)

Cart.195(1260)

Nota de paralysi (?) — W

PETRUS JACOBI or JACME
(fl.ca.1330 ?)

Practica aurea (law) — see Universités,214

PETRUS LUCRATORIS
(fl.1240)

Cart.186;190(1240)

Item expertum valde — TK

Secreta — W

De sirupis (see Gualterus Agulinus) — TK;W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

PETRUS DE NADILLIS or DE NADILZ
(fl.1370-1375)

De impregnatione mulierum	TK;W	*MS BN 7066,15 c., fols.13r-20v

PETRUS PLACENTINUS see PLACENTINUS

PETRUS VITALIS or VIDAL
(fl.1318) (Dominican) S III,657

1318 Novum kalendarium drawn up at Montpellier and dedicated to Pope John XXII (r.1316-1324)	TK;..	see P.Meyer, Romania,XXVI (1897),236-237, on *MS BN 7420A, ca.1332,fols.101-108

PLACENTINUS
(ca.1135-1192)

Prooemium summae Summa codicis	S II,465	see Baumel,177-181 ed.G.Pescatore (Greifswald,1897)
Summa institutionum exordium	S II,465	

PONCIUS PROVINCIALIS or DE PROVENCE
(fl.1240-1252)

Summa de dictamine		see L.Paetow, The Arts Course (1910),89-91

PONCIUS DE SANCTO AEGIDIO or DE SAINT GILLES (?)
(13th c.)

Practica seu cure or Modus medendi	TK;W	
Liber secretorum contra morbos chronicos (?)	W	
De medicamentis conficiendis (?)	W	
De sirupis (see Gualterus Agulinus)	TK;W	

PRACTICUS MONTISPESSULANUS
(fl.1349)

De epidemia	TK 566	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

PROFACIUS JUDEUS or HEBREUS or MARCILIENSIS or JACOB BEN MAKHIR or PROFET TIBBON (ca.1236-ca.1305) (Leader of the Maimonideans at Montpellier)

See T III, 191-204, 694-698

S II,850-3

	Almanach sive tabule for the longitude of Montpellier, and beginning 1 March 1300 (1301)	TK S II,850	*MS BN 7408A,14c., fols.2v-11r ed.Boffito e Melzi d'Eril (Florence,1908)
	De armillis "written in Montpellier at the request of Bernard Gordon"	TK	*MS BN 7295A, 14 c.,fols. 35r-40v
	De aspectibus lune	TK	*MS Bruges 523, 14 c.,fols. 26v-28v *MS Ghent 5(416), 14 c.,fols. 152r-154r
1293	Quadrans novus "composed a.1288 and corrected 1301"	W TK	*MS Bruges 523, 13-14 c.,fols. 46r-62r ed.B.e M.d'Eril (Florence,1922)
c.1255	Tr.Euclid, Elements	S II,851	
1256	Tr.Costa ben Luqa (?), Practica sphere solide	TK	
1263	Tr.Al Zarkali, Safiha or Saphea (with assistance of Johannes Brixiensis or Brito, q.v.)	TK	ed.J.Millas-Vallicrosa (Barcelona,1933) see E.Poulle, Studii medioevali, X (1970),491-510
1299	Tr.Avenzoar, Regimen sanitatis (Taisir) (with assistance of Bernardus de Honofredi, at the request of Petrus de Capitestagno, qq.v.)	TK;W	
1302	Tr.Averroes, Commentaries on Aristotelian zoology	S II,852	
	De utraque eclipsi	TK	

+ + + +

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Quest[iones] supra tractatum de spera in Montepessulano
A.D.1267 — TK 1671, item 3 (and see TK 1674, item 5)

(perhaps by Bernardus de Trilia, q.v.?)

RADULPHUS DE LONGO CAMPO
(fl.ca.1220)

Comm.Alanus de Insulis, Anti-claudianus — see R.Bossuat,ed., Anticlaudianus (Paris,1955),p.43

Summa philosophiae — TK

RAYMUNDUS DE BEDERS
(?) (perhaps identical with the following, Raymundus de Biterris)
Comm.Aristotle, Meteorologica — TK 418

RAYMUNDUS DE BITERRIS or DE BÉZIERS
(fl.ca.1285-1313)

Tr.(from Castilian into Latin) Liber de Dina et Calila or Kalila wa-Dimna (animal fables) — P 7; S III,464

RAYMUNDUS LULLUS or RAMON LULL
(ca.1235-1315)

Of all the authors, associated with Montpellier, Lull was by far the most peripatetic, versatile, and prolific. Rather than reproduce the 313 works, attributed to him in the HL, XXIX (1885), 1-386, or the 178 titles found under his name in TK, the list below contains only the Lullian writings presumably composed in Montpellier (sections 1-3 below, arranged chronologically), and those pertaining to medicine (section 4, arranged alphabetically). It may be noted that the alchemical works, once attributed to Lull, are now generally considered apocryphal.

Valuable surveys of Lull's writings are found in S II,900-914 and in T II,862-873. More recent bibliographical information is supplied in the critical collection, Obres essencials; Estudios Lulianos (Barcelona,1957-60, 2 vols.) and in the studies by Miguel Batllori, Armando Llinares, and others (see bibliography below).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

General editions, intended to be both more complete and more scholarly than that by Ivo Salzinger, Lulli Opera Omnia (Mainz,1721-42, 10 vols.), are still in progress. Thus, there are the Obres de Ramon Llull, ed.by the Commissio editora luliana (Palma de Mallorca, 1906-, 21 vols.thus far), and the Opera Latina Raymundi Lulli (Barcelona, 1959-).

1. Ars magna and logic:

1283	Ars demonstrativa	S II,902	
1287	Questiones per artem demonstrativam seu inventivam solubiles	S II,902	
1289	Ars inventiva veritatis	S II,902	
1290	Ars amativa boni	S II,902	
1290	Compendium logice Algazelis	S II,902	
1304	Ars generalis ad omnes scientias	S II,903	
1305	Introductorium magne artis generalis	S II,903	
1307	Ars brevis que est de inventione mediorum juris	S II,903	

2. Education

1275	Libre del orde de cavayleria or De militia	S II,905	
1275	Doctrina pueril	S II,905	
1283	Libre de prima i segona entencio or De prima et secunda intencione	S II,906	

3. Religion (theology, philosophy, devotion)

1272	Debsancto spiritu	S II,904	
1283	Blanquerna	S II,906	tr.E.A.Peers (London,1926)
1283	Libre d'amic e amat	S II,906	tr.E.A.Peers (London,1923)
1283	Art de contemplació	S II,906	tr.E.A.Peers (London,1925)
1303	Disputatio fidei et intellectus	S II,908	
1304	De convenientia fidei et intellectus in objecto	S II,908	
1304	De ascensu et descensu intellectus	S II,908	
1304	De demonstratione per equiparantiam	S II,905	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

1305 Liber de fine in quo traditur modus et doctrina quo possunt omnes infideles ad fidei catholici [sic] veritatem breviter reduci, et Terra Sancta e manibus infidelium recuperari S II,904

1309 De acquisitione Terre Sancte S II,904

4. Medicine and related sciences

Arbor scientie TK
Ars compendiosa medicine TK;W;S II,909
Compendium de secretis medicinis TK
De conservatione vite humane TK
Experimenta TK
De gradibus magne medicine TK
1293 De levitate et ponderositate elementorum or -principiorum or Tractatus medicus S II,909
TK;W
1303 De lumine S II,909
De medicina et astronomia TK T II,871
De memoria TK
De modo applicandi novam logicam ad scientiam juris et medicine TK;W;S II,909
De multiplicatione TKa 97
Practica medicinalis TK
De principiis medicine TK;W;S II,909
1303 De regionibus sanitatis et infirmitatis TK;W;S II,909

RAYMUNDUS DE MOLERIIS or DE MOLIÈRES (fl.1335 : Chancellor) see S III,878-879
Cart.292(1335)

Cura quartane ventris, tinearum, quotidiane, remedia contra ficum, contra obscuritatem visus et maculam in oculis... W
c.1335 Regimen sanitatis for bishop of St Paul (see G.Marcerii) W
De sterilitate (often attributed to Arnold de Villanova)
Part I.De sterilitate mulierum TK *ed.W.Arlt and J.Pagel, Janus,VIII (1903),530-537
Part II.De impedimentis conceptionis ex parte viri TK;W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Regimen sanitatis
(a.1281) TK 313,item 13

REGINALDUS or REGNAULT DE MONTEPESSULANO
(?)

Summa de flebotomia TK;W

RICARDUS ANGLICUS or DE MONTEPESSULANO or PARISIENSIS
(fl.ca.1280) or SALERNI (not to be confused with Ricardus de Wendovere, who d.1252)

De clisteribus mundificativis (perhaps treatise 4 of the Micrologus below) TK

Comm.in Hippocratis Aphorismos (? by Magister Cardinalis, q.v.) TK

Comm.in Isaac (?) W

Comm.or Glossule in Johannitium (? by Magister Cardinalis, q.v.) TK;W

De criticis diebus (?) TK

De flebotomia (?) W

Micrologus, consisting of 5 treatises: W ed.H.Seyffert (Leipzig,1924)

1. De causis,signis,et curis passionum or Practica or Compendium TK;W;Talbot,58-59 ed.(excerpts) E.Frers (Leipzig,1934)

2. De urinis or Regula urinarum TK;W

3. Anathomia TK;W ed.K.Sudhoff, SA,XIX(1927), 209-239

4. De medicinis or De repressivis TK;W

5. Signa pronostica or De signis febrium TK;W ed.(part) H.Beusing (Leipzig,1922)

De ornatu or De decoratione (? also attributed to Arnold de Villanova) TK;W

De pulsibus (?) TK;W ed.A.Hesse (Leipzig,1922)

Tractatus febrium et aliarum passionum diversarum (?) W

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

RIGORDUS (?)
(fl.ca.1180-1190)

Gesta Philippi Augusti	P 99	

ROBERTUS ANGLICUS DE MONTEPESSULANO
(fl.ca.1271) — see S II,993-994

De astrolabio canones (or by Robert of Chester)	TK;S II,993 TK 331	
1271 Comm.Sacrobosco, De sphaera	TK;S II,994	ed.and tr. L.Thorndike (Chicago,1949)
1276 Tractatus quadrantis	T II,437	
Quadrans vetus (? also ascribed to Johannes Anglicus de Montepessulano, q.v.)	TK;S II,993	ed.P.Tannery NE,XXXV(1897), 561-640
Tr.Thebit ben Corat, De proportionibus (?)	TK	

ROGERIUS (?)
(d.ca.1165)

Summa codicis (completed by Placentinus, q.v.)		see Baumel,179-181

ROGERIUS DE BARONE
(fl.ca.1260)

Practica or Rogerina in 4 treatises, of which the first 3 comprise the	TK;W	*MS Bruges 470,13 c., fols.41r-94r
Rogerina maior and the last one appears as the	TK;W	
Rogerina minor or -parva	TK;W	
Questiones	TK	

Rosarius alkimicus Montispessulani
(?) — TK 831; T III,56

SCHEM TOB BEN ISAAC or SHEMTOV BEN JIZCHAQ
(1196-ca.1265)

1254 Tr.(Arabic to Hebrew) Albucasis, Tasrif (Liber practicae)	W	see S.Muntner,XVIe CIHM (Montpellier, 1958),p.21

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

1264 Tr.(Arabic to Hebrew) Rasis, Ad Almansorem W
+ + + (tr.of non-medical works) W

SIMON DE COVINO or DE COUVIN (?)
(ca.1300-1367) see S III,886-887

1350 De iudicio solis in convivio Saturni TK;W ed.E.Littré, Bibliothèque Ecole des Chartes,II (1840),201-208

SIMON JANUENSIS or A CORDO or DE GENOA (?)
(fl.ca.1285-1295) see S II,1085

1292 Clavis sanationis or Synonyma medicine TK;W
Tr.(Hebrew to Latin) Albucasis, Liber servitoris de preparacione medicinarum simplicium TK;W
Tr.(Hebrew to Latin) Serapion, Liber aggregatus in medicinis simplicibus TK;W

SOLOMON BEN MOSES OF MELGUEIL (MAUGUIO) (?)
(fl.second half 13th c.?) see S II,858

Comm.on the Books of Kings (?) S II,858
Tr.(Latin to Hebrew) anon.comm. on Aristotle's De somno et vigilia (?) S II,858
Tr.Avicenna, Summary of Aristotle's De coelo et mundo (?) S II,858
Tr.Platearius, Circa instans (?) S II,858
Tr.fragment of Averroes, Metaphysics S II,858

STEPHANUS ARLANDI or (?) ACHESIS
(fl.1319: Vice-chancellor) see S III,426-7
Cart.236(1319)

Annotationes in Anatomiam Mundini (?) S III,426
On cataract (?) S III,426
Defensorium vitae (? also ascribed to Arnold de Villanova) S III,426
Dietarium or(?) tr.Costa ben Luqa, Dietarium W
S III,426

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

	De dosibus medicinarum (?) (see Johannes Stephani)	TK	ed.SA,XI(1919)
	De evacuatione	W	
	Experimenta	W	
	De febribus	W	
	De flebotomia (? also ascribed to Arnold de Villanova)	W S III,426	
	Prognosticationes	W	
	Recepta contra surditatem	W	
	Regimentum contra defectum coitus (?)	S III,426	
	Tr.Costa ben Luqa, De sphera solida (from the Hebrew tr. tr.by Profatius, q.v.)	TK;W	
	Tr.Costa ben Luqa, De sphera volubili	TK	
	Viridarium or Expositio Antidotarii Nicolai		see J.Blake, Journal History Medicine,XXV (1970),480

VITALIS DE FURNO or DU FOUR
(fl.1295-1327) (Franciscan)

	Comm.on Peter Lombard, Libri IV sententiarum	S III,531	
	Postilla supra Apocalipsim	S III,531	
	Pro conservanda sanitate, tuendaque prospera valetudine, ad totius humani corporis morbos et egritudines, salutarium remediorum, curationumque liber utilissimus (?)	S III,531	
	Quodlibeta theologica	TK;W S III,531	
c.1305	Speculum morale totius Sacre Scripture	S III,531	
	+ + +		see HL,XXXVI(1927), 295-305,647-652

VIXINANDRUS MALRIN
(fl.ca.1325)

	Course on Galen	W	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

YEDAYAH BEDERSI
(fl.ca.1270-1340)

Comm.Averroes, Logic — S III,594
Comm.Averroes, Physics — S III,594
Comm.Avicenna, Canon — W
c.1287 Sefer ha-pardes (Book of Paradise) — S III,593
c.1305 Iggeret hitnazzelut "defense of Maimonides, that is...of positive science and moderate liberalism against Talmudic orthodoxy" — S III,593

+ + +

see HL,XXXI(1897), 392

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

APPENDIX TWO

MANUSCRIPTS AND PRINTED EDITIONS OF WORKS COMPOSED BY OR ATTRIBUTED TO BERNARD

The following list of Gordoniana is appended not only in order to illustrate the renown of Bernard but also with the intention to share the results of extensive research with other interested students. The appendix combines the items listed in the bibliographical studies on Bernard by von Töply, Sudhoff, Bell, O'Neill, Herndon, and Winau, with those found in reference works such as Lynn Thorndike and Pearl Kibre's Catalogue of Incipits and Ernest Wickersheimer's Dictionnaire biographique, or those mentioned in sundry articles, and also those communicated by thoughtful researchers. As a preliminary balance sheet, however, the list is neither final nor complete. Thus, many libraries that undoubtedly possess Gordoniana, have not yet been investigated; and references to several items listed have not yet been checked in library catalogues. On the other hand, it might have been useful to give, where known, the provenance of the manuscripts, but this would have made the appendix disproportionately long.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The works are arranged alphabetically, according to the first important word of their title, thereby ignoring such terms as Capitulum, Liber, Tractatus, and so on. The title of each work is followed by the incipit, if known. Listed for each work are, first, the manuscripts, alphabetically according to the place where they are found, and chronologically for holdings of the same library. Next follow the fragments, arranged according to the part of the work that they comprise. Third come the printed editions, listed chronologically. Then are listed the translations, arranged alphabetically according to language. Finally, an occasional commentary on a Gordonian work is included, although this category has not been systematically researched. The items are numbered in order to facilitate cross references.

SYMBOLS and ABBREVIATIONS (besides those noted at the beginning of this study)

(?)	signifies the doubtful authenticity of a work attributed to Bernard
*	MS or edition consulted for this study
**	Microfilm or photostat in my possession or in that of Professor Pearl Kibre
Bell	H.I.Bell, "The Bibliography of Bernard de Gordon's 'De conservatione vitae humanae'," XVIIth International Congress of Medicine (London,1913).
Hansen	communicated by Dr.Bert Hansen, Fordham University

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Herndon Thomas Herndon, "Bernard Gordon Manuscripts in the United States," Bulletin of the History of Medicine, XXXIV (1960).

Kibre communicated by Professor Pearl Kibre, C.U.N.Y.

McVaugh communicated by Professor Michael McVaugh, University of North Carolina, Chapel Hill

O'Neill Ynez V.O'Neill, "Dates in the Printed Editions of the Lilium Medicinae," Sudhoffs Archiv, XLIX (1965), 86-89; and "The History of the Publication of Bernard of Gordon's Liber de Conservatione Vitae Humanae," ibid., 269-279.

NYAM New York Academy of Medicine

P(1904) Pierre Pansier, "Les maîtres de la Faculté de médecine de Montpellier au Moyen Age," Janus, IX(1904).

P(1908) _____, "Catalogue des MSS médicaux de
P(1909) France," Archiv für Geschichte der Medizin, I(1908) and II(1909).

S George Sarton, Introduction to the History of Science.

SA Sudhoffs Archiv or Archiv für Geschichte der Medizin

Stein Moritz Steinschneider, Die hebräischen Uebersetzungen des Mittelalters.

Sud Karl Sudhoff, "Zur Schriftstellerei Bernhards von Gordon und deren zeitlicher Folge; eine Handschriftenstudie," SA, X(1917).

Sud(1915) _____, "Das dem Magister Johannes de Conflente gewidmete Regimen Acutarum Aegritudinum des Bernhard von Gordon," Mitteilungen zur Geschichte der Medizin, XIV(1915),93.

Sud(1930) _____, "Mittelalterliche Einzeltexte zur Beulenpest vor ihrem pandemischen Auftreten," in Festgabe Georg Sticker (Berlin, 1930).

T Lynn Thorndike, A History of Magic and Experimental Science.

TK and TKa Lynn Thorndike and Pearl Kibre, A Catalogue of Incipits and Addenda and Corrigenda.

Wick Ernest Wickersheimer, Dictionnaire biographique.

Winau Rolf Winau, "Ein Lilium medicinae-Handschrift aus der Besitz des Nikolaus von Kues," Medizinhistorisches Journal, I(1966).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Antidotarius

"Digestivum. In passionibus frigidis capitis. Recipe..."

1. *BN 6966, a.1461, fols.1r-3r — Wick I,75

This text is identical with the Lilium medicine, VII.21-24

De aquis

"Capitulum de curatione cuiuslibet talis [sic, tabis?]..."

2. Oc 125, [13-15 c.], fols.14r-15v — TK 188

This is probably chapter VI of the De marasmode, q.v. See also Nos. 26 and 86 below.
For the other contents of MS Oc 125, see T II,205,n.2.

Arbor egritudinum

Prol."Grata laboranti labor omnis bravia confert..."
Text "Egritudo morbus seu infirmitas est mala qualitas..."

3. **VAp 1083, 23 April 1458, fols. 308v-319r. — TK 494
"Scriptus et finitus per Johannem [de Büdingen] in preclaro studio Heidelbergensi."

De astronomia medicorum (?)

4. CU 1705 — Wick I,75

Perhaps identical with the Liber pronosticorum, V.7.

Opusculum de Authenticis urinarum [contentis?] compositum (?)

"Urina quinquies distinguitur scilicet ratione..."

5. CUt 500, 15 c., fols.1v-3 — TK 1609

6. BLcm 455, 15 c., fols.239-249 — TK 1609

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Perhaps related to the De conservacione vite, II. De urinis (q.v.), although the above incipit does not occur in the text of the latter work.

De cautelis necessariis medico ad urinas (?)

"Primo pete semper cuius est. Si dicit..."

7. BLcm 455, 15 c., fols.237-239 TK 1109

See No.6 for the treatise that follows this work in MS BLcm 455; also see No.28 below.
For similar incipit, see Nos.9 and 10 below.

De cautelis urinarum (?)

"Prima. Urina hominis cognoscitur quatuor modis.../
...ex melancolia discolorata tenuis."

8. London Wellcome 548, 15 c., fol.48r-v Moorat, Catalogue, I, 412

"Cum urina tibi ad iudicandum fuerit presentata, pete cuius est..."

9. Pr.(with Lilium, q.v.) Ferrara, 1487 TK 350
(Klebs 180.1)

10. *Pr.(with Lilium) Venice, 1498 TK 350
(Klebs 177.5)

De cibis

11. BN 16189 Wick I, 75

Perhaps identical with the De conservacione vite, IV. Regimen sanitatis, XI, which begins, "Nullus debet sumere cibum nisi stomachus sit vacuus..." This same incipit is also found in MS Metz 178, 14 c., fol.12r..... TK 957
and this Metz MS also contains the Lilium medicine (see No.192 below).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Codicillus seu de morbis et eorum curationibus

"Circa omnium egritudinum genera triplex..."

Wick I,75

12. Os 197, 14-15 c., fols.127r-255v TK 217

Perhaps identical with the Regimen acutorum (q.v.).

Compendium compositionum (?)

"Quoniam de melioribus amicis quos habere videor..."

13. CUg 373(593), 14 c., fols.101r-102v TK 1270

Bernard's authorship seems confirmed by the fact that, in this early MS, the work occurs between two authentic Gordonian tracts, namely the Regimen acutorum and the De gradibus: see Nos.286 and 105 below. For a similar incipit, see No.85 below; also No.326.

Compendium regiminis acutorum - also see Regimen acutorum

"Cum omnis prolixitas sit noverca veritatis..."
or "Quoniam tamen (?) omnis prolixitas..."

14. BN 15373, 14 c., fols.162r-v TK 327

15. Basel D.I.11, [ca.1400], fols.128va-129v TK 1304

"Cum omnis prolixitas noverca sit veritatis ideo ego intendens (videns) librum regimenti diffuse late quoque conditum, fui motus amore mei socii magistri Johannis de Confluente hunc librum a capite breviter sub quodam epilogo pertractare.
Regimen acutarum consistit in tribus.../
...Et si complete dicta Ypocratis non aggregavi, peto veniam de obmissis etc. Et tantum de illo."

16. **VAp 1083, a.1458, fols.281v-283r

17. [Ea Q.227?], a.1308 Sud(1915),93

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

"Circa librum Regimen acutarum sunt quinque considerationes..."

18. VAp 1229, 15 c., fols.251ra-252vb TK 215

19. Pr.(with Lilium, q.v.) *Venice 1498, fols.2v-5r NYAM

20. ---------- *Paris 1542 fols.359v-369r NYAM

21. ---------- *Frankfurt 1617 fols.873-879 NYAM

Tr.(Hebrew) by unknown translator

22-25. Four MSS, no dates given Stein 786

In the introduction, the author atates that he is writing this compendium for a friend, Maestro Giles [sic].

Capitulum de Confectione ducente ad insenescibilitatem, quantum est possibile per naturam

"Colligantur in primis quinque aque..."

26. Ea Q.227, early 14 c., fol.209r-v Sud 185-187 (with text)

This is the last chapter (VII) of the De marasmode (q.v.).

De conferentibus et nocentibus (?)

"Conferunt cerebro fetida (ut) in gravi..."

27. CUpet 178, 13 c., fols.202v-207v TK 246

28. BLcm 455, 15 c., fols.226-(237) TK 246

Also attributed to Galen, Gualterus Agulinus, Arnold de Villanova, and so on.

De conferentibus et nocivis (?)

"Nocet cerebrum argento..."

29. Oo 4, 14 c., fols.226-(229) TK 914

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De conservacione vite humane - comprises four treatises

Prol."Homo (enim) est princeps et rex omnium animalium..."

I. De flebotomia

Text "Flebotomia est evacuacio utilis multitudinem humorum evacuans..."

II. De urinis

Prol."Dilexi veritatis scienciam investigare..."
Text "Urina est colamentum sanguinis..."

III. De pulsibus

Text "Pulsus est nuncius qui non mentitur..."

IV. Regimen sanitatis

Prol."Secundum Aristotelem (intencionem Aristotelis) primo Ethicorum vita humana est triplex..."
Text "Mulier cum appropinquat ad partum debet ire..."

The complete work is found in the following:

30.	Birmingham Reynolds 5007, mid-14 c., fols.1-24	Holley, Catalogue, 442
31.	Ea F.237, mid-14 c., fols.88r-121v	Sud 172-174
32.	BMsl add.26841, 14 c., fols.1-71v	Bell 330
33.	BMsl 217, Valladolid a.1428, fols. 8-105	Bell 330
34.	BMsl 2481, a.1470, fols.2-86v	Bell 330
35.	CLM 3073, 15 c., fols.50r-179v	TK 637,1420
36.	PA 708, 14 c., fols.107-155v	P(1908),10 P(1904),541 TK 433,1150,1608
37.	*BN 6971, 15 c., fols.143-228v	TK 637;McVaugh
38.	BN 16189, n.d., fols.120r-	O'Neill 274
39.	**VAp 1174, 14 c., fols.9v-73v	TK 637
40.	**VAp 1083, a.1458, fols.199v-273r	TK 1150,1420

In the latter MS, the parts and chapters are in total disarray. See also No.102 below.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

41. *Pr.in Opus Lilium medicine, Lyons, Güillelmus Rovillius, 1574, pp.669-855 O'Neill 279

The following contain only three of the four treatises (I,II,and IV in MSS, II,III,and IV in pr.edd.), in so far as can be determined from the references. Several of the MSS, however, may actually contain the entire work, especially since the frequent rearrangement of the sequence of the treatises makes identification difficult.

42. CUg 373(593), 15 c., fols.30r-74v[?] TK 563,756, 884,1420

43. Krakow Jagellonian 2110, n.d. McVaugh

44. Leip 1183, ca.1400, fols.100-115 and 147-179 Sud 172 McVaugh

45. BMsl 334, 14 c., fols.218-290 Bell 333

46. BMsl 512, 14 c., fols.270-374b Bell 332

47. **BMsl 3096,14 c., fols.324-344 Bell 333

48. Pr.(with Lilium, q.v.) Ferrara,1487 (Klebs 180.1)

49. ---------- *Venice, 1498 (Klebs 177.5) NYAM

50. ---------- *Paris, 1542 NYAM

51. ---------- *Frankfurt,1617 NYAM

The following MS contains only two treatises, namely I and III, although the same reservations as expressed above apply here.

52. Ea F.236, 14 c., fols.67r-93v Sud 172,181

The following contain only one treatise of the work:

I. De flebotomia

53. Ea Q.227, mid-14 c., fols.230r- Sud 172

54. BLcm 455, 15 c., fols.196r-207v TK 635

55. BN 16196, 14 c., fols.27v-46r TKa 88

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

56. VAp 1331, n.d., fols.216v-217v — McVaugh

"Flebotomia est multum iuvativum in tempore sanitatis..."

57. (Fragm.?) Os 172, 15 c., fols.264r-(270) — TK 563

Perhaps chapter II.of the De flebotomia.

58. Tr.(Hebrew, from vernacular), in Castejon d'Ampurias, Dec.1378 — Stein 787

II. De urinis

59. Brux II.1413, [15 c.], fols.91-112 — McVaugh

60. Krakow Jagellonian 821, n.d. — McVaugh

61. Krakow Jagellonian 2027, n.d. — McVaugh

62. Krakow Jagellonian 2425, n.d. — McVaugh

63. BMsl 59, 15 c., fols.156-181 — Bell 334

64. Los Angeles Benjamin 3, n.d., fols. 1v- — O'Neill 276

65. Metz [178?], 13 c.[sic], n.fols. — P(1908),10

66. BN 6860, 14 c., fols.191r-217v — Kibre

67. VAp 1265, 15 c., fols.25r-55r — TK 1608

68. (Fragm.) CUt O.VIII.2, 13 c., fol.80r-v "Urina alba vel glauca vel pallida vel..." Probably chapter XI. — TK 1607

69. ------- BMh 1612, n.d., fol.4v- "Regiones urine sunt quatuor. Prima regio est..." Probably chapter IV. — TK 1346

70. ------- BN 6972, n.d., fol.90r "Color urine quidem est qui signat temperamentum..." Perhaps chapter II. — TK 235 (as by Arnold of Villanova)

71.**Tr.(Italian) and pr., Il 'De urinis di Bernardo di Gordon (XIII-XIV sec.), Silvano Chelini [and] Aldo Scapini, Pisa, 1968.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Commentaries on De urinis

72. Oma 164, 15 c., fols.127-(138) TK 1643
"Utrum de urina possit esse..."
In librum de urinis Bernardi de Gordonio

73. Oo 80, 15 c., fol.22r-v TK 690
"In libro super urinas magistri Bernardi de Gordonio..."

III. De pulsibus -seems not to occur separately in MSS with one notable exception, a fragment:

74. (Fragm.) *NYAM, 14 c., 1 vellum folio, with beautifully illuminated initial P: a physician taking the pulse of a patient.
See also No.81 below.

IV. Regimen sanitatis

75. BMsl 3097, 28 Dec.1311, fols.1-61r O'Neill 273

76. BMsl 38689, 14 c., fols.1-56 Bell 334-335

77. BMsl 513, 14 c., fols.293v-345r TK 884

78. Ome 47, 15 c., fols.1-(49) TK 1420

79. BN 16190, n.d., fols. -40v O'Neill 274

80. Vienna 5315, 15 c., fols.1r-70v TK 1420

81. (Fragm.) *NYAM, 14 c., 1 vellum folio, with beautifully illuminated initial S: a teacher with book on lectern, and three tonsured students at his feet.
See also No.74 above.

82. Pr.(under the title De conservatione vite humane) Leipzig, Joachim Baudisius, n.d. O'Neill 277

83. Tr.(Spanish) of first chapters, under the title El tractado delos niños con el regimiento dela ama, "La muger quando se allegare al parto..." O'Neill 277
and pr.(with Lilio de medecina) Seville, Meinhard Ungut y Stanislas Polonus, 18 April 1495. Hisp.Soc.of Am.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

84. Tr.(Hebrew), translator and date unknown.
Escorial Pl.3.c.9, n.d. Stein 787

It is not clear whether this tr.comprises the entire De conservacione vite or only book IV.

De crisi et criticis diebus see Liber pronosticorum

De dosi medicinarum (?)

"Cum quidam de melioribus amicis, quem haberem, rogavit me, ut ei in scriptis redigerem breviter..."

85. Ea F.236, a.1361, fols.94r-95v Wick I,75

Contrary to the assertion by Wickersheimer, Sudhoff did not attribute this work to Bernard, but suggested that it was an excerpt from Mesue Jr, De medicinis laxativis, or a tract by Johannes de Parma (fl.1350).....Sud 181-182
However, it should be noted that in the above MS, the treatise occurs between two authentic Gordon works: see Nos.108 and 257 below.
See also No.13 above for a similar incipit; also No.326.

Electuary

"Capitulum de curatione cuiuslibet talis [sic, tabis?]..."

86. VA 5377, n.d., fol.146r L.Thorndike, Isis, XIII(1929),91
"A most precious electuary of Master Gordon which is presumably an extract from the medical writings of Bernard Gordon"
See also Nos.2 and 26 above.

De epidemia -see also Regimen tempore pestilentiae

"Homo est rex et princeps..."

87. Metz 282, 15 c., n.f. Sud 184
Probably part of the De conservacione vite: see incipit of prologue.

"Epidemia habet esse formaliter a corpore supercelesti..."

88. Ea Q.219, 13-14 c., fols.202r-204v Sud(1930S),45-48
Appears different from the preceding.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Experimenta (?)

89. Wolfenbüttel 912, 15 c., n.f. Sud 185

Extracta

90. Tr.(Hebrew) by Ashen, son of Moyses of the Olobrega family, Arles 1468 P(1909),387

Lyons, Palais des Arts, Hébreu 15, item 6, 15 c. P(1909),402

De febribus (?)

"Febris est calor naturalis mutatus in igneum..."

91. Amiens 603, 14 c., fols.1-31 P(1908),10
Sud 184

Perhaps Part I of the Lilium, q.v., but for different works with similar incipits, see.....TK 551-552

92. *Pr.in De febribus opus sane aureum, Venice, G.Bindoni, 1576, fols.207v-217r Wick I,75

De flebotomia

93. Tr.(Hebrew), date and translator unknown

Boston Medical Library 16, a.1468, n.f. (follows Hebrew tr.of Lilium, q.v.) Ballard, Catalogue,12

"different from Part I of De conservacione vite" Herndon,81

De flebotomia tractatus, extractus de Floribus lilij

"Flebotomia secundum Avicennam cap.(?) primum est evacuacio universalis..."

94.**VAp 1083, a.1447, fols.217r-221r TK 564

Not from the Lilium, as the title would suggest, but from the De conservacione vite, I.De flebotomia, q.v.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Fleur de Chirurgie (?)

95. Louis Dulieu, "Une exposition d'ouvrages anciens d'anatomie," Monspeliensis Hippocrates, XXI (1966), has an illustration with the caption, "gravure tirée de la Fleur de Chirurgie de Bernard Gordon, Paris, Jehan Petit, 1504."

Flores antidotarii (?)

"Electuaria calida: Dyamargariton..." See TK 495,412

96. CLM 26908, 14 c., fols.92- Wick I,75

Contrary to what Wickersheimer states, Sudhoff did not attribute this work to Bernard, but indicated that it was similar to the first part of Johannes de Sancto Paulo, "Cogitanti michi..." Sud 183 see TK 229-230

De floribus dietarum (?)

"Corpus hominis ex quatuor constat humoribus..."

97. Ea F.275, a.1300-1310, fols.91r-94r Sud 181

98. Ea F.289, early 14 c., fols.32v-33v Sud 181

99. Ea F.237, 14 c., fols.73v-74v Sud 181

100. Ea Q.185, n.d., fols.46r-49v Sud 181

101. *Pr.(with Lilium) Lyons, Guillelmus Rovillius, 1574, pp.948-963 NYAM

Perhaps by Arnold de Villanova or by Johannes de Sancto Paulo TK 268 TK 269 Wick II,480

Flores Lilij Bernardi de Gordonio

"Incipiunt Flores Lilij Bernardi de Gordonio compilati ab eo in Monte Pessulano anno 1307 xxij die Februarij. Flebotomia secundum Avicennam...[see No.94 above]/...Explicit tractatus de flebotomia extractus de floribus lilij Bernardi de Gordonio." TK 564

102. **VAp 1083, a.1447, fols.217r-223r

The above explicit is followed by three more chapters on phlebotomy by Bernard,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

and on fol.223r of the above MS, "Et sic est finis illius tractatuli de cauteriis anno 1447." Then follows Bernard's De urinis (s.v. De conservacione vite, II).

De fluxibus (?)

103. VAp 719, n.d. Wick I,75

Perhaps Lilium, V.16, "De recapitulacione omnium fluxuum."

De gradibus

"Doctrinam de gradibus intendimus triplicem ordinare..."

104. Berlin F.186, 15 c., fols.84v-89v Sud 179

105. CUg 373(593), 14 c., fols.103-104v TK 460

106. CUg 1693(Ii.I.i), 14 c., fols.1-12 TK 460

107. Cues 308, n.d., fols.108v-116 TK 460

108. Ea F.236, 14 c., fols.50v-52 Sud 179

109. Ea F.237, 14 c., fols.86-87v Sud 179

110. Ea Q.227, 14 c., fols.304- Sud 179

111. Leip 1170, n.d. Sud 180

112. Leip 1183, end 14 c., fols.180r-182v Sud 180

113. Ome 225, 14 c., fols.90v-102r TK 460

114. BLcm 411, 14-15 c., fols.180v-(187) TK 460

115. BLcm 455, 15 c., fols.188-192 TK 460

116. BMsl 217, Valladolid a.1428, n.f. Bell 330

117. PA 708, 14 c., fols.150-153 P(1908),10

118. VAp 1115, a.1430, fols.168r-175v TK 460

119**VAp 1083, a.1447-1458, fols.273v-278v

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

120.**Pr., ed.Julius Pagel, Ueber die Graden der Arzneien nach einer bisher ungedruckten Schrift des Bernhard von Gordon aus dem Jahre 1303," Pharmaceutische Post, XXVIII (1895), 65-67, 131-133, 142-144, 180-182, 221-225, 257-262.
Ed.from the MSS listed in Nos.104, 108 and 109 above, but in all three cases, Pagel referred to the MSS as "Q.", erroneously according to.....Sud 179

121. Tr.(Hebrew), date and translator unknown

Bodleian Uri 420, n.d. Stein 787

De imaginibus signorum (?)

"Aries est signum femineum igneum..."

122. Wiesbaden 79, 15-16 c., fols.54- TK 131

Perhaps part of Bernard's tr.of the De reductione geomancie ad orbem, or of his Liber pronosticorum (qq.v.)
See also Nos.312 and 313 below.

De impregnatione

"Quia sterilitas (multis) causis (accidit), ideo ab ipsis inchoemus. Temperamentum complexionis est causa fecunditatis et lapsus est causa sterilitatis..."

123. Brux II.1413, Montpellier a.1411, fols.148rb-149vb McVaugh
Desinit, "...vitet tunc omnem sollicitudinem et tristiciam et offensas, sit in gaudio et leticia cum exercicio non violento etc. Est finis Deo gracias."

124. BN 6957, 15 c., fols.55v-57v P.Diepgen, "Studien...Arnald von Villanova," SA,VI(1912),390
Desinit, "...et fiant pessaria sum lana etc."

See also De sterilitate, Nos.314-319 below.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De ingenio sanitatis or De decem ingeniis curandorum morborum or Tabula ingeniorum curandi morbos

"Ingenia curacionis (curandi) morborum (morbos) quantum est de presenti sunt decem..."

125. Boston Medical Library 18, England 13-15 c., fols.68v-73r — Herndon 81

126. CUg 373(593), 14 c., fols.85- — TK 743

127. Ea Q.219, mid-14 c., fols. -200r — Sud 167
As Excerpta ex Galeni et Avicenne libris de ingenio sanitatis a Bernardo de Gordonio deprompta — Sud(1930),46

128. Ea F.236, mid-14 c., fols. -49r — Sud 166

129. Ea F.237, Italy mid-14 c., fols.75-86 — Sud 167

130. Ea Q.227, ca.1350, fols. -208r — Sud 165

131. Leip 1183, end 14 c., fols.142-145r — Sud 167;McVaugh

132. Leip 1183, end 14 c., fols.194v-196r — Sud 167;McVaugh

133. Leip 1161, n.d., fols.108v-110 — McVaugh

134. Leip 1213, n.d. — Sud 167

135. BMsl 334, 15 c., fols.297v-301r — TK 744

136. CLM 340, a.1304, fols.259v-265r — Sud 167

137. CLM 8808, a.1426, fols.19r-22r — Sud 167

138. PA 708, 14 c., fols.232-234 — P(1908),10
As Affectus preter naturam curandi methodus

139.**VAp 1083, a.1447-1458, fols.283r-285v — TK 744

140. VAp 1229, 15 c., fols.253r-253v — Kibre;McVaugh

141.*Pr.(with Lilium)*Venice, 1498 — NYAM

142.---------- *Paris, 1542 — NYAM

143.---------- *Frankfurt, 1617 — NYAM

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

144. Tr.(Hebrew), date and translator unknown, no MSS listed. Stein 786

Instructio brevissima pro iter agentibus

"Qui longas itinerationes suscipit, ante omnia corpus per purgationem et venesectionem mundificet..."

145. *Pr.with Johannes S.Strobelberger, Galliae Politicae et Medicae Descriptio, 2nd ed., Jena, 1621, pp.288-293. Wick I,75 NYAM

Differs from the corresponding passages in the Lilium (I.31) and in the Regimen sanitatis (XXVII).

De lapide philosophico (?)

"Guidonis duodecimo omnis namque ordinata generatio est..."

146. CUt 1120(III), 15 c., fols.23r-26v TK 592

147. BLas 1420, 16 c., fols.71-80 TK 592

Lilium medicine, see Practica

De marasmode

Prol."Sed ut servemus consuetudinem nostram antequam veniamus ad execucionem, queramus..."
Text "Marasmodus est corrupcio viventis corporis in siccitate..." See TK 848 for Galen

148. **BMsl 3096, 13-14 c., fols.335r-336v

149. BLd 56, 14 c., fols.52-55 L.Thorndike,"Translations...Niccolo da Reggio," p.226

150. **VAp 1234, 14 c., fols.135r-139v Kibre

151. Wolfenbüttel Helmst.444, 15 c., fols.127v-130r Sud 184

152. (Fragm.) Occ125, n.d., fols.13v-15r McVaugh

153. (Fragm.) Ea Q.227, [14 c.], fols. 208-209r Sud 185

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

The latter fragment was listed by Sudhoff as Quaestio disputata a magistro Bernardo de Gordonio, incipit, "Questio. Queratur utrum seminalia intrent substanciam fetus et videtur quod non..."
This is the introductory questio, which occupies one third of the De marasmode.

Other possible fragments of the De marasmode, see Nos.2, 26, and 86 above.

De medicaminibus (?)

"Digestivum in passionibus superioris capitis. Recipe utriusque salvie..."

154. BMsl 2527, 15 c., fols.146v-153v TK 430

See also No.1 above.

De medicinis conficiendis (?)

"Cum volueris conficere medicinam prius consideranda sunt..."

155. CUg 411, 13 c., fol.120v TK 352

156. BLd 79, 13 c., fols.58v-(82) TK 352

157. Oo 4, 14 c., fol.216 TK 352

La summa del Gordo de simplas medicinas et compostas (Provençal)

158. PA 2525, item 8, n.d.

"copié par Lacurne de St Palaye du MS Vatican 4797" P(1909),401

Possibly a tr.of the De medicinis conficiendis, which in turn may be the Antidotarius as the end of the Lilium.

De modo medendi in egritudinibus presertim [rather than pristinibus] cum medicus nescit causam (?)

"Cum medicus ut plurimum a principio egritudinis..."

159.**VAp 1083, a.1447-1458, fol.322r-v TK 318

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Modus medendi (or, practicamdi) (?)

"Ego fili carissime tuis acquiescens precibus..."

160. BMsl 134, 15 c., fols.170r-172r TK 487

161. Oo 4, 14 c., fols.229-(230) TK 487

Modus medendi extractus de Modo Coffonis (?)

162. CLM 19901, 15 c., fols.1-10 Sud 182
(no incipit given)

Morbi contagiosi

"Febris acuta, ptisis, scabies, pedicon, sacer ignis..."

This is actually a sentence in the Lilium (I.22 and III.3, rather than a treatise. TK 550

De morbis puerorum (?)

"Passiones (et mørbos) puerorum adhuc in cunabulis..."

163. VA 10213, n.d., p.541a-b TK 1028

The above incipit does not occur in the parallel passages of either the Lilium or the Regimen sanitatis.

De natura et complexione superiorum, quantum medico

164. BN 16189, n.d. Wick I,75

The title is identical with that of the Liber pronosticorum, V.7.

De neutralitatibus decidentie (?)

"Considerandum est urina utrum sit remissa vel elevata..."

165. Wolfenbuttel Aug. F.[12.4], a.1452, fols.168-171 Sud 183

166.**Ed.Erna M.Kollert, Leipzig diss., 1924

Opera -since several treatises usually accompanied the Lilium sive Practica in the pr.edd., see Practica.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De passionibus capitis usque ad pedes (?)

"Recipe utriusque salvie utriusque..." [sic]

167. Basel D.III.1, 15 c., fols.110ra-116ra TK 1339
Probably identical with the Antidotarius at the end of the Lilium.
See also No.154 above.

De phlebotomia, see De flebotomia

Practica dicta Lilium medicine

Prol."Interrogatus a quibusdam (quodam) Socrates quomodo posset optime dicere..."
Text "Febris est calor innaturalis (naturalis) mutatus in igneum..."

168. Avignon 993, 16 c., n.f. P(1908),10

169. Avignon 996, 16 c., n.f. P(1908),10

170. Besançon 466, 16 c., n.f. P(1908),10

171. Bethesda, NLM 497, a.1349, fols.1-151 Herndon,80

172. Bethesda, NLM 498, a.1419, fols.3-215 Herndon,80

173. CUsj 180 (G.12), a.1312, fols.1r-204v TK 772

174. Chartres 224, 16 c., n.f. P(1908),10

175. Dresden 227, 15 c., n.f. E.Güntz, Archiv Dermatologie und Syphilis,II(1870),63

176. Ea F.258, before 1310, n.f. (English hand) Sud 163

177. Ea Q.219, a.1335, fols.1- Sud 163

178. Évreux 114, 16 c., n.f. P(1908),10

179. Krakow Jagellonian 2108, n.d. McVaugh

180. Leip 1189, before 1350, fols.1-109v Sud 164

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

181. Leip 1191, [ca.1400], n.f.	Sud 164
182. Leip 1192, a.1434, fols. -191v	Sud 164; SA,II (1909), 423
183**BMh 3698, Febr.5,1305, fols.1-99v	Winau
184. BMsl 3096, 14 c., fols.220-232	Bell 333
185. BMr 12.D.XIII, 14 c., fols.17-(106)	TK 772
186. BMsl 334, 14 c., mf.	Bell 333 O'Neill 87
187. BMsl 512, 14 c., n.f.	Bell 333 O'Neill 87
188. Wellcome 130, a.1330, fols.1-145	Bell 333 O'Neill 87
189. Mainz 520, 14 c., n.f.	Winau 27
190. Mainz 523, a.1417, n.f.	Winau 28
191. Mainz 194, 15 c., n.f.	Winau 28
192. Metz 178, 16 c.[? 14 c.], n.f.	P(1908),10
193. Metz 381, 16 c., n.f.	P(1908),10
194. Montpellier 451, 15 c., n.f.	P(1908),10
195. CLM 13019, a.1313, fols.1-110v	TK 772;Sud 164
196. CLM 457, n.d., n.f.	Sud 164
197. CLM 3522, n.d., n.f.	Sud 164
198. CLM 26908, 14 c., fols. -81r	Sud 164,183
199. PA 708, 14 c., fols.1-124	P(1908),10
200. PA 979(16.B.L.), 14 c., fols.25-(112)	TK 772
201.*BN 6964, a.1305, fols.1-81v	TK 772
202.*BN 6965, 14 c., fols.1-89v	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

203. *BN 7054A, 14 c., fols.1-87v

204. Paris Faculté de Médecine, 15 c., n.f. P(1908),10

205. BN 11227, n.d., n.f. O'Neill 87
Bell 333

206. BN 15117, n.d., n.f. O'Neill 87
Bell 333

207. Philadelphia College of Physicians,
14 c., n.f. Herndon 80

208. Vendôme 238, 14 c., n.f. TK 772

209. Vendôme 176, 16 c., n.f. P(1908),10

210. Vendôme 338, 16 c., n.f. P(1908),10

211. Vienna 2338, a.1322, fols.1-99 TK 772

212. (Fragm.) University of Kansas B22,
14 c., n.f. Hansen
Lilium I.13-18:"Consilia medica"

213. ------- CLM 340, a.1304, fol.51r TKa 80
Lilium II: "Alopicia est casus
capillorum cum ulceribus..."

214. ------- Cassel Medic.4to.2,a.1441 TK 85
Lilium II, Secreta extracta
de Bernardo de Gordonio
[by] Wermboldus Oustege de Campis,
Padua, a.1441.
"Alopicia est casus capillorum
cum ulceribus..."

215. -------**BMsl 420, 14 c., fols.99v-101r-104
"Per graciam Dei de regimine sanitatis longiorem tractatum intendamus edere..." TK 1031
"Circa regimen sanitatis cadunt septem consideraciones.Prima..." TK 220
Lilium V.8.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

216. ------- Basel D.I.18, 14 c., fols. 104va-107rb TK 518

Lilium V.8, Compendium de regimine sanitatis secundum auctorem Lilii

"Et licet perdidi (?) [per Dei] rationem [sic, graciam] de regimine sanitatis..."

217. ------- BMsl 3468, 14 c., fols.27r-31r TK 828

Lilium V.8

"Licet per Dei graciam de regimine sanitatis..."

218. ------- CUg 487(483), 14 c., fol.10ra TK 1066

"Postea est inflammatio seu tumor praeter naturam..."

219. ------- Bethesda, NLM 507, 15 c., n.f. Herndon 80

Lilium extract.

220. ------- VAp 1207, 15 c., fols.15r-16v TK 1502

De cautela preservandi a contagio leprosorum

"Signa lepre ex Avicenna Gordonio Viatico et Gilberto..."

221. Pr. Naples, 1480 [?] S III,875

222. -- Ferrara, Andreas Gallus, 1486

223. -- *Venice, Bonetus Locatellus, 1498 Hain 7800
NYAM

224. -- *Paris, Dionysius Ianotius, 1542 NYAM

225. -- Lyons, Guillelmus Rovillius, 1574
"the most complete pr.compilation of Bernard's writings" O'Neill 269

226. -- *Frankfurt, Lucas Jennis, 1617 NYAM
"the last printing" S III,875
See, however, No.252 below.

227. Tr.(French) and pr., Lyons, 1495 Hain 7801
"translaté de latin en françoys à Rome lan mil ccc.lxxvii. ou temps de pape Gregoire [XI]. Et imprime à Lyon lan 1495 le dernier jour daoust." O'Neill 89

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

228. Tr.(French, fragm.)
Petit tractié qui parle des passions depuis le chief jusques aux piez selon maistre Bernard de Gourdon

"Vecy ung digestif lequel vault es passions froides di chief... / ...item le livre de graduatione."

BNfr 1288, 15 c., fols.136-142 — P(1909),388

Probably a tr.of the Antidotarius at the end of the Lilium.
See the incipit of No.1 above.

229. Tr.(French, extracts)
Compillacion faite par maistre B.de Gourdon, docteur en medecine et par lui compillé en la noble université de Montpellier. — HL XXV,324

"Quant aucun veut faire aucune bonne operation de vouloir compiller et faire oeuvre salutaire... / ...ilz puissent acquerir le royaume de Paradis."

BNfr 1327, 15 c., fols.1-38 — P(1904),541; P(1909),388

Compilation of extracts from the Lilium and from the Liber pronosticorum.

230. Tr.(German, fragm.), ca.1350

Vienna Lat.[sic] 2864, n.d., fols.44v-56r — Carlowitz (Leipzig,1913)

231. Tr.(Hebrew), Seville, 1360, by Moyses ben Samuel of Roquemare, alias John of Avignon — Wick I,76
Perah ha-refu'ot (Bud of Health) — S III,873

Oxford Bodleian Michener 390, n.d. — Stein 785

232-245. Tr.(Hebrew), Narbonne, 1387, by Jekuthiel ben Solomon, alias Bonsenhor Solomon of Narbonne — S III,873
Shoshan ha-refuah (Lily of Medicine)

Steinschneider lists 14 MSS, n.d. — Stein 785

246. Tr.(Hebrew), ca.1400, by Leo Joseph — Wick I,76

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

247. Tr.(Hebrew), date and translator unknown [?]
Boston Medical Library 16, a.1468 Herndon 80

248. Tr.(Hebrew), date and translator unknown [?]
Dr.Lyle M.Sellers, Dallas, Texas, 15 c. Herndon 80

249. Tr.(Irish), 15 c., "by a member of the O'Hickey family in the northern part of Munster" ... "never published." (no MSS or references given) S III,873

250. Tr.(Irish), 15 c., "by Cormac Mac Duinnsthleibhe, a distinguished scholar and physician of Ulster"... "never published." (no MSS or references given) S III,873

251. Tr.(Spanish) and pr., Seville, Meynardo Ungut y Stanislao Polono, 18 April 1495 Klebs 179
O'Neill 87
Lilio de medicina Hispanic Society

252. Tr.(Spanish) and pr., Madrid, Antonio Gonçalez de Reyes, 1697 O'Neill 278
This appears to be the last pr.ed. of the Lilium.

Liber pronosticorum or De crisi et criticis diebus

Prol."Senectus domina oblivionis est. Nunc autem cum sciencia predicandi sit ardua et difficilis..."
Text "In morbis pronosticare non possumus nisi morbum cognoscamus..."

253. Ea F.275, ca.1300-1310, fols.95r-117r Sud 169

254. Ea F.289, before 1350, fols.33v-43r Sud 183

255. Ea Q.227, before 1350, fols.209v-229v Sud 168

256. Ea F.237, 14 c., fols.76-84 Sud 168;TK 1428

257. Ea F.236, end 14 c., fols.96r-115 Sud 183

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

258. Ea F.267, 14 c., fols.1-25 — Sud 169; TK 1428

259. Krakow Jagellonian 818, n.d. — McVaugh

260. Krakow Jagellonian 821, n.d. — McVaugh

261. Leip 1183, 14 c., fols.31r-44v — Sud 169; McVaugh

262. BMsl 334, 15 c., fols.189ra-213 — TK 1428

263. CLM 26908, before 1350, fols. -91 — Sud 183

264. Oxford Magdalen College 164, 15 c., fols.138r-151r — TK 756

In this MS the treatise has apparently been rearranged, since it opens with the incipit of the Liber pronosticorum, IV.1, "Intelligendum est quod in cerebro sunt tres cellule..."

265.**VAp 1174, 14 c., fols.73va-103ra

266.**VAp 1083, a.1458, fols.285v-308r — TK 692

267. VAp 1331, 15 c., fols.198r-216v — TK 1428

268. VAp 1098, n.d., fols.187v-224r — TK 692

269. Wiesbaden 56, 15 c., fols.62r-83v — TK 1428

270. Wolfenbüttel 81.4.Aug.F., n.d., fols. -383v — Sud 169

271. (Fragm.) Bristol City Reference Library, a.1420-1435, fols.272v-279v — TK 211

"Circa istam materiam est intelligendum quod natura.../...aliter non poterit esse perfectus in sciencia predicandi nec eciam operandi.../...Ysopus prassium et liquiricia et sic de aliis et sic preservabitur si deus voluerit."

*ed. Ch. Singer, IIe Congr. Internat. Hist. Médecine (Paris, 1921; Évreux, 1922), pp.168-176

A careful comparison with Bernard's Liber pronosticorum leaves no doubt that this MS is merely a rearrangement of that work, rather than a treatise by Guy de Chauliac, as Charles Singer believed.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

272. (Fragm.?) Prague 243 (I.F.11), n.d., fols.176r-182v — TK 960

De pronostico de Monte Pessulano

"Numerus et sufficientia dierum cret(ic)orum habetur..."

This incipit opens the Liber pronosticorum, V.6.

273. (Fragm.?) CUt 1122(O.II.18), 15 c., fols.159v-160r — TK 863

De natura signorum et septem planetarum

"Medicus autem velit nolit supponendo aut quoque modo fit..."

This incipit opens the Liber pronosticorum, V.8.

274. Pr.(with Lilium), *Venice, 1498, fols.5r-19r — NYAM

275. ---------- , *Paris, 1542, fols.369v-423r — NYAM

276. ---------- , Lyons, 1574 — O'Neill 269

277. ---------- , *Frankfurt, 1617, fols.880-1014 — NYAM

278. Tr.(Hebrew), ca.1400, Leo Joseph — Wick I,76

279. Tr.(Hebrew), date and translator unknown; no MSS listed — Stein 787

280. Tr.(Hebrew), date and translator unknown; no MSS listed — Stein 787

281. Tr.(Hebrew), date and translator unknown (?)

Boston Medical Library 17, 15 c., fols.1r-18r — Herndon 81

282. Tr.(French, fragm.) with extracts from the Lilium: see No.229 above.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

De pulsibus (?)

"Sciendum quod pulsus grossus est..."

283. VAp 1098, n.d., fols.224r-227v — TK 1398

The above incipit does not occur in Bernard's De conservacione vite, III. De pulsibus, q.v.

Questio disputata see No. 153 above.

Ratio computandi per digitos (?)

"Hic incipit prima computatio, VI nonas Aprilis signat..."

284. CUMm IV.41, 14 c., fol.100r — TK 620

De raucedine

285. Prague Lat.1610, n.d. — Wick I,75

This may be the Lilium IV.3.

Regimen acutorum morborum or -acutarum egritudinum (and see Compendium regiminis, above)

"Regimen acutarum egritudinum consistit in tribus..."

286. CUg 373(593), 14 c., fols.97-99r — TK 1344

287. CU 1708(IV.i.16), 14 c., fols.54-60v — TK 1344 (as anon.)

288. Chartres 393, 13-14 c., fols.1-4 — TK 1344

289. Cues 308, n.d., fols.103-106 — TK 1344

290. Ea Q.227, ca.1350, n.f. — Sud(1930),46

291. Ea Q.219, 14 c., fols.200-203r — Sud 168 Sud(1930),46

292. Ea F.236, n.d., fols.221-223 — TK 1344 (as anon.)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

293. Leip 1183, end 14 c., fols.193r- Sud 167

294. Leip 1161, n.d., n.f. Sud 167

295. Leip 1170, n.d., n.f. Sud 167

296. Leip 1200, n.d., n.f. Sud 167

297. CLM 4395, 15 c., fols.206r-210v TK 29

"Acutarum egritudinum regimen consistit in tribus..."

298. CLM 340, n.d., fols.252vb-259vb TKa

299. *VAp 1083, a.1447-1458, fols.278v-281v TKa

300. Vienna 5306, 15 c., fols.132r-134v TK 1344 (as anon.)

301. Pr.(with Lilium), *Venice, 1498 NYAM

302. ---------- , Lyons, 1491

303. ---------- , Venice, 1521

304. ---------- , *Paris, 1542 NYAM

305. ---------- , Lyons, 1574

306. ---------- , *Frankfurt, 1617 NYAM

307. Comm.(?) BN 7124, a.1489, fols.223r-258r TK 943

"Nota secundum Gordonium in libro suo regimentis [sic] acutorum..."

Regimen sanitatis, see De conservacione vite, IV.

Regimen tempore pestilentiae (?)

"Febres pestilentiales sunt ille que adveniunt..."

308. Glasgow 323(U.7.17), a.1452, fol.1v TK 550 (as anon.)

309. CLM 4119, 15 c., fols.443v-453 TK 550 (as anon.)

The above incipit is the same as that of Bernard's Lilium, I.10, "De febribus pestilentialibus."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Excerpta ex eius tractatu de Reumate (?)

"Signa reumatis calidi acuti secundum Avicennam tertio Canonis..."

310. Vienna Lat.2426, 14 c., fols.143v-144r Sud 184

The above incipit seems not to occur in Bernard's chapter on rheuma, the Lilium, III.16.

Le secret des dames (?)

"Dix règles par quoi l'on peut entendre pourquoy les femmes ont chascun mois leurs fleurs selon M[aistre] Bernard de Gourdon.
Cy commence le secret des dames que peut entendre légèrement le gouvernement des fleurs des dames..."

311. BNfr 19989, 15 c., fol.42 P(1909),388

Perhaps a tr.of excerpts from the Lilium or from the Regimen sanitatis?

Tractatus ad faciendum Sigilla et Ymagines contra infirmitates (?)

"Incipiamus cum Dei adiutorio de his que possunt..."

312. Vienna 3162, 15 c., fols.239r-241r TK 723

313. Wiesbaden 79, 15 c., fols.54va-56rb TK 723

See also No.122 above.

De sterilitate mulierum

"(Et quia) causa sterilitatis accidit, ideo ab ipsis (ipsa) inchoemus. Temperamentum complexionis est causa fecunditatis..."

314. CUpet 101,III, 13-14 c., fol.5 TK 1556

315. Ea F.236, a.1361, fols.223-224 TK 522

316. Leip F.1216, ca.1400, fols.137r-138v Sud 184-185

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

317. Metz 282, 15 c., n.f. — Sud 184

318.*BN 7066, 15 c., fols.28r-32r — TK 1556
P(1904),541, gives BN 7064

319:**VAp 1083, a.1458, fols.320r-321v — TK 1214

Desinit, "Et sic est finis tractatus de sterilitate editus a bernardo de Gordonio decano preclari studii Montispessulani. Finitus et scriptus per Johannem Borner de Büdingen in octava assumpcionis Beate Marie Virginis [Aug.22] anni etc.[sic, 14]58."

Tabula ingeniorum, see De ingenio sanitatis

Termini medicinales secundum Magistrum Gordonium

"Et primo de allopicia est..."

320. Wilhering 71, 15 c., fols.272-279 — TK 520

De tyriaca

Prol."(Inquit magnus medicus Hamet Averroys,) Tyriaca est confectio magna curans omnem (venenosam) egritudinem..."
Text "Queritur igitur utrum tyriaca possit exhiberi corporibus sanis..."

321. Cues 308, 14 c., fols.113-116 — TK 1574

322. Ea F.270, 13 c., fols.73v-76 — TK 1574

323. Ea Q.227, 14 c., fols.300-303v — TK 1574

324. Krakow Jagellonian 825, n.d., n.f. — McVaugh

325:**BMsl 3096, 13-14 c., fols.337r-338v — TK 1574

326. PA 707, 13-14 c., fols.89-92 — Sud 180
P(1908),10
"Inquit...Averroys postquam prius gratias Deo egero dicam quod quidam ex amicis..."
See Nos.13 and 85 above.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

327**VAp 1083, 15 c., fols.322v-326v TK 1574

328. (?) Ea F.249, 13-14 c., fols.292v-294v TK 750 (Averroes)

329. (?) CLM 3520, 13-14 c., fols.42vb-44vb TK 750 (Averroes)

330. (?) CLM 490, a.1489, fols.166r-184v TK 750 (Averroes)

331. (?) VA 4454, n.d., fols.142vb-145rb TK 750 (Averroes)

332. Pr.(with Lilium), Lyons, 1491 (?) S III,875

333. Pr., with Magninus Mediolanus, Regimen sanitatis, Florence, 1500 Klebs 640.5

334**Pr.ed., with introd.and tr.(German) by Julius Pagel, "Ueber den Theriak nach einer bisher ungedruckten Schrift des Bernhard von Gordon," Pharmaceutische Post, XXVII (1894), 205-206, 220-224, 235-237, 257-262, and (the Latin text of the final chapter VI) in Pagel's Die angebliche Chirurgie des Heben Mesue Junior (Berlin, 1893), p.144.

From the MSS in Nos.322 and 323 above.

Translacio, Archanum de reductione geomancie ad orbem

"Incipit archanum magni Dei revelatum Tholomeo regi Arabum. Per hoc presens opus possunt cognosci..." see TK 727

335. CUm 27, 14 c., fols.166-173 (incomplete) TK 1032

336. Florence Plut.89.sup.,cod.34, n.d., fols. 11r-20v TK 1032

337**BMh 2404, 15 c., fols.49-59 TK 1032

338**BN 15353, 13-14 c., fols.87ra-92vb Kibre

339. BN 7457, n.d., fols.83r-96r TK 1032

340.*BN 7349, 15 c., fols.138v-141r(incomplete) Wick I,75

De urinis (?) -see also De conservacione vite, II.

"Intelligendum quod color creatur a vite via..."

341. CUg 373(593), 14 c., fols.72v-74v TK 756

The above incipit is different from that of the De conservacione,II, but see No.42 above.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

SELECTED BIBLIOGRAPHY

1. MONTPELLIER

Astruc, Jean. Mémoires pour servir à l'histoire de la Faculté de Médecine de Montpellier. Paris: Cavelier, 1767.

Azemard, Émile. Étude sur les Israélites de Montpellier au Moyen Âge. Nîmes: Université de Nîmes [Dissertation], 1924.

Baumel, Jean. Histoire d'une Seigneurie du Midi de la France; Naissance de Montpellier (985-1213). Montpellier: Causse, 1969.
A lucid and comprehensive study, to which a second volume is forthcoming.

Botto Micca, A. "Le relazioni scientifiche tra l'Università di Montpellier ed i medici piemontesi." Minerva Medica, LVI (1965), 848-853.

Bullough, Vern L. "The Development of the Medical University at Montpellier to the End of the Fourteenth Century." Bulletin of the History of Medicine, XXX (1956), 508-523.
A summary, rather than an analysis, of the documents which were published in the Cartulaire (see below, under Germain).

_____, "The Teaching of Surgery at the University of Montpellier in the Thirteenth Century." Journal of the History of Medicine, XV (1960), 202-203.

Catalogue des manuscrits de la Bibliothèque de la Ville et de celle de l'École de Médecine de Montpellier. Paris: Imprimerie Nationale, 1849.

Chevalier, A.G. "The 'Antimony-War' -A Dispute Between Montpellier and Paris," Ciba Symposia, II (1940), 418-423.
An interesting article which illustrates how the seventeenth-century conflict between Paris and Montpellier had its roots in the former's traditional adherence to Galenism and the latter's interest in research and iatrochemistry.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, and Gerlitt, John. "Famous Medical Teachers of Montpellier." Ciba Symposia, II (1940), 412-417.

Combes, J. "Quelques remarques sur les bourgeois de Montpellier au Moyen Âge." Mélanges Pierre Tisset (Recueil de mémoires et travaux publié par la Société d'histoire du droit et des institutions des anciens pays de droit écrit, VII). Montpellier: Faculté de droit et des sciences économiques, 1970, pp.93-132.

Cooper, Sonoma. "The Medical School of Montpellier in the Fourteenth Century." Annals of Medical History, II (1930), 164-195.
A balanced, if insufficiently documented, survey.

De Bra, Felix. "Kurzer Abriss der Geschichte der medizinischen Schule von Montpellier; Ein historischer Versuch." Janus, X (1905), 297-306, 352-363, 406-418, 416-472.
This essay emphasizes the historiography, but is still based on the assumption that obscurantism stifled all inquiry in the Middle Ages.

Delmas, Paul. Diplômes de l'ancienne Université de Médecine de Montpellier. Geneva: Droz, 1925.
While concentrating on diplomas of 1605, this brief paper contains an interesting introduction on graduating procedures since the thirteenth century.

_____, La Faculté de Médecine de Montpellier; Guide du visiteur. Montpellier: Faculté de Médecine, 1926.
This guide is useful because it relates the present buildings of the Faculty to its earlier history.

_____, and Guérin-Valmale, Charles. "L'hippocratisme montpelliérain; ses origines; Rôle prépondérant des Fils de l'Islam et des Enfants d'Israël." Aesculape, XIII (1923), 2-6, 36-41, 53-57, 90-95, 110-113, 135-138, 163-165.
A detailed study which emphasizes the Greco-Latin as well as the Judeo-Arabic influences, but overlooks the 'native' element in Montpellier's tradition. Also, the authors often jump to seemingly unwarranted conclusions and supply no bibliographical references.

Dulieu, Louis. "La diététique et la nutrition à Montpellier à travers les âges." Monspeliensis Hippocrates, XLVI (1969), 4-16.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, "La Pharmacie à Montpellier à travers les âges." Monspeliensis Hippocrates, III (1960), 3-11.

_____, "Réflexions sur les origines de l'École de médecine de Montpellier." Histoire de la Médecine, numéro spécial (1959), pp.35-55.

_____, "L'Université de Médecine de Montpellier et l'Église." Monspeliensis Hippocrates, V (1962), 3-9.

Euzière, Jules. "Les Maîtres de l'École de Médecine de Montpellier et la Philosophie." Monspeliensis Hippocrates, XXIII (1964), 13-23.
A general survey of seven centuries, which concludes with a sweeping encomium of the 'personalism' of Montpellier's tradition.

Forgue, Émile. Sept siècles de chirurgie à la Faculté de Médecine de Montpellier. Montpellier: Faculté de Médecine, [1920].

[Germain, Alexandre, ed.]. Cartulaire de l'Université de Montpellier. Montpellier: Maison Ricard, 1890, 2 vols.
The first volume contains the documents for the period from A.D. 1181 to 1400.

Germain, Alexandre. Histoire de la Commune de Montpellier. Montpellier: Martel, 1851, 3 vols.

_____, Maguelone sous ses évêques et ses chanoines. Montpellier: Martel, 1869.

Gouron, André. "Deutsche Juristen an der Universität Montpellier im Mittelalter." Ruperto-Carola, XX (1968), 43-48.

_____, "Les docteurs de l'école de droit de Montpellier." Ius romanum medii aevi, IV.3a (1970), 77-88.

_____, "Enseignement du droit, légistes et canonistes dans le Midi de la France à la fin du XIIIe et au début du XIVe siècle." Recueil de mémoires et travaux de la Société d'histoire du droit écrit, V (1966), 1-33.

_____, "Les juristes des Pays-Bas à l'Université de Montpellier au Moyen Âge." Tijdschrift voor rechtsgeschiedenis, XXXVIII (1970), 55-66.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Guitard, Eugène-Humbert. "Les attaques de Guiot de Provins contre les praticiens instruits à Montpellier au XIIe siècle." XVIe Congrès international d'histoire de la médecine; Résumé des communications. Montpellier: 1958, p.78.

Halevy, Mayer A. "Contribution à la protohistoire de la médecine montpelliéraine; Ibn Zabarra et les relations hispano-languedociennes au XIIIe siêcle." XVIe Congrès international d'histoire de la médecine; Résumé des communications. Montpellier: 1958, pp.15-16.

Hilaire, J. "Exercice de style; Une affaire de succession à Montpellier au début du XIVe siècle." Mélanges Pierre Tisset. Montpellier: Faculté de droit et des sciences économiques, 1970, pp.283-299.

Lehmann, E. "Médecins juifs en Provence et au Languedoc et l'École de Médecine à Montpellier aux XIe, XIIe, et XIIIe siècles." Koroth, III (1965), 455-471 [Hebrew; French abstract on pp.xcvi-xcvii].

Leibowitz, Josuah. "Médecins juifs au début de l'École de Montpellier." XVIe Congrès international d'histoire de la médecine; Résumé des communications. Montpellier: 1958,pp.17-18.

Lewis, Archibald. "The Guillems of Montpellier; A Sociological Appraisal." Viator, Medieval and Renaissance Studies, II (1971), 159-169.

Liber instrumentorum memoralium; Cartulaire des Guillems de Montpellier. Montpellier: Martel, 1884-1886, 2 vols.

McVaugh, Michael R. "Quantified Medical Theory and Practice at Fourteenth-Century Montpellier." Bulletin of the History of Medicine, XLIII (1969), 397-413.

_____, "Theriac at Montpellier, 1285-1325 (with an edition of the Questiones de tyriaca of William of Brescia." Sudhoffs Archiv, LVI,2 (1972), 113-144.

Martin, Henriette. "À propos d'un précieux manuscrit de Pétrarque de la Faculté de Médecine de Montpellier." Monspeliensis Hippocrates, III (1960), 3-7.

Mor, Carlo Guido. "À l'origine de l'École de Montpellier: Rogerius ou Placentin?" Recueil de mémoires et travaux de la Société d'histoire du droit écrit, VI (1967), 11-22.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Oliver, F. "Relación entre los médicos aragoneses, catalanes y navarros con la célebre Universidad de Montpellier." Anales de Medicina y Cirurgía, XLVI (1966), 223-228.

Pagès, P. "Zyklen und Rhythmen im Hippokratismus von Montpellier." Medizinische Welt, XI (1965), 558-564, 612-614, 654-657, 706-713.
Although dealing primarily with the nineteenth century, this study illustrates the remarkable vigor of Montpellier's Hippocratic tradition.

Pansier, Pierre. "Documents pour servir à l'histoire de la Faculté de Médecine de Montpellier au Moyen Âge." Monspeliensis Hippocrates, II (1959), 5-12.
A reprint of an article in Montpellier Médical, XXII (1905) which summarized, with some minor corrections, the following study.

_____, "Les maîtres de la Faculté de Médecine de Montpellier au Moyen Âge." Janus, IX (1904), 443-451, 499-511, 537-545, 593-602; X (1905), 1-11, 58-68, 114-125.
This systematic list of Montpellier masters loses most of its value in view of the fact that the author indiscriminately included persons whose connections with the Faculty of Medicine can not be documented.

Rath, Gernot. "Montpellier en face du Moyen Âge allemand." XVIe Congrès international d'histoire de la médecine; Résumé des communications. Montpellier: 1958, p.25.

_____, "Montpellier im Urteil des deutschen Mittelalter." Fachliteratur des Mittelalters; Festschrift für Gerhard Eis. Stuttgart: Metzler, 1968, pp.307-310.

Roussel, P. "Montpellier, rivale de Salerne." Galeno, XV (1967), 6-9.

Russell, Josiah Cox. "L'Évolution démographique de Montpellier au Moyen Âge." (trans.by Ph.Wolff) Annales du Midi, LXXIV (1962), 345-360.

Sayous, A. and Combes, J. "Les commerçants et les capitalistes de Montpellier au XIIIe et au XIVe siècles." Revue historique, CLXXX (1940), 33-44.

Segondy, Jean. "Le Pape Urbain V, insigne bienfaiteur de l'Université de Montpellier." Monspeliensis Hippocrates, XXIII (1964), 7-13.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, "Saint Roch de Montpellier." Monspeliensis Hippocrates, XXIII (1964), 3-12.

Shatzmiller, Joseph. "Notes sur les médecins juifs en Provence au Moyen Âge." Revue des Études Juives, XXVIII (1969), 259-266.

Sigerist, Henry E. "Early Mediaeval Medical Texts in Manuscripts of Montpellier." Bulletin of the History of Medicine, X (1941), 27-47.

Simon, Isidore. "Les médecins juifs et la fondation de l'École de Médecine de Montpellier." Revue d'histoire de la médecine hébraïque, LXVIII (1965), 79-93.

Sudhoff, Karl. "Salerno, Montpellier und Paris um 1200; Ein Handschriftenfund." Archiv für Geschichte der Medizin, XX (1928), 51-62.
Examines the concluding verses of a commentary on Gilles de Corbeil's De urinis, whose last chapter contained the famous invective against Montpellier.

Teissier, Léon. "La cité de Montpellier au temps de Raymond Lulle." Revue des Pays d'Oc, II (1933), 384-390.

Thalamus parvus Montispessulanus. Montpellier: Martel, 1836.
A collection, published from the manuscripts, of medieval documents of Montpellier: customs, oaths, and chronicles.

Turchini, Jean. "Salerne et Montpellier." Monspeliensis Hippocrates, IV (1961), 3-7.
A panegyric, rather than an historical examination, of the relations between Salerno and Montpellier.

Wickersheimer, Ernest. "Le discours de réception d'un bachelier en médecine montpelliérain au début du XVe siècle." Bulletin de la Société française d'histoire de la médecine, XIII (1910), 245-251.
This study of Heinrich Lamme's commencement address proves that, around 1400, Montpellier's medical faculty gave its own earlier authors --including Bernard de Gordon-- a place among the curriculum authors.

_____, "La question du judéo-arabisme à Montpellier." Janus, XXXI (1927), 465-573; and, revised and corrected, Monspeliensis Hippocrates, VI (1959), 3-7.
A critical and revisionist survey of the historiography on the Judeo-Arabic contribution to Montpellier's tradition.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

2. SCHOOLS, UNIVERSITIES, AND MEDICAL EDUCATION

Artelt, Walter. "Die ältesten Nachrichten über die Sektion menschlicher Leichen im mittelalterlichen Abendland." Abhandlungen zur Geschichte der Medizin und der Naturwissenschaften, Heft 34. Berlin: 1940.

Baader, Gerhard. "Zur Anatomie in Paris im 13. und 14. Jahrhundert." Medizinhistorisches Journal, III (1968), 40-53.
An examination of Ricardus Anglicus' Anatomia and the pseudo-Galenic Anatomia vivorum, which leads the author to the conclusion that the scholastic method was hindering the progress of anatomy at Paris.

Brunn, Walter von. "Die Bedeutung Salernos für die Medizin." Neue Jahrbücher für das klassische Altertum, Band 45-46 (1920), 381-394.

Bullough, Vern L. "The Development of the Medical Guilds at Paris." Medievalia et Humanistica, XII (1958), 33-40.

_____, The Development of Medicine as a Profession; The Contribution of the Medieval University to Modern Medicine. Basel: Karger, 1966.

_____, "The Medieval Medical University at Paris." Bulletin of the History of Medicine, XXXI (1957), 197-211.

_____, "Training of the Nonuniversity-Educated Medical Practitioners in the Later Middle Ages." Journal of the History of Medicine, XIV (1959), 446-458.

Campbell, Anna M. The Black Death and Men of Learning. New York: Columbia University Press, 1931.

Delaruelle, Etienne; Vicaire, M-H.; et al. Les Universités du Languedoc au XIIIe siècle. (Cahiers de Fanjeaux, 5). Toulouse: Privat, 1970.
A collection of stimulating colloquium papers by historians of the Midi, who deal with the development of the Languedoc studia generalia primarily in the context of religious history.

Delhaye, Philippe. "La Place des Arts libéraux dans les programmes scolaires du XIIIe siècle." Actes du IVe

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Congrès International de Philosophie Médiévale. ("Arts Libéraux et Philosophie au Moyen Âge": Montreal, 1967). Montreal, Paris: 1969, pp.161-173.

Denifle, Heinrich, ed. Chartularium Universitatis Parisiensis. Paris: Delalain, 1889, 6 vols.

_____, Die Entstehung der Universitäten des Mittelalters bis 1400. Berlin: Weidmannsche Buchhandlung, 1885, 2 vols.

Fournier, Marcel. Histoire de la Science du Droit en France; Vol.III. Les Universités françaises et l'enseignement du Droit en France au Moyen Âge. Paris: Larose et Fourcel, 1892.

_____, Les Statuts et privilèges des universités françaises depuis leur fondation jusqu'en 1789. Paris: Larose et Fourcel, 1890-1894, 4 vols.

Gabrieli, F. "La medicina arabe e la Scuola di Salerno." Salerno, I,3 (1967), 12-23.

Giacosa, Pietro. Magistri Salernitani nondum editi. Turin: 1901.
Supplements the Collectio Salernitana edited by Salvatore de Renzi (below).

Hartmann, F. Die Literatur von fruh- und hoch-Salerno. Leipzig: Binschwanger, 1919.

Irsay, Stephen d'. "The Black Death and the mediaeval Universities." Annals of Medical History, VII (1925), 220-225.

_____, Histoire des Universités françaises et étrangères des origines à nos jours. Paris: A.Picard, 1933-1935, 2 vols.

_____, "Les sciences de la nature et les universités médiévales." Archeion, Archivio di Storia della Scienza, XV (1933), 216-231.

_____, "Teachers and Textbooks of Medicine in the Mediaeval University of Paris." Annals of Medical History, VIII (1926), 234-239.
A valuable attempt to supply information about the curriculum between 1274 and 1395, a period for which no official booklists are extant for Paris.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Kibre, Pearl. "The Faculty of Medicine at Paris, Charlatanism, and Unlicensed Medical Practices in the Later Middle Ages." Bulletin of the History of Medicine, XXVII (1953), 1-20.

_____, "The Quadrivium in the Thirteenth Century Universities (with Special Reference to Paris)." Actes du IVe Congrès International de Philosophie Médiévale. Montreal, Paris: 1969, pp.175-192.

_____, The Nations in the Mediaeval Universities. Cambridge, Mass.: Mediaeval Academy of America, 1948. While concentrating on the Universities of Bologna and Paris, this well documented work sheds light on an important aspect of the medieval university in general.

_____, Scholarly Privileges in the Middle Ages; The Rights, Privileges, and Immunities, of Scholars and Universities at Bologna, Padua, Paris, and Oxford. Cambridge, Mass.: Mediaeval Academy of America, 1962.

Kristeller, Paul O. "Beiträge der Schule von Salerno zur Entwicklung der scholastischen Wissenschaft im 12. Jahrhundert." Artes Liberales; Studien und Texte zur Geistesgeschichte des Mittelalters, Band V (1959), 84-90.

_____, "Nuove fonti per la medicina Salernitana del secolo XII." Rassegna Storica Salernitana, Anno XVIII (1958), Nrs.1-4.

_____, "The School of Salerno; Its Development and Its Contribution to the History of Learning." Bulletin of the History of Medicine, XVII (1945), 138-194.

MacKinney, Loren C. "Medical Education in the Middle Ages." Journal of World History, II (1955), 833-855.

O'Malley, C.D., ed. The History of Medical Education. Berkeley, Cal.: University of California Press, 1970.

Paetow, Louis J. The Arts Course at Medieval Universities, With Special Reference to Grammar and Rhetoric. Urbana, Ill.: University of Illinois Press, 1910.

Parente, Pascal. The Regimen of Health of the Medical School of Salerno. New York: Vantage Press, 1967.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Portigliotti, Giuseppe. "Dissections clandestines au XIVe siècle." Aesculape, XIII (1923), 284-286.
Examining the trial of one master Albertus who, in 1319, exhumed a corpse, the author concludes that there were no dissections before those by Mundino at Bologna (1306-1310) and that, even thereafter, there were many objections to dissection. However, the author fails to emphasize the fact that, at least in the case of master Albertus, the exhumation rather than the dissection was the crime.

Puschmann, Theodor. A History of Medical Education From the Most Remote to the Most Recent Times. Trans. and ed. by Evan H. Hare. New York, London: Hafner, 1966 (facsimile of the 1891 edition).

Rashdall, Hastings. Universities of Europe in the Middle Ages. Rev. ed. by F.M. Powicke and E.B. Emden. London: Oxford University Press, 1936, 3 vols.

Renzi, Salvatore di, ed. Collectio Salernitana; Ossio documenti inediti e trattati di medicina appartenenti alla scuola medica Salernitana. Naples: Filiatre-Sevezio, 1852-1859, 5 vols.

Roos, Heinrich. "Le Trivium à l'université au XIIIe siècle." Actes du IVe Congrès International de Philosophie médiévale. Montreal, Paris: 1969, pp. 193-197.

Seidler, Eduard. Die Heilkunde des ausgehenden Mittelalters in Paris: Studien zur Struktur der spätscholastischen Medizin. Wiesbaden: Franz Steiner, 1967.

_____, "Die Spätscholastik im Urteil der Medizingeschichte." Archiv für Geschichte der Medizin, XLVIII (1964), 299-322.

Sudhoff, Karl. "Constantin, der erste Vermittler muslimischer Wissenschaft ins Abendland und die beiden Salernitaner Frühscholastiker Maurus und Urso als Exponenten dieser Vermittlung." Archeion, XIV (1932), 359-369.

_____, "Gedanken über die Ausbildung chirurgischer Operateure an den Hochschulen im 13. Jahrhundert." Mitteilungen zur Geschichte der Medizin und Naturwissenschaften, XVII (1918), 294-295.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, "Genetische Zusammenhänge und regionale Bedingtheiten in der Medizin des 12. und 13. Jahrhunderts." Archiv für Geschichte der Medizin, XXI (1929), 63-74.

_____, "Zum Regimen Sanitatis Salernitanum." Archiv für Geschichte der Medizin, VIII (1915), 344-355; IX (1916), 202-222; X (1917), 88-96; XI (1918), 111-123; XII (1919), 155-167.

_____, "Salerno, eine mittelalterliche Heil- und Lehrstelle am tyrrhenischen Meere." Archiv für Geschichte der Medizin, XXI (1929), 43-62.

Vaccaro, Leopold. "The School of Salerno." Medical Life, XXII (1929), 271-284.

Weisheipl, James. "Classification of the Sciences in Medieval Thought." Mediaeval Studies, XXVII (1965), 54-90.

_____, "The Place of the Liberal Arts in the University Curriculum During the XIVth and XVth Centuries." Actes du IVe Congrès International de Philosophie Médiévale. Montreal, Paris: 1969, pp.209-213.

Wickersheimer, Ernest. "Autour du 'Régime de Salerne'." Scalpel, L (1952), 1-12.

Withington, Edward T. "Medicine in Mediaeval Monasteries." Medical Magazine, V (1896), 508-519.

3. BERNARD DE GORDON

Astruc, Jean. "Bernardus Gordonius, ou plutôt de Gordonio." Mémoires pour servir à l'histoire de la Faculté de Médecine de Montpellier. Paris: Cavelier, 1767, pp.176-181.

_____, "Notice sur Bernard de Gordon." Ephémerides médicales de Montpellier, III (1826), i-iv.
Rather than by Astruc, this note is by the editor of the above journal, though based on Astruc's findings.

Bell, H.I. "The Bibliography of Bernard de Gordon's 'De conservatione vitae humanae'." 17th International Congress of Medicine. London: 1913, pp.325-337.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Carlowitz, Constantin Hans. Der Lepraabschnitt aus Bernhard von Gordons 'Lilium medicinae' in mittelalterlicher deutscher Uebersetzung. Leipzig (diss.): Peter Nache, 1913.
Edition, with introduction and some annotation (but without critical apparatus) of a German translation of (part of?) the Lilium, made about 1350 and contained in Vienna MS Lat.[sic] 2864, fols. 44v-56r. On pp.42-45 of this dissertation, the author gives a useful vocabulary of medicines.

Chevalier, Cyr Ulysse. Répertoire des Sources historiques du moyen âge; Bio-Bibliographie. Vol.I, Paris: Picard, 1905, p.67.
Gives some older bibliographical references on Bernard de Gordon.

Eichholtz, Martin. Zahnheilkundliches bei Bernhard von Gordon. Leipzig diss.: 1923.

Güntz, Edmund. "Aussatz und Syphilis nach den Quellen des Bernhardus Gordonius." Archiv für Dermatologie und Syphilis, II (1870), 59-77.
The author observes that Bernard's description of leprosy actually gives the symptoms of syphilis. This is for the author an argument for the view that there was syphilis in Europe before 1492.

Herndon, Thomas. "Bernard Gordon Manuscripts in the United States." Bulletin of the History of Medicine, XXXIV (1960), 80-81.

Kollert, Erna Margarete. Zwei Compendien 'de neutralitatibus decidenciae' von Bernhard Gordon und Johann Tornamira. Leipzig diss.: Leiner, 1924.

Lennox, William Gordon. "Bernard de Gordon on Epilepsy." Annals of Medical History, III (1941), 372-383.

Littré, Emile. "Bernard de Gordon, Médecin." Histoire littéraire de la France, XXV (1869), 321-337.

McVaugh, Michael. "A Note on Relations Between Two Montpellier Masters: Arnald of Villanova and Bernard Gordon." Typescript, kindly sent to me by the author, January 1971.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

O'Neill, Ynez. "Dates in the Printed Editions of the Lilium Medicinae." Sudhoffs Archiv, IL (1965), 86-89.

_____, "The History of the Publication of Bernard of Gordon's Liber de Conservatione vitae humanae." Sudhoffs Archiv, IL (1965), 269-279.

Pagel, Julius L. "Ueber die Grade der Arzneien nach einer bisher ungedruckten Schrift des Bernhard von Gordon aus dem Jahre 1303." Pharmaceutische Post, XXVIII (1895), 65-67, 131-133, 142-144, 180-182, 221-225, 257-262.
Ed., with German tr. and introduction, of Bernard's De gradibus, from Erfurt Amploniana MSS Q.[sic, rather F.] 236 and 237, and Berlin MS Q.[sic, rather F.] 186.

_____, "Ueber den Theriak nach einer bisher ungedruckten Schrift des Bernhard von Gordon." Pharmaceutische Post, XXVII (1894), 205-206, 220-224, 235-237, 257-262; and [the Latin text of the last chapter of Bernard's treatise, in] Die angebliche Chirurgie des Heben Mesue Junior. Berlin, 1893, p.144.
Ed., with German tr. and introduction, of Bernard's De tyriaca, from Erfurt Amploniana MSS F.270 and Q.227. Contrary to the assertion of Pagel, however, this treatise had been printed in 1491 and in 1500 (see Appendix II).

Sarton, George. "Lilium Medicinae." Mediaeval Studies in Honor of J.D.M.Ford. Cambridge, Mass.: Harvard University, 1948, pp.239-256.
Briefly examines Bernard's Lilium, Gilbertus Anglicus' Laurea, and John of Gaddesden's Rosa, without elaborating a comparison between these compendia.

Sudhoff, Karl. "Das dem Magister Johannes de Conflente gewidmete Regimen Acutarum Aegritudinum des Bernhard von Gordon." Mitteilungen zur Geschichte der Medizin und der Naturwissenschaften, XIV (1915), 93.

_____, "Mittelalterliche Einzeltexte zur Beulenpest vor ihrem pandemischen Auftreten 1347/48." Historische Studien und Skizzen zu Natur- und Heilwissenschaften (Festgabe Georg Sticker). Berlin, 1930, pp.39-48.
Concludes, pp.45-48, with excerpts from Bernard's Regimen acutorum.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, "Zur Schriftstellerei Bernhards von Gordon und deren zeitlicher Folge; Eine Handschriftenstudie." Archiv für Geschichte der Medizin, X (1917), 162-188.
Traces the relative and absolute chronology of Bernard's works, on the basis of a comparative study of MSS in German libraries and incunabula.

Töply, Robert von. "Die chronologische Reihenfolge der Schriften des Bernard Gordon." Mitteilungen zur Geschichte der Medizin und der Naturwissenschaften, VI (1907), 94-95.
Superseded by Sudhoff's study above.

Winau, Rolf. "Ein Lilium medicinae-Handschrift aus der Besitz des Nikolaus von Kues." Medizinhistorisches Journal, I (1966), 24-30.
A most interesting article on the oldest known MS of Bernard's Lilium, that once belonged to Nicholas of Cusa (1401-1464), and that has marginal notes by Nicholas: British Museum Harleian MS 3698, completed on 5 February 1305 [rather than 1304, as Winau states] by a Swabian student at Montpellier, Heinrich Hembat.

4. THIRTEENTH- AND FOURTEENTH-CENTURY MEDICAL AUTHORS

Listed here, with a special emphasis on more recent bibliography, are some studies on medical authors, while the writings of Montpellier authors may be found in Appendix I.
The studies are listed alphabetically according to the first name of the medieval author examined in each study.

AEGIDIUS CORBOLIENSIS

Irsay, Stephen D'. "The Life and Works of Gilles de Corbeil." Annals of Medical History, VII (1925), 362-378.

Rath, G. "Gilles de Corbeil as Critic of his Age." Bulletin of the History of Medicine, XXXVIII (1964), 133-138.

ALPHONSUS CORDUBENSIS

Sudhoff, Karl. "Epistola et Regimen Alphontii Cordubensis de pestilentia." Archiv für Geschichte der Medizin, III (1909), 222-226.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ARMENGAUDUS BLASIUS

Batllori, Miguel. "La documentación de Marsella sobre Arnau de Vilanova y Joan Blasi." Analecta Sacra Tarraconensia, XXI (1948), 75-119.
Establishes the relationship of Armengaud as the nephew of Arnold of Villanova.

Renan, Ernest. "Armengaud, Fils de Blaise, Médecin." Histoire Littéraire, XXVIII (1881), 127-138.

Thorndike, Lynn. "The Date of the Translation by Ermengaud Blasius of the Work on the Quadrant by Profatius Judaeus." Isis, XXVI (1937), 306-309.

ARNOLDUS DE VILLANOVA

Batllori, Miguel. "Arnau de Vilanova antiscolastique d'après les textes catalans et italiens." Bibliotheca Pontificii Athenaei Antoniani, VII (1951), 567-581.

_____, "Arnau de Vilanova en Italie, 1267?-1276?" Analecta Sacra Tarraconensia, XXIII (1950), 83-101.

_____, "Nuevos datos biográficos sobre Arnaldo de Vilanova." Archivo Iberoamericano de Historia de la Medicina, VIII (1956), 235-237.

_____, "Orientaciones bibliograficas para el estudio de Arnau de Vilanova." Pensamiento, X (1954), 311-323.

Carreras Y Artau, Joaquin. "Arnaldo de Vilanova, apologista antijudaico." Sefarad, VII (1947), 49-61.

_____, "La llibreria d'Arnau de Vilanova." Analecta Sacra Tarraconensia, IX (1933), 63-84.

_____, Relaciones de Arnau de Vilanova con los Reyes de la casa de Aragon. Barcelona: Real Academia de Buenas Letras, 1955.

Diepgen, Paul. "Arnald von Villanova und die Medizin des Mittelalters." Lychnos. Lärdomshistoriska Samfundets Årsbok. Uppsala and Stockholm, 1939, pp.222-242.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, Arnald von Villanova als Politiker und Laientheologe. Berlin and Leipzig, 1909.

_____, "Studien zu Arnald von Villanova." Archiv für Geschichte der Medizin, III (1909), 115-130, 188-196; IV (1910), 369-396; V (1911), 88-120; VI (1913), 380-391.

_____, "Studien zu Arnald von Villanova." Medizin und Kultur. Stuttgart: 1938, pp.108-185.

Dulieu, Louis. "Arnaud de Villeneuve et la médecine de son temps." Montpellier médical, 3e série, tome LXIII (1963), No.1.

Hauréau, B. "Arnaud de Villeneuve, Médecin et chimiste." Histoire Littéraire, XXVIII (1881), 26-126, 487-490.

Koch, M.P., and Kiel, G. "Die spätmittelalterliche Gesundheitslehre des 'Herrn Arnolds von Mumpelier'." Sudhoffs Archiv, L (1966), 361-374.

Lalande, Emmanuel. Arnaud de Villeneuve, sa vie et ses oeuvres. Paris diss.: Chamuel, 1896.
This work is no longer reliable, according to more recent scholars.

McVaugh, Michael. "Arnald de Villanova and Bradwardine's Law." Isis, LVIII (1967), 56-64.

Montoliu Y de Togores, Manuel de. Ramon Lull i Arnau de Vilanova. Barcelona: Alpha, 1958.

Paniagua, Juan Arellano. "L'arabisme à Montpellier dans l'oeuvre d'Arnau de Vilanova." Scalpel, CXVII (1964), 631-637.

_____, "Arnau de Vilanova, medico escolastico." Asclepio, XVIII-XIX (1966-67), 533-552.

_____, "La médecine arabe à Montpellier dans l'oeuvre d'Arnau de Villanova." XVIe Congrès International d'Histoire de la Médecine, Résumé des Communications. Montpellier, 1958, p.23.

_____, Estudios y notas sobre Arnau de Vilanova. Madrid: Consejo superior de investigaciones scientificas, 1963.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, "Importancia europea de la medicina de Arnau de Vilanova." Archivo Iberoamericano de Historia de la Medicina, VIII (1956), 305-314.

_____, "Vida de Arnaldo de Vilanova." Archivo Iberoamericano de Historia de la Medicina, III (1951), 3-83.

Pansier, P. "Arnaldi de Villanova Libellus de Regimine de Confortatione Visus." Mémoires de l'Académie de Vaucluse, sér.2, II (1903), 1-19.
The introduction gives a very depreciatory assessment of Arnold's scholarship, as primarily plagiarist.

Payne, Joseph F. "Arnold de Villa Nova on the Therapeutic Use of Human Blood." Janus, VIII (1903), 432-435, 477-483.

Perlitz, Walter. Die Augenheilkunde des Arnald von Villanova. Berlin: A.W.Schade, 1904.

Rennau, Therese. Die Gynäkologie des Arnald von Villanova mit Erläuterungen. Freiburg-in-Breisgau diss., 1912.

Sigerist, Henry E. "Bedside Manners in the Middle Ages; the Treatise De cautelis medicorum, attributed to Arnold of Villanova." Quarterly Bulletin of Northwestern University Medical School, X (1946), 138-143.

Storch, E.P.von, and T.J.C. "Arnold of Villanova on Epilepsy." Annals of Medical History, X (1938), 251-260.

Verrier, Rėné. Etudes sur Arnaud de Villeneuve, 1240(?)-1311. Leiden: E.J.Brill, 1947-49, 2 vols.

BARTHOLOMEUS ANGLICUS

Walsh, James J. "Clinical Medicine in the Middle Ages: Bartholomew's De proprietatibus rerum." Medical Life, XXXIX (1932), 365-382.

_____, tr. "De proprietatibus rerum (Book VII on medicine). Tr.and annotated, with an introductory essay." Medical Life, XL (1933), 449-602.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

GILBERTUS ANGLICUS

Handerson, Henry E. Gilbertus Anglicus; Medicine of the Thirteenth Century, With a Biography of the Author. Cleveland, Ohio: Cleveland Medical Library Association, 1918.

GIRARDUS BITURICENSIS

Pignol, J. "Géraud du Berry et l'Ecole de Médecine de Montpellier au commencement du treizième siècle." Annales du Midi, XI (1889), 395-397.

GUALTERUS AGULINUS

Diepgen, Paul. ed. Summa medicinalis; nach den münchener Codex Lat.325 und 13124 erstmalig ediert mit einer vergleichenden Betrachtung älterer medizinischer Kompendien des Mittelalters. Leipzig: J.A.Barth, 1911.

Pfeffer, Julius. ed. Das Compendium urinarum des Gualterus Agulinus (XIII.Jahrhundert) nach Erfurter codices zum ersten male herausgegeben nebst einer literarhistorischen Einleitung über Uroscopie im Altertum und Mittelalter. Berlin: G.Schade, 1891.

GUILLELMUS DE BRIXIA

Sudhoff, Karl. "Eine Chirurgie Wilhelmus von Brescia (Guglielmus Corvi)." Beiträge zur Geschichte der Chirurgie im Mittelalter, 2.Teil: Studienheft XII (1918), 419-421 (or Studien zur Geschichte der Medizin, Heft XII).

GUILLELMUS DE CONGENIS

Sudhoff, Karl. "Domini et magistri Willehelmi de Congenis, Burgensis in Montpellier 'Scriptum cirurgiae', sowie dazugehörige 'Notulae cirurgiae' eines Schülers." Beiträge zur Geschichte der Chirurgie im Mittelalter, 2.Teil: Studienheft XII (1918), 297-384 (or Studien zur Geschichte der Medizin, Heft XII).

GUY DE CHAULIAC

Aimes, Alexandre. "Un illustre maître montpelliérain: Guy de Chauliac, le père de la chirurgie moderne." Monspeliensis Hippocrates, V (1962), 3-14.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Brunn, Walter von. "Die Stellung des Guy de Chauliac in der Chirurgie des Mittelalters," Archiv für Geschichte der Medizin, XIV (1921), 65-106.

Cowley, Arthur E. "The Magna Chirurgia of Guy de Chauliac." Essays in History Presented to Reginald Lane Poole, ed.H.W.Davis. Oxford, 1927.
I have been unable to examine this possibly important study.

Michler, Markwart. "Guy de Chauliac als Anatom." Medizinische Monatschrift, XVIII (1964), 306-311.

Ogden, Margaret S. "Guy de Chauliac's Theory of the Humours." Journal of the History of Medicine and Allied Sciences, XXIV (1969), 272-291.

_____,ed. The Cyrurgie of Guy de Chauliac. Vol.I. Text. (Early English Text Society 265). London: Oxford University Press, 1971.
The companion volume, which will contain an introduction, commentary, and a glossary, is in preparation. When complete, this edition of the Middle English tr. of Guy's Inventarium will be an invaluable contribution to scholarship.

Tabanelli, Mario. Un secolo d'oro della chirurgia francese (1300). Vol.II. Guy de Chauliac. (Collana di Monografie di 'Romagna Medica', vol.28). Forli: Valbonesi, 1970.

HENRI DE MONDEVILLE

Littré, Emile. "Henri de Mondeville, un des chirurgiens du Roi Philippe le Bel." Histoire Littéraire, XXVIII (1881), 325-352.

Tabanelli, Mario. Un secolo d'oro della chirurgia francese (1300). Vol.I. Henry de Mondeville. (Collana di Monografie di 'Romagna Medica', vol.26). Forli: Valbonesi, 1969.

JOHN OF GADDESDEN

Bashford, Henry H. "Gilbert and John." The Harley Street Calendar. London: 1929, pp.1-22.

Cholmeley, Henry P. John of Gaddesden and the Rosa Medicinae. Oxford: Clarendon Press, 1912.

Dock, George. Printed Editions of the Rosa Anglica of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

John of Gaddesden. Reprint from Janus, XII (1907).

Lennox, William G. "John of Gaddesden on Epilepsy." Annals of Medical History, I (1939), 283-307.

JOHANNES HAKE VON WESTERHOLT

Wenck, Karl. "Johann von Göttingen, Arzt, Bishof und Politiker zur Zeit Kaiser Ludwigs des Bayern." Archiv für Geschichte der Medizin, XVII (1925), 141-156.

NICHOLAS OF POLAND

Diels, H. "Ueber die Schrift Antipocras." Sitzungsberichte der preussischen Akademie der Wissenschaften, XXII (1916), 376-394.

Ganszyniec, R. Brata Mikolaja z Polski Pisma Lekarskie (The Medical Writings of brother Nicholas of Poland). Poznan, 1920.

Johnsson, J.W.S. "Les Experimenta magistri Nicolai." Bulletin de la Société française d'Histoire de la Médecine, X (1911), 269-290.

Sudhoff, Karl. "Antipocras; Streitschrift für mystische Heilkunde in Versen des Magisters Nikolaus von Polen." Archiv für Geschichte der Medizin, IX (1916), 31-52.

Szpilczynski, Stanislaw. "Considérations sur les conceptions pseudo-scientifiques des pratiques de Nicolas de Pologne (XIIIe siècle)." XVIe Congrès international d'Histoire de la Médecine, Résumé des communications. Montpellier, 1958, pp.30-31.

PETER OF ABANO

Siraisi, Nancy J. "The Expositio Problematum Aristotelis of Peter of Abano." Isis, LXI (1970), 321-339.

Thorndike, Lynn. "Translations of Works of Galen from the Greek by Peter of Abano." Isis, XXXIII (1942), 649-653.

PETRUS HISPANUS

Ober, W.B., and Conway, A.J. "John XXI, Ophthalmologist, Professor of Physic, Pope." New England Journal of Medicine, CCLXXIII (1965), 39-40.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Schipperges, Henri. "Eine noch nicht veröffentliche 'Summa medicinalis' des Petrus Hispanus in der Biblioteca Nacional zu Madrid." Sudhoffs Archiv, LI (1967), 187-189.

RAMON LULL

Amadou, Robert. Raymond Lulle et l'Alchimie; Introduction au Codicille avec notes et glossaire. Paris: La haute Science, 1953.

Barbera, Juan Saiz. Raimundo Lulio; Genio de la Filosofia y Mistica Espanola. Madrid: E.P.E.S.A., 1963.

Colomer, Eusebio. "Las Artes Liberales en la concepcion cientifica y pedagogica de Ramon Llull." Actes du IVe Congrès International de Philosophie Médiévale. Montréal, Paris: 1969, pp.683-690.

Hillgarth, J.N. Ramon Lull and Lullism in Fourteenth-Century France. New York, London: Oxford University Press, 1972.

Llinarès, Armand. "Les conceptions physiques de Raymond Lulle: de la théorie des quatre éléments à la condamnation de l'alchimie." Etudes Philosophiques, XXII (1967), 439-444.

_____, Raymond Lulle; Philosophe de l'action. Paris: Presses universitaires de France, 1953.

Yates, Francis A. "The Art of Ramon Lull." Journal of the Warburg and Courtauld Institute, XVII (1954), 115-123.

RICHARDUS ANGLICUS

Beusing, H.H. Leben und Werke des Richardus Anglicus. Leipzig diss.: 1922.

SHEMTOV BEN JIZCHAQ

Muntner, Suessman. "Un traducteur hébreu du Aboul-Kasim traitant de l'instruction et de l'éthique des médecins de la France méridionale au XIIIe siècle." XVIe Congrès International d'Histoire de la Médecine, Résumé des communications. Montpellier, 1958, p.21.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

5. MEDICINE AND ALLIED SCIENCES

Afnan, S.M. Avicenna; His Life and Works. London: Allen and Unwin, 1958.

Anawati, Georges C. Drogues et Médicaments dans l'Antiquité et le Moyen Age. Cairo: Dar-al-Maaref, 1959.

Artelt, Walter. "Arzt und Leibesübungen in Mittelalter und Renaissance." Medizinhistorisches Journal, III (1968), 222-242.

Aschner, Bernard. "Empiricism and Rationalism in Past and Present Medicine." Bulletin of the History of Medicine, XVII (1945), 269-286.
A condensed but complete survey of the dilemma since Antiquity, with some anti-rationalist bias.

Shah, Mazhar H. tr. and ed. The General Principles of Avicenna's Canon of Medicine [Part I]. Karachi: Naveed Clinic, 1966.

Baader, G. "Zur Ueberlieferung der lateinischen medizinischen Literatur des frühen Mittelalters." Forschung, Praxis, Fortbildung, XVII (1966), 139-141.

Beek, Henri H. Waanzin in the Middeleeuwen; Beeld van de Gestoorde en Bemoeienis met de Zieke. Haarlem: De Toorts, 1969.

Birkenmajer, A. "Le rôle joué par les médecins et les naturalistes dans la réception d'Aristote aux XIIe et XIIIe siècles." La Pologne au VIe Congrès International des Sciences Historiques. Warsaw, 1930, pp.123-134.

Brunel, Clovis. "Recettes médicales du XIIIe siècle en langue de Provence." Romania, VII (1962), 3-10.

Brunhölzl, Franz. "De more medicorum; Ein parodistisch-satirisches Gedicht des 13. Jahrhunderts." Sudhoffs Archiv, XXXIX (1955), 289-315.

Bullough, Vern L. "Status and Medieval Medicine." Journal of Health and Human Behavior, II (1961), 12-23.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Campbell, Donald. Arabian Medicine and Its Influence on the Middle Ages. London: Kegan Paul, 1926, 2 vols.

Chevalier, A. "Constantinus Africanus and the Influence of the Arabs on Salerno." Ciba Symposia, V (1944), 1725-1731.

Chrohns, Hjalmar. "Zur Geschichte der Liebe als Krankheit." Archiv für Kulturgeschichte, III (1905), 66-86.

Clements, R.D. "Avicenna, the Prince of Physicians." Minnesota Medicine, XLVIII (1965), 1567-1568; XLIX (1966), 187-192.

Costantino l'Africano; L'Arte Universale della Medicina (Pantegni) Parte I-Libro i. Ed. and tr.by Marco T. Malato and Umberto de Martini. Rome: Istituto di Storia della Medicina dell'Università di Roma, 1961.

Diepgen, Paul. "Die Bedeutung des Mittelalters für den Fortschritt in der Medizin." Essays on the History of Medicine, presented to Karl Sudhoff. Oxford and Zürich: Seldwyla, 1924, pp.99-120.

_____, Frau und Frauenheilkunde in der Kultur des Mittelalters. Stuttgart: G.Thieme, 1963.

_____, "Der Kirchenlehrer Augustin und die Anatomie im Mittelalter." Centaurus, I (1951), 206-211.

_____, Traum und Traumdeutung als medizinisch-naturwissenschaftliches Problem im Mittelalter. Berlin: J.Springer, 1912.

_____, Ueber den Einflusz der autoritativen Theologie auf die Medizin des Mittelalters. Wiesbaden: Franz Steiner, 1958.

Dilleman, Georges. "La pharmacopée au Moyen Age; I.Les ouvrages." Revue d'Histoire de la Pharmacie, XIX (1968), 199-211.

Doutrepont, Georges. "La littérature et les médecins en France." Bulletin de l'Académie Royale de Langue et de Littérature française de Belgique, XII (1933), 137-177.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Elsässer, Günter. "Ausfall des Coitus als Krankheitsursache in der Medizin des Mittelalters." Abhandlungen zur Geschichte der Medizin und der Naturwissenschaften, Heft 3. Leipzig, 1934.

Emery, Richard W. "The Black Death of 1348 in Perpignan." Speculum, XLII (1967), 611-623.

Fort, George F. Medical Economy During the Middle Ages; A Contributinn to the History of European Morals from the Time of the Roman Empire to the Close of the 14th Century. New York: Kelley, 1970.
This is a reprint of the 1883 edition, with a new introduction by Morris H.Saffron.

Galenus, Claudius. Opera Omnia. ed. Karl G. Kühn. Leipzig, 1821-1833, 20 vols. in 22.

Goichon, A.M. The Philsophy of Avicenna and Its Influence on Medieval Europe. Tr. from the French with notes, annotations, and a preface by M.S.Khan. Delhi, India: Motilal Banarsidass, 1969.

Goltz, Dietlinde. "Versuch einer Grenzziehung zwischen 'Chemie' und 'Alchemie'." Sudhoffs Archiv, LII (1968), 30-47.

Graham, Thomas F. Medieval Minds: Mental Health in the Middle Ages. Preface by Robert B. McLeod. London: Allen and Unwin, 1967.

Gruner, Oskar Cameron. A Treatise on the Canon of Medicine of Avicenna, Incorporating a Translation of the First Book. London: Luzac & Co., 1930.

Guillemain, Bernard. "Les Français du Midi à la Cour pontificale d'Avignon." Annales du Midi, LXXIV (1962), 29-38.

Hall, Thomas S. Ideas of Life and Matter. Chicago: University of Chicago Press, 1969.

_____, "Life, Death and the Radical Moisture; A Study of Thematic Pattern in Medieval Medical Theory." Clio Medica, VI (1971), 3-23.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Hariz, J. La part de la médecine arabe dans l'évolution de la médecine française. Paris diss.: Faculté de Médecine, 1922.

Harrison, R.K. "Healing Herbs of the Bible." Janus, L (1961), 9-54.

Heidel, William A. Hippocratic Medicine, Its Spirit and Method. New York: Columbia University Press, 1941.

Henslow, G. Medical Works of the Fourteenth Century, Together with a List of Plants Recorded in Contemporary Writings, with their Identification. London: Chapman & Hall, 1899.
Useful because of its list of plants.

Hippocrates. The Theory and Practice of Medicine. Introduction by Emerson C.Kelly. (The Science Classics Library). New York: Citadel Press, 1964.
A very convenient paperback edition of Francis Adams' 1849 translation of the Hippocratic writings.

Hoffmann, Gerda. "Beiträge zur Lehre von der durch Zauber verursachten Krankheit und ihre Behandlung in der Medizin des Mittelalters." Janus, XXXVII (1933), 129-144, 179-192, 211-217.

Holcomb, R.C. "The Antiquity of Congenital Syphilis." Bulletin of the History of Medicine, X (1941), 148-167.

Illgen, Herbert Otto. Die abendländischen Rhazes-Kommentatoren des XIV. bis XVII. Jahrhundert. "Auszug aus der Inaugural-Dissertation." Leipzig: E.Lehmann, 1921.

Isaac Judeus. "Guide for Physicians (Musar Harofim); Tr. from the Hebrew, with Introduction by Saul Jarcho." Bulletin of the History of Medicine, XV (1944), 180-188.

Isidorus of Seville. The Medical Writings; An English Translation with an Introduction and Commentary by William D.Sharpe. Philadelphia: American Philosophical Society, 1964.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Jarcho, Saul. "Galen's Six Non-Naturals: A Bibliographic Note and Translation." Bulletin of the History of Medicine, XLIV (1970), 372-377.
Concludes that the list of six factors influencing health was derived from Galen, but that the term 'non-naturals' probably was coined later.

Jarry, Daniel. "Diététique et hygiène aux XIIe et XIVe siècles." Languedoc Médical, XLI (1958), 5-24.

Jaulmes, Paul and Rose. "La rectification de l'alcool, invention languedocienne." Monspeliensis Hippocrates, XLVI (1969), 17-29.

Joly, Robert. "La traduction latine du livre II du Régime et l'unité de la tradition hippocratique." L'Antiquité classique, XXXIII (1964), 45-57.
From a critical comparison of texts, namely a Latin translation of the sixth century and the two oldest Greek MSS, the author concludes that the Latin translations deviated from the original text earlier than has been thought.

Kibre, Pearl. "Hippocratic Writings in the Middle Ages." Bulletin of the History of Medicine, XVIII (1945), 371-412.

Kirsch, Eberhard. "Avicennas Lehren von den Sexualleiden." Melemata; Festschrift für Werner Leibbrand. Mannheim, 1967, pp.49-56.

Kottek, Samuel. "L'Art de conserver la santé. Essai de comparison entre un texte de Maimonide (Hilchot Deot, chap.4) et le Regimen Sanitatis de Salerne." Revue d'Histoire de la Médecine hébraique, LXXXVII (1970), 5-9.

Lain, Pedro Entralgo. Mind and Body; Psychomatic Pathology: A Short History of the Evolution of Medical Thought. Tr.from the Spanish by Aurelio M.Espinosa. New York: Kenedy, 1956.

Lawn, Brian. The Salernitan Questions; An Introduction to the History of Medieval and Renaissance Problem Literature. Oxford: Clarendon Press, 1963.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Levey, M. "Medical Deontology in Ninth-Century Islam." Bulletin of the History of Medicine, XXI (1966), 358-373.

Louis, A. "Analyse des bibliothèques de deux médecins malinois du XVe siècle." Janus, LIII (1966), 241-305.
Of these two physicians, one owned two copies of Bernard's Lilium medicine, while the other owned one copy.

MacKinney, Loren C. "Dynamidia in Medieval Medical Literature." Isis, XXIV (1936), 400-414.

_____, "Medical Ethics and Etiquette in the Early Middle Ages: The Persistence of Hippocratic Ideals." Bulletin of the History of Medicine, XXVI (1952), 1-31.
This study emphasizes the continuity of Hippocratic ethics throughout the early Middle Ages, and warns against the assumption that the concern with medical ethics in the later Middle Ages was a product of Salerno.

_____, "Medieval Medical Dictionaries and Glossaries." Medieval and Historiographical Essays in Honor of James Westfall Thompson. Chicago, 1938, pp.240-268.

McVaugh, Michael. "'Apud Antiquos' and Mediaeval Pharmacology." Medizinhistorisches Journal, I (1966), 16-23.

_____, "The Humidum Radicale in Thirteenth-Century Medicine." Typescript, kindly sent to me by the author, October 1972.

_____, The Mediaeval Theory of Compound Medicines. Unpublished Ph.D. dissertation, Princeton University, 1964.

Mendelsohn, E. Heat and Life. Cambridge, Mass.: Harvard University Press, 1964.

Meyer, Paul. "Traités en vers provençaux sur l'astrologie et la géomancie." Romania, XXVI (1897), 225-275.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Møller-Christensen, V. "Evidence of Tuberculosis, Leprosy and Syphilis in Antiquity and the Middle Ages." XIXth International Congress of the History of Medicine (Basel, 1964); Aktuelle Probleme. Basel; Karger, 1966, pp.229-237.

Neuburger, Max. "Vis Mediatrix Naturae." Medical Life, XXXIX (1932), 657-692.

Niebyl, Peter H. "The Non-Naturals." Bulletin of the History of Medicine, XLV (1971), 486-492.
Traces the development of the idea of "non-natural" medical elements, from Galen through the nineteenth century.

Niedling, Justus. Die mittelalterlichen und frühzeitigen Kommentare zur Techne des Galenos. Leipzig diss., 1924.

Pansier, Pierre. "La pratique de l'ophthalmologie dans le Moyen Age latin." Janus, IX (1904), 3-26.

Parenti, F. "Analisi dei rapporti fra medicina, magia e superstizione nel medioevo." Pagine di storia della Medicina, X (1966), 47-51.

Pinès, Jacques. "Des médecins juifs au service de la Papauté du XIIe au XVIIe siècle." Revue d'histoire de la Médecine hébraïque, LXIX (1965), 123-132.

Pirkner, E.H. "Epilepsy in the Light of History." Annals of Medical History, I (1929), 453-480.

Ranking, G.S.A. "The Life and Works of Rhazes." XVIIth International Congress of Medicine. London, 1913, pp.237-268.

Rather, L.J. "The 'Six Things Non-Natural': A Note on the Origins and Fate of a Doctrine and Phrase." Clio Medica, III (1968), 337-347.

Riddle, John M. "The Introduction and Use of Eastern Drugs in the Early Middle Ages." Sudhoffs Archiv, XLIX (1965), 185-198.

_____, "Lithotherapy in the Middle Ages: Lapidaries Considered as Medical Texts." Pharmacy in History, XII (1970), 39-50.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

_____, "Pomum ambrae; Amber and Ambergris in Plague Remedies." Sudhoffs Archiv, XLVIII (1964), 111-122.

Robbins, Rossell Hope. "Medical Manuscripts in Middle English." Speculum, XLV (1970), 393-415.

_____, "The Physician's Authorities." Studies in Language and Literature in Honour of Margaret Schlauch. Warsaw, 1966, pp.335-341.

Robinson, Victor. "Rhazes." Medical Life, XXVIII (1921), 206-218.

Rosen, Edward. "Did Roger Bacon Invent Eyeglasses?" Archives internationales d'histoire des sciences, XXVI (1954), 3-15.
The author concludes that eyeglasses were invented two decades after Bacon's Opus majus, and that perhaps Bacon's writings may have inspired the unknown inventor.

_____, "The Invention of Eyeglasses." Journal of the History of Medicine and Allied Sciences, XI (1956), 13-46, 183-218.

Rosenthal, F. "'Life is short, the art is long': Arabic Commentaries on the First Hippocratic Aphorism." Bulletin of the History of Medicine, XL (1966), 226-245.

Sa'di, Lutfi M. "A Bio-Bibliographical Study of Hunain Ibn Ishaq al-Ibadi (Johannitius, 809-877 A.D.)." Bulletin of the History of Medicine, II (1934), 409-446.

Schipperges, Heinrich. Die Assimilation der arabischen Medizin durch das lateinische Mittelalter. Wiesbaden: Steiner, 1964.

_____, "Die frühen Uebersetzer der arabischen Medizin in chronologischer Sicht." Sudhoffs Archiv, XXXIX (1955), 53-93.

_____, "Melancolia als ein mittelalterlicher Sammelbegriff für Wahnvorstellungen." Studia generalia, XX (1967), 723-736.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Siegel, R.E. "Clinical Observation in Hippocrates; An Essay on the Evolution of the Diagnostic Art." Journal of the Mount Sinai Hospital of New York, XXXI (1964), 285-303.

Sigerist, Henry E. "Masse und Gewichte in den Medizinischen Texten des frühen Mittelalters." Kyklos, III (1930), 439-444.

Soubiran, A. "L'Islam conservatoire de la médecine." Aesculape, XLVIII (1965), 2-45.

Stannard, Jerry. "The Herbal as a Medical Document." Bulletin of the History of Medicine, XLIII (1969), 212-220.

Steinschneider, Moritz. "Constantinus Africanus und seine arabischen Quellen." Archiv für Pathologische Anatomie und Physiologie, XXXVII (1866), 351-410.
This study, while important, was largely superseded by Lynn Thorndike's discussion of Constantinus in A History of Magic and Experimental Science, I (New York, 1923), pp.742 ff.

Sticker, G. "Lepra im Mittelalter." XVIIth International Congress of Medicine, London, 1913, pp.37-39.

Sudhoff, Karl. "Fünf ansteckende Krankheiten." Mitteilungen zur Geschichte der Medizin und der Naturwissenschaften, XIV (1915), 405-406.

_____, "Zur Geschichte der Lehre von der kritischen Tagen im Krankheitsverlaufe." Archiv für Geschichte der Medizin, XXI (1929), 1-22.

_____, "Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'schwarzen Todes' 1348." Archiv für Geschichte der Medizin, IV (1910), 191-222, 389-424; V (1911), 36-87.

_____, "Die Verse Isidors von Sevilla auf dem Schrank der medizinischen Werke seiner Bibliothek." Archiv für Geschichte der Medizin, XXI (1929), 23-27.

Talbot, C.H. Medicine in Medieval England. London: Oldbourne, 1967.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Temkin, Owsei. The Falling Sickness; A History of Epilepsy from the Greeks to the Beginning of Modern Neurology. Baltimore: Johns Hopkins Press, 1945.

_____, "Geschichte des Hippokratismus im ausgehenden Altertum." Kyklos, IV (1932), 14-34.

Thorndike, Lynn. "Notes on Medical Texts in Manuscripts at London and Oxford." Janus, XLVIII (1959), 141-202.

_____, "The Relation between Byzantine and Western Science and Pseudo-Science before 1350." Janus, LI (1964), 1-48.

_____, "Rufinus: A Forgotten Botanist of the Thirteenth Century." Isis, XVIII (1932), 63-76.

_____, "Some Alchemical Manuscripts at Bologna and Florence." Ambix, V (1956), 107.

_____, "Three Texts on Degree of Medicines, (De gradibus)." Bulletin of the History of Medicine, XXXVIII (1964), 533-537.

_____, "Traditional Medieval Texts Concerning Engraved Astrological Images." Mélanges Auguste Pelzer. Louvain, 1947, pp.260-267.

_____, "Translations of Works of Galen from the Greek by Niccolo da Reggio (c.1308-1345)." Byzantina Metabyzantina, I.1 (1946), 213-235.

_____, "Vatican Latin Manuscripts in the History of Science and Medicine." Isis, XIII (1929), 53-102.

Ussery, Huling E. Chaucer's Physician; Medicine and Literature in Fourteenth-Century England. (Tulane Studies in English, 19). New Orleans: Tulane University, 1971.

Wallner, Bjorn. "Drawings of Surgical Instruments in MS Bibl. Nat. Ang. 25 [containing Guy de Chauliac's Chirurgia Magna]." English Studies, XLII (Arngart Anniversary Number) (1965), 182-186.
This brief linguistic note discusses the nomenclature for the instruments depicted in the illuminations of Guy's Chirurgia.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Watson, Gilbert. Theriac and Mithridatum; A Study in Therapeutics. London: Wellcome Historical Medical Library, 1966.

Wedel, Theodore. The Medieval Attitude towards Astrology. (Yale Studies in English, 60). New Haven: Yale University Press, 1920.

Welborn, Mary C. "The Long Tradition: A Study in Fourteenth-Century Medical Deontology." Mediaeval and Historiographical Essays in Honor of James Westfall Thompson. Chicago: University of Chicago Press, 1938, pp. 344-357.

Wickersheimer, Ernest. "Zeitgenossen über den schwarzen Tod." Archiv für Geschichte der Medizin, III (1910), 348-349.

Withington, Edward T. "Roger Bacon on the Errors of Physicians." Essays on the History of Medicine, presented to Karl Sudhoff. Oxford and Zürich: Seldwyla, 1924, pp.139-157.
Contains the English translation of the De erroribus medicorum, written before 1268, in which Bacon criticized the 'Latin' physicians as generally inferior to the Greeks and Arabs.

Wrigley, John E. "A Papal Secret Known to Petrarch." Speculum, XXXIX (1964), 613-634.
A fascinating note on the illness of Pope Clement VI; it shows how many physicians must have lived at the papal court in Avignon.

Zimmerman, J. Contribution à l'étude des guérisons observées à la suite de la cérémonie du toucher des écrouelles par les rois de France. Paris diss.: Faculté de Médecine, 1962.
This dissertation examines the alleged healing of scrophula (or, morbus regius) by being touched by the French kings. This miraculous cure was also mentioned by Bernard de Gordon in the Lilium medicinae, I.21.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

6. REFERENCE WORKS

Bariéty, Maurice, and Coury, Charles. Histoire de la Médecine. Paris: Arthème Fayard, 1963.

Beccaria, Augusto. I codici di medicina del periodo presalernitano. Rome: Istituto di Storia della Medicina, 1956.

Castiglioni, Arturo. Storia della medicina. Verona: A.Mondadori, 1948, 2 vols.
Unlike too many textbooks of medical history, this work has an extensive bibliography.

Curtius, Ernst R. European Literature and the Latin Middle Ages; tr. from the German by Willard R. Trask. New York: Harper and Row, 1963.

Ebied, R.Y. Bibliography of Mediaeval Arabic and Jewish Medicine and Allied Sciences. London: Wellcome Institute of the History of Medicine, 1971.
I have not yet been able to consult this list, which should be an invaluable help to the historian.

Garrison, Fielding H. An Introduction to the History of Medicine; With Medical Chronology, Suggestions for Study, and Bibliographic Data. Philadelphia: W.B.Saunders, fourth edition, 1960.(first ed. 1929).
While convenient and commonly used as a textbook in courses on medical history, this work seems often unreliable and needs to be revised.

Gillispie, C., ed. Dictionary of Scientific Biography. New York: Scribner's, 1970- , IV vols.thus far.

Gordon, Benjamin Lee. Medieval and Renaissance Medicine. New York: Philosophical Library, 1959.
The sources, used for this popularized history, are often dated: thus, for example, G.C.Coulton, E.Gibbon, Donald Campbell, and so on.

Gurlt, Ernst J. Geschichte der Chirurgie und ihrer Ausübung; Volkschirurgie, Alterthum, Mittelalter, Renaissance. Berlin: A.Hirschwald, 1898, 3 vols.
Though dated, this manual is still useful because of its lucid organization and its summaries of medical writings.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Hain, Ludwig. Repertorium bibliographicum. Milan, 1948 (reprint of 1826-1838 ed.), IV vols.

Hamarneh, Sami. Bibliography on Medicine and Pharmacy in Medieval Islam. Stuttgart: Wissenschaftliche Verlagsgesellschaft, 1964.
Whereas this bibliography might have been extremely useful, it loses much of its value by being too incomplete, too inconsistent, and too uncritical.

Hirsch, August, et al., edds. Biographisches Lexikon der hervorragenden Ärzte aller Zeiten und Völker. Berlin, Vienna, 1929-1936, 6 vols.

Huard, Pierre, and Grmek, Mirko D. Mille Ans de Chirurgie en Occident: Ve - XVe siècles. Paris: Roger Dacosta, 1966.
The illustrations make this work uniquely valuable.

Klebs, A. C. "Incunabula scientifica et medica; Short Title List." Osiris, IV (1938), 1-89.

Leibbrand, Werner. Heilkunde; eine Problemgeschichte der Medizin. Freiburg: K.Alber, 1953.
This study surveys the philosophical background of medical thought: in Greece, at Salerno, the school of Chartres, the question of the universals, Scholasticism, and so on. It is illustrated with numerous excerpts from the sources.

_____, et al. Kompendium der Medizingeschichte. Munich: Banaschewski, 1964.

Major, Ralph H. A History of Medicine. Springfield, Ill.: Charles Thomas, 1954, 2 vols.

Meyer-Steineg, Theodor, and Sudhoff, Karl. Illustrierte Geschichte der Medizin. [5th ed.by] Herrlinger, Robert, and Kudlien, Fr. Stuttgart: Fischer, 1965.

Neuburger, Max. History of Medicine. Tr.from the German by Ernest Playfair. London: Oxford University Press, 1925, 2 vols.
While this textbook perpetuates several misconceptions about medieval medicine, its last pages contain a useful survey of vernacular medical literature.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Pagel, Julius. Geschichte der Medizin. Berlin: Karger, 1898, 2 vols.
This is still one of the best manuals.

Pansier, Pierre. "Catalogue des MSS médicaux de France." Archiv für Geschichte der Medizin, II (1908-9), 10-34, 385-432.

Sarton, George. Introduction to the History of Science. Washington, Baltimore: Williams & Wilkins, 1929-48, 3 vols.in 5.
With its notes on trends, its concise biographies, and its elaborate (though already dated) bibliographies, this reference work is indispensable.

Schneider, Wolfgang. Lexikon alchemistisch-pharmazeutischer Symbole. Weinheim: Verlag Chemie, 1962.
Although it is far from exhaustive, this dictionary of alchemical symbols and terms is useful as well as fascinating.

Steinschneider, Moritz. Die hebräischen Uebersetzungen des Mittelalters und die Juden als Dolmetscher. Graz: Akademische Druck- und Verlagsanstalt, 1956 (reprint of the 1893 ed.).

Thorndike, Lynn, and Kibre, Pearl. A Catalogue of Incipits of Mediaeval Scientific Writings in Latin. Augmented and rev.ed. Cambridge, Mass.: The Mediaeval Academy of America, 1963.
This monumental and invaluable instrument for research was supplemented further in the two following articles.

Thorndike, Lynn. "Additional Addenda and Corrigenda to the rev.ed. of L.Thorndike and P.Kibre, A Catalogue of Incipits." Speculum, XL (1965), 116-122.

Kibre, Pearl. "Further Addenda and Corrigenda to the rev. ed. of L.Thorndike and P.Kibre, A Catalogue of Incipits." Speculum, XLIII (1968), 78-114.

Thorndike, Lynn. A History of Magic and Experimental Science. New York: Columbia University Press, 1960-64, 4 vols.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Ullmann, Manfred. Die Medizin im Islam (Handbuch der Orientalistik, [ed.B.Spuler], Ie Abt. Der nahe und der mittelere Osten, Ergänzerungsband VI, Abschnitt I). Leiden and Cologne: E.J.Brill, 1970.
A thorough and scholarly work, soon to be supplemented by a companion volume by the same author, on "Natur- und Geheimwissenschaften im Islame"

Walsh, James J. Medieval Medicine. London: A.& C. Black, 1920.
This popularization is somewhat slight but makes for entertaining background reading.

_____, Old Time Makers of Medicine; The Story of the Students and Teachers of the Sciences Related to Medicine During the Middle Ages. New York: Fordham University Press, 1911.

Wickersheimer, Ernest. Dictionnaire biographique des médecins en France au Moyen Age. Paris: E.Droz, 1936, 2 vols.

_____, Manuscrits latins de médecine du Haut Moyen Age dans les bibliothèques de France. Paris: Centre National de la Recherche Scientifique, 1966. (Documents, Etudes, et Répertoires, XI).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.