

Jeffrey Diket. MEDICAL TREATISES AND THEIR AUTHORS IN THE LIBRARIES OF MEDIEVAL PARIS, 1050-1320. (Under the direction of Thomas C. Herndon) Department of History, July 1972.

This thesis details the rise and growth of the Faculty of Medicine of the University of Paris during the middle ages. It also reveals the origins and authorship of the many manuscripts contained in libraries and other depositories in Paris at that time. The comparative scarcity of scholarly studies concerning this subject furnishes a good reason for this study.

The libraries of the medical faculty were filled with ancient, Muslim, and Italian works which came mostly from Salerno and Bologna. Some of these treatises may also have been transported to Paris directly, copied from manuscripts in the Beauvais episcopal library, and a few were perhaps brought from Montpellier. The main figures in the utilizing of the Italian sources in Paris were Odo of Meung and Aegidius de Corbeil in the twelfth century. It appears that Aegidius brought his personal collection of manuscripts from Salerno and drew from them to write his books in Paris.

Prior to 1100 the medical courses taught in the Paris schools were based on texts preserved by the monasteries during the early Middle Ages. Errors and changes inserted in copying hindered medical teaching. Then in southern Italy the school of Salerno improved its texts with insertions

stemming from its own observations. At the same time Montpellier assimilated Muslim medicine.

During the twelfth and early thirteenth century three medical schools formed in Paris, teaching separate courses until they united in 1270 to form the Faculty of Medicine. They assimilated the Salernitan information and amalgamated it with the ancient sources by applying scholastic methods.

At the same time the surgeons established their own college, the Collège de St. Côme, and took the surgical leadership in northern Europe by teaching new techniques of the Bolognese doctors. A third author probably brought manuscripts from Bologna to Paris during the thirteenth century. He was Lanfranc of Milan. Lanfranc became the outstanding teacher of surgery in the Collège de St. Côme. This master and others taught the many French, German, and Spanish students who in time contributed their own works to the library shelves. By the beginning of the fourteenth century Italian exiles and Italian-trained masters, led by Lanfranc, dominated Paris's two schools for physicians and surgeons. Thus by 1320 the Paris libraries were among the leading sources for medical knowledge.



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IN THE LIBRARIES OF MEDIEVAL  
PARIS, 1050-1320

by  
Jeffrey Diket

APPROVED BY:

SUPERVISOR OF THESIS

Thomas C. Herndon  
Thomas C. Herndon

CHAIRMAN OF THE DEPARTMENT OF HISTORY

Herbert R. Paschal  
Herbert R. Paschal

DIRECTOR OF GRADUATE STUDIES

John M. Howell  
John M. Howell

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A Thesis  
Presented to  
the Faculty of the Department of History  
East Carolina University

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts in History

by  
Jeffrey Diket  
July 1972

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## PREFACE

The history of medieval medicine in Western Europe has attracted much attention in this century. Scholarly interest has been concentrated upon the achievements in outstanding centers such as Salerno, Bologna, Padua, and Montpellier. Relatively little notice has been focussed by recent scholars upon the development of medical studies at Paris. One of the causes for this neglect may be the fact that while other centers of medical studies produced outstanding physicians, surgeons, and anatomists, Paris produced no universally recognized native medical men. As a result, the historical literature devoted to the medical activities of Paris is scant and difficult to obtain.

The purpose of this author is to present a study of the rise and growth of the faculty of medicine of the University of Paris and of the libraries which contained their manuscripts. The contents of these medical manuscripts are surveyed and the contributions of their authors are noted. The possible provenance of these manuscripts is also discussed. A list of the manuscripts which may have been in the various libraries during this period can be found in the appendix.

Modern medieval scholars have not universally agreed on the proper form of the names of medieval authors. The author has therefore used as a guide in this matter Lynn Thorndike and Pearl Kibre, A Catalogue of Incipits of Mediaeval Scientific

Writings in Latin, Revised and Augmented Edition, Cambridge, Massachusetts, The Mediaeval Academy of America, 1963. In some cases the above work is supplemented by George Sarton, Introduction to the History of Science, 3 Volumes, Baltimore, The Carnegie Institution of Washington, 1927-1948. The previous works were also used in the solution of problems relating to the specific identity of authors and their manuscripts.

## CHAPTER I

### THE LIBRARY OF THE MEDIEVAL UNIVERSITY

To the medieval scholar the authorities of the ancient and Muslim worlds appeared so knowledgeable and close to perfection that one needed only to read their books and memorize their formulae to obtain the substance of all learning. In medicine the infallible sources were Aristotle, Galen, Averroes,<sup>1</sup> Hippocrates, Joannitius, Rasis, and Avicenna;<sup>2</sup> in anatomy, Herophilos of Alexandria and Erasistratus.<sup>3</sup>

In the writings of these authorities the causes and cures of disease were discussed in terms of body chemistry. All body processes were based upon the balance of four chemicals: blood, phlegm, black bile, and yellow bile. A change in the color, composition, or content of any of these biles, or humors, in the body by one of the four qualities: hot, cold, wet, and dry would denote the presence of disease within the body. This cluster of ideas was known in the

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<sup>1</sup>Eugene Bouchut, Histoire de la médecine et des doctrines médicales, 2 vols. (Paris: Baillière, 1873), 1:27.

<sup>2</sup>Arturo Castiglione, A History of Medicine, ed. and trans. Edward B. Krumbhaar (New York: Knopf and Company, 1941), p. 326.

<sup>3</sup>George Sarton, Introduction to the History of Science, 3 vols. (Baltimore: Carnegie Institution of Washington, 1931), 1:159-60.

middle ages as the humoral theory.<sup>4</sup>

Yet even as doctors tried to learn from their beloved authorities, whose veracity they did not question for most of the period,<sup>5</sup> they would find few original Greek texts of these important writings. Those available were works by Dioscorides, Galen, Hippocrates, Soranus, Oribasius, Paulus Aegineta, Alexander of Tralles, and Theodorus Priscianus. During the early middle ages some of them were translated into Latin at various centers of learning in western Europe. Copies of these were made by monks in the monastic scriptoria, and the medical knowledge contained in these copies became a part of the general medical lore of the early middle ages. In the process of transmission, however, errors in medical interpretation and thus in medical knowledge crept into the various texts so that some of these copies little resemble the original works in textual content by the end of the early middle ages. These monastic errors were passed down from generation to generation. By the twelfth century knowledge of medicine and anatomy was so garbled that later attempts to teach medicine as a logical science were greatly hindered.<sup>6</sup>

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<sup>4</sup>Paul O. Kristeller, "The School of Salerno; Its Development and Its Contribution to the History of Learning," Bulletin of the History of Medicine, 17 (1945): 150; George Sarton, Galen of Pergamon (Lawrence: U. of Kansas Press, 1954), p. 52.

<sup>5</sup>Fielding H. Garrison, Contributions to the History of Medicine (New York: Hafner Publishing Company, 1966), p. 142.

<sup>6</sup>Benjamin L. Gordon, The Romance of Medicine (Philadelphia: F. A. Davis Company, 1944), p. 72; Henry E.

Another handicap arose from the complete reliance of the schoolmen upon their ancient authorities.<sup>7</sup> From the second century before Christ until around 1300 few observations were made of human cadavers. Almost all anatomical work was based upon dissections of pigs. Consequently, because of the differences between the bodies of these animals and those of human beings many grave errors were born and passed along.<sup>8</sup>

By the middle of the twelfth century, as the teaching of medicine began to spread among European universities, the humoral theory of Galen still dominated scholastic circles. Little progress in the gathering of new knowledge was made.<sup>9</sup> The typical medical treatises of the thirteenth century still showed summaries of, or influences of the Galenic ideas.<sup>10</sup>

Meanwhile, the Islamic world was suffering military defeats at the hands of the Christians in the West and the Turks and Mongols in the East.<sup>11</sup> These defeats and internal

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Sigerist, "The Latin Medical Literature of the Early Middle Ages," Journal of the History of Medicine and Applied Sciences, 13 (1958): 130-31, 134-35, 138-39, 141.

<sup>7</sup>Garrison, Contributions to the History of Medicine, p. 142.

<sup>8</sup>A. C. Crombie, Medieval and Early Modern Science, 2 vols. (Cambridge: Harvard University Press, 1963), 1:224.

<sup>9</sup>Hastings Rashdall, The Universities of Europe in the Middle Ages, 2nd ed. rev., ed. F. M. Powicke and A. B. Emden, 3 vols. (Oxford: Oxford University Press, 1958), 1:437.

<sup>10</sup>Bouchut, Histoire de la médecine, 2:27.

<sup>11</sup>C. W. Previte-Orton, The Shorter Cambridge Medieval History, 2 vols. (Cambridge: Cambridge University Press,



corruption aided greatly in bringing about the decline of Muslim and Eastern Christian science, upon which western Europe had drawn for so long. National economic decay naturally resulted in the curtailing of intellectual development and in the shifting of creative thought. In Bagdad the rulers' intense struggle for power lead to corruption and over-taxation of the people. Farmers were forced to flee their lands by both the tax collectors and many plagues which periodically swept through the caliphate. With its power thus wasted Muslim scientific activity suffered a similar decline. The Mongols' destruction of Bagdad and other central Asian Muslim cities destroyed many important intellectuals and thus crippled Muslim culture still further.<sup>12</sup>

As the Christians conquered, they for the most part suppressed Muslim cultural activities--with the exception of King Alphonso X. They considered anything connected with the Muslim courts heretical. Thus Muslim and Jewish poets, artists, and scientists were driven from the Iberian peninsula.<sup>13</sup> Gradually western Europe's main channel of contact

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1952), 2:821-30; Sydney N. Fisher, The Middle East: A History (New York: Alfred A. Knopf, 1960), 1:161-70.

<sup>12</sup>Philip K. Hitti, History of the Arabs from the Earliest Times to the Present (New York: St. Martin's Press, 1960), p. 486.

<sup>13</sup>Previte-Orton, Shorter Cambridge Medieval History, 1:311-12.

with Islam became severed.<sup>14</sup>

Beginning with the late eleventh century, however, Europe's medical schools, the first was Salerno, started improving themselves in their field of study, a practice they continued to the end of the fourteenth century.<sup>15</sup> Such improvement was possible because libraries had larger and more varied stocks of books containing more observations and a greater variety of sources than previously.<sup>16</sup> Most European libraries were apparently in communication with each other during this time and if a particular book was not available in one, it could usually be obtained from another.<sup>17</sup>

Contemporaneously, doctors were studying from improved translations and newly available sources that were being translated at such Spanish centers as Barcelona, Segovia, Tarazona, Leon, Pamplona, and particularly Toledo by such translators as Petrus Alphonsi, John of Spain, Abraham ibn Ezra, Adelard of Bath, Plato of Tivoli, Hermann of Carinthia,

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<sup>14</sup>Rashdall, Universities in the Middle Ages, 1:350-51; Walter Mendelson, "Maimonides, A Twelfth Century Physician," Annals of Medical History, 5 (1923); 253.

<sup>15</sup>Rashdall, Universities in the Middle Ages, 1:353, 358-59.

<sup>16</sup>James W. Thompson, The Medieval Library (New York: Hafner Publishing Company, 1967), pp. 224-28 ff.

<sup>17</sup>Karl Strecker, Introduction to Medieval Latin, ed and trans. Robert B. Palmer (Berlin: Weidmannsche Verlagsbuchhandlung, 1957), p. 124.

Robert of Chester, Rudolf of Bruges, and Gerard of Cremona.<sup>18</sup> Gerard translated such Greek and Muslim authors as Galen, Aristotle, Alkindi, Alfarabi, Albucasis, Isaac, Rasis, and Avicenna.<sup>19</sup> These were added to the existing works of Haly Abbas, Isaac, Joannitius, Galen, and Hippocrates which were translated at the Italian centers of Salerno and Monte Cassino by Constantinus Africanus,<sup>20</sup> John Afflacijs, and Stephanus Antiochenus.<sup>21</sup>

Around 1300, as a result of the influence of Thaddeus of Florence, the concilia ("case studies") became a prominent literary form. They grew increasingly more popular with the passage of time. The fifteenth century was the great period of this type of medical writing. Doctors thus were setting down their clinical observations for further study.<sup>22</sup>

With the chartering of universities by the Papacy and

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<sup>18</sup>Crombie, Medieval and Early Modern Science, 1:34-35; Charles H. Haskins, Studies in the History of Mediaeval Science (New York: Frederick Ungar Publishing Co., 1960), pp. 5-19.

<sup>19</sup>Lynn Thorndike, A History of Magic and Experimental Science, 8 vols. (New York: Columbia University Press, 1923-1958), 2:89.

<sup>20</sup>Fielding H. Garrison, An Introduction to the History of Medicine (Philadelphia: W. B. Saunders Company, 1922), pp. 138-39.

<sup>21</sup>Crombie, Medieval and Early Modern Science, 1:34.

<sup>22</sup>Vern L. Bullough, The Development of Medicine as a Profession. The Contribution of the Medieval University to Modern Medicine (New York: Hafner Publishing Company, 1966), pp. 56-58; Dean P. Lockwood, Ugo Benzi (Chicago: University of Chicago Press, 1951), pp. 44-45.

reigning princes<sup>23</sup> professors of medicine were in many well-established centers of learning, mostly in England, France, and Italy. From the twelfth century to the end of the middle ages about eighty of these institutions existed throughout Europe--twenty in Italy, nineteen in France, four in Spain, and two in Portugal. All of them had a commonly acceptable curriculum, called the studia generalia.<sup>24</sup> Their pattern of organization was modeled after either Paris or Bologna University.<sup>25</sup> Paris was the oldest university in Europe.<sup>26</sup> After it came Bologna, Montpellier, and Oxford (all founded in 1167), and Padua (founded in 1222). The rest came later.<sup>27</sup> Salerno, the finest school of medicine in the twelfth century, was not a university. Of the universities the best for the medical student were Paris, Montpellier, Bologna, and Padua, all of which in the thirteenth century usurped Salerno's leading place in the field of study.<sup>28</sup>

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<sup>23</sup>Rashdall, Universities in the Middle Ages, 1:8, 82; Theodor Puschmann, A History of Medical Education (New York; Hafner Publishing Company, 1966), p. 228.

<sup>24</sup>Castiglione, History of Medicine, p. 326.

<sup>25</sup>Rashdall, Universities in the Middle Ages, 1:7, 16; Puschmann, History of Medical Education, pp. 231, 237.

<sup>26</sup>Rashdall, Universities in the Middle Ages, 1:8.

<sup>27</sup>Bernard Dawson, The History of Medicine (New York: Macmillan Company, 1932), p. 86.

<sup>28</sup>Rashdall, Universities in the Middle Ages, 1:85, 86, 235, 322, 435, 437 n.; 2:10, 119.

During the fourteenth century occurred a revolution in medical education and research.<sup>29</sup> Many of the cherished dogmas of anatomy, which up to this moment had been a speculative science, were now thrown open to question.<sup>30</sup>

As the Muslims had been for Europe the source for advanced medical knowledge, so now Italy became for France. The tradition of the Italian surgeons seems to have maintained itself in France throughout the high and late middle ages,<sup>31</sup> mainly because of the great reputation enjoyed by the faculty at Salerno in the twelfth century.<sup>32</sup> Here could be seen animals, mainly pigs, being dissected in a laboratory on a systematic schedule.<sup>33</sup> The knowledge derived from the operations was then taught in classrooms along with dictums of the old authorities, who were previously the sole reliance. If "Sicut asserit Galen" ("Thus did Galen declare") previously served to justify without question any argument, it no longer so operated in Salerno. Anatomical texts, indicate that while the faculty and students in anatomy at the institution remained disciples of

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<sup>29</sup>Puschmann, History of Medical Education, pp. 243-44.

<sup>30</sup>Ibid.: Bullough, Development of Medicine, p. 42; Kristeller, "School of Salerno," pp. 148, 153, 155, 156, 157.

<sup>31</sup>Castiglione, History of Medicine, p. 337.

<sup>32</sup>Kristeller, "School of Salerno," pp. 154, 155.

<sup>33</sup>George W. Corner, Anatomical Texts of the Earlier Middle Ages. A Study in the Transmission of Culture (Washington, D.C.: Carnegie Institution of Washington, 1927), p. 21.

Galen, they recognized also the necessity of continuous observations and experiments.<sup>34</sup>

With the advent of the thirteenth century Salerno began to decline as Europe's leading medical institution. Its fall was hardly retarded by the sacking it suffered at the hands of Henry the Lion in 1193, during his war with Sicily.<sup>35</sup> To prevent the school's destruction Frederick II in 1231 decreed that only Salerno could grant medical degrees in his kingdom. He then legislated strict requirements for all medical students.<sup>36</sup> In 1252 the Emperor Conrad IV desired to strengthen the school of Salerno and at the same time weaken the Neapolitans who were at war with him. He invited the entire faculty of the University of Naples to transfer to Salerno and make it thereby into a leading university. The invitation produced no important results.<sup>37</sup>

Within a century the ancient splendor of the old medical school was extinct. Queen Joanna, who lived from about 1326 to 1382, ruler of Naples and a great patron of the arts,<sup>38</sup>

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<sup>34</sup>Kristeller, "School of Salerno," pp. 140-42, 157; Castiglione, History of Medicine, p. 317.

<sup>35</sup>Kristeller, "School of Salerno," pp. 156-57; Bullough, Development of Medicine, p. 49.

<sup>36</sup>Katherine Shippen, Men of Medicine (New York: Viking Press, 1963), p. 62.

<sup>37</sup>Rashdall, Universities in the Middle Ages, 2:24; Kristeller, "School of Salerno," p. 175.

<sup>38</sup>Richard Lodge, The Close of the Middle Ages, 1273-1494 (London: Rivingtons, 1928), pp. 152, 153, 154, 186.

sought to encourage its continuance by placing the royal seal of approval upon the rules for medical practice established in Salerno. But by this time Paris and Bologna had eclipsed the old leader in medicine and it never again recovered its old position.<sup>39</sup>

Meanwhile, another university of uncertain origin was flourishing in the district of Provence in France. This was Montpellier. In 1220 the Cardinal Legate Conrad bestowed upon it the Church's sanction.<sup>40</sup> This institution had the great advantage of enjoying complete independence from all authority.<sup>41</sup> Consequently it utilized knowledge derived from both Salerno and the many Jewish physicians of its own staff and in nearby Spain. Montpellier was the first school to introduce scholastics to the medical literature of the Muslims.<sup>42</sup>

Across the channel the English enjoyed a tradition of scholarship that went back to the ninth century with the claim that studies began at that time in Oxford. However, this

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<sup>39</sup>Rashdall, Universities in the Middle Ages, 1:84-85; Kristeller, "School of Salerno," pp. 169, 175-76, 180.

<sup>40</sup>Alfred L. A. Franklin, Les anciennes bibliothèques de Paris, 3 vols. (Paris: Imprimerie imperial, 1867-73), 2:95; Rashdall, Universities in the Middle Ages, 2:123.

<sup>41</sup>Castiglione, History of Medicine, p. 326; Rashdall, Universities in the Middle Ages, 1:117-18.

<sup>42</sup>Maxime Laignel-Lavastine, Histoire générale de la médecine, de la pharmacie, de l'art dentaire, et de l'art vétérinaire, 3 vols. (Paris: Bertrand Guegau, 1936-1950), 2:48-49; Rashdall, Universities in the Middle Ages, 2:118, 120-21.

place of learning did not become a studia generalia until the last half of the twelfth century<sup>43</sup> (around 1167).<sup>44</sup> Apparently its sudden appearance was necessitated by the Anglo-French wars of the period. The English king's threat to cut off the scholarships of students from his country at Paris forced them to return home. Riots occurred at the University, such as the particularly bad one of 1228, which made them seek safer places out of the country. Oxford adopted the organizational plan of Paris as its model.<sup>45</sup>

The University of Cambridge was founded for similar reasons in 1217. An unusually severe town-and-gown quarrel had brought about the near destruction of Oxford's new buildings. Consequently, many students of the institution began another search for a place in which they could study in peace. They found the desired location in the town of Cambridge. There they were soon persuing the following medical texts: Galen's Tegni and Hippocrates' Aphorisms for theory and Isaac Judeaus' Liber Februm and Nicolaus Salernus' Antidotarium for practical pursuits.<sup>46</sup>

For the French student in the late middle ages the best

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<sup>43</sup>Castiglione, History of Medicine, p. 339.

<sup>44</sup>Dawson, History of Medicine, p. 86.

<sup>45</sup>Rashdall, Universities in the Middle Ages, 3:13-16, 34 276.

<sup>46</sup>Castiglione, History of Medicine, p. 339.



schools with medical faculties were Montpellier and Paris.<sup>47</sup> Most of the schools in Paris did not teach the discipline. One example of this fact was St. Germain des Pres, founded in the sixth century by Childebert I, Frankish king who died in 558.<sup>48</sup> It had one medical book listed in its library's catalog,<sup>49</sup> maintaining only a connecting link with medical knowledge, beginning in 1289 with a covenant made by it with the Faculty of Medicine of Paris.<sup>50</sup>

One would have expected to find medical instruction in the renowned Hôtel Dieu, a hospital founded under the name of St. Christopher by St. Landry during his reign as Bishop of Paris (650-c. 660).<sup>51</sup> Yet, for the first thousand years of its existence the carefully maintained clinical files of those treated remained unstudied by students. The student

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<sup>47</sup>Ibid., p. 326.

<sup>48</sup>Charles Oman, The Dark Ages, 476-918 (London: Rivingtons, 1962), pp. 111, 114, 115, 121.

<sup>49</sup>Paul Dorveaux, Le livre des simples médecines. Traduction française du Liber de simplici medicina dictus Circa instans de Platearius tirée d'un manuscrit du XIII<sup>e</sup> siècle (Ms. 3113 de la Bibliothèque Ste. Geneviève de Paris) et publiée pour la première fois (Paris: Société française d'histoire de la médecine

<sup>50</sup>J. Bouillet, Précis d'histoire de la médecine (Paris: Baillière, 1883), p. 161.

<sup>51</sup>Herbert Thurston and Donald Attwater, ed., Butler's Lives of the Saints (New York: P. J. Kenedy & Sons, 1962), p. 53.

had to attach himself to a practicing doctor, such as Maître Hubert, a surgeon hired by the hospital in 1221 to treat the sick poor.<sup>52</sup> No list of medical books exists also in the records of the College of Cluny, established by Yves de Vergi (Yvo Vergiacus), twenty-fifth Abbot of Cluny;<sup>53</sup> nor are there any recorded within the archives of St. Martin des Champs.<sup>54</sup>

The same situation existed in the Carmes de la Place Maubert, a monastery built in 1171 for hermits returning from the Middle East and revived in 1259 by six persons.<sup>55</sup> No medical books, according to the records of the institution, could be found in the Monastery of the Mathurines, founded in 1198.<sup>56</sup> The medical student could find no haven of study at St. Catherine du Val des Ecoliers, established by four scholars in 1201,<sup>57</sup> and a medical volume was located in the 1290 catalog of the Sorbonne, which originated in the thirteenth century.<sup>58</sup> The Franciscans list no medical texts in

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<sup>52</sup>George A. Bender, Great Moments in Medicine (Detroit: Northwood Institute Press, 1966), p. 75.

<sup>53</sup>Rashdall, Universities in the Middle Ages, 1:536.

<sup>54</sup>Thompson, Medieval Library, p. 252.

<sup>55</sup>Franklin, Anciennes bibliothèques, 2:1.

<sup>56</sup>Ibid., pp. 187-90.

<sup>57</sup>Ibid., pp. 197-201.

<sup>58</sup>Ibid., pp. 304-305. By 1338 this institution did contain some books of this category. Thompson, Medieval Library, pp. 257-58.

their catalogs for the Cordeliers built in 1217.<sup>59</sup> They are missing also in the listings of the libraries of monasteries founded by doctors, such as the Jacolins de la Rue St. Jacques, the gift of Jean de St. Alban to the order of St. Jean.<sup>60</sup> The scholastic philosophy was supposed to include medicine.<sup>61</sup> But it was not taught at two well-known centers for the teaching of this discipline, the Collège des Bernardins, founded in 1244, which was under the direction of the cloister at Clairvaux,<sup>62</sup> and the Prémontré Monastery, which originated in 1252.<sup>63</sup>

Not even all the colleges on the Rue de St. Victor, the home of part of the Faculty of Medicine of Paris, conducted medical classes. One of these was the Collège de Bons Enfants, also called the Séminaire St. Firmin. To it in 1257 King Louis IX donated forty books; but it had no medical library.<sup>64</sup> No medical works existed also in the Monastery

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<sup>59</sup>Franklin, Anciennes bibliothèques, 2:203-207.

<sup>60</sup>Ernest Wickersheimer, Dictionnaire biographique des médecins en France au moyen âge, 2 vols. (Paris: Librairie E. Droz, 1936), 2:476.

<sup>61</sup>Louis J. Paetow, The Arts Course at Medieval Universities with Special Reference to Grammar and Rhetoric, University of Illinois Studies, vol. 3, no. 7 (Urbana-Champaign: University of Illinois Press, 1910), p. 8.

<sup>62</sup>Franklin, Anciennes bibliothèques, 2:209-11.

<sup>63</sup>Ibid., pp. 221 ff.; Rashdall, Universities in the Middle Ages, 1:536.

<sup>64</sup>Franklin, Anciennes bibliothèques, 2:377.

of Chartreux, which Louis IX founded.<sup>65</sup>

The same monarch also established the Hôpital de Quinze-Vingts. Its purpose was the treatment and prevention of ophthalmological disorders. This institution still specializes in this service but has added other departments and become a general hospital.<sup>66</sup>

Four other institutions flourishing at this time and containing no medical courses were the Collège du Trésorier,<sup>67</sup> the Collège d'Harcourt,<sup>68</sup> the Convent des Grands-Augustin,<sup>69</sup> and the Collège des Cholets.<sup>70</sup> The first of these was founded in 1268 by Guillaume de Saône, treasurer of the Cathedral of Rouen.<sup>71</sup> The Collège d'Harcourt was built twelve years later by Raoul d'Harcourt, Archdeacon of Coutances, Canon of Paris, Chancellor of Bayeux, Chanter of Evreux, and Granddeacon of Rouen.<sup>72</sup> The Convent des Grands-Augustin was the Parisian monastery of the

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<sup>65</sup>Ibid., pp. 323-28.

<sup>66</sup>Bender, Great Moments in Medicine, p. 72.

<sup>67</sup>Franklin, Anciennes bibliothèques, 2:337 ff.

<sup>68</sup>Rashdall, Universities in the Middle Ages, 1:537.

<sup>69</sup>Franklin, Anciennes bibliothèques, 2:379-87.

<sup>70</sup>Ibid., pp. 373-77; Rashdall, Universities in the Middle Ages, 1:537.

<sup>71</sup>Franklin, Anciennes bibliothèques, 1:337 ff.

<sup>72</sup>Rashdall, Universities in the Middle Ages, 1:537.

Augustinians, established in 1285.<sup>73</sup> The aforementioned colleges were founded in order to serve as dormitories for poor students who did not have enough money to rent their own residences in Paris.<sup>74</sup> The Collège des Cholets' benefactors were Evard de Mointelle and Gerard de St. Just, executors of the will of Cardinal Jean Cholet. The Cardinal wanted to bequest his money to the King of Aragon to lead a crusade. His executors decided instead to found an institution of learning, which they named the Collège de Testateur. In 1295 this designation was changed to Collège des Cholet.<sup>75</sup>

In all of the above one finds no evidence of the existence of medical books. Yet, in the St. Chapelle du Palais, built after 1239<sup>76</sup> to house the relics collected by Louis IX, and the most unlikely place for a medical library, the records reveal a possible collection of medical books.<sup>77</sup> St. Louis founded this library upon returning from the Middle East. Because he wished to increase the supply of books in Paris in an inexpensive manner, he opened the facility as a copying center and placed his royal librarian, Vincent of Beauvais,

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<sup>73</sup>Franklin, Anciennes bibliothèques, 2:379.

<sup>74</sup>Rashdall, Universities in the Middle Ages, 1:500-503.

<sup>75</sup>Franklin, Anciennes bibliothèques, 2:373; Rashdall, Universities in the Middle Ages, 1:537.

<sup>76</sup>Franklin, Anciennes bibliothèques, 2:213-19.

<sup>77</sup>Thompson, Medieval Library, p. 258.

in charge.<sup>78</sup> Vincent was familiar with the Beauvais episcopal library in northeastern France. It was there that he completed his Speculum Maius before his entrance into the royal service.<sup>79</sup> For this reason the Beauvais library seems to be the most likely source for the 1200 books<sup>80</sup> with which Vincent and his copyists supplied the royal library.<sup>81</sup> After Louis' death his will provided that the library be divided between the Dominicans of the Cordeliers, the Minorites, and the Cistercians.<sup>82</sup>

Ancient Greek and Roman authorities, such as Hippocrates and Galen, provided the basic texts for the middle ages. The necessary process of translating them into Latin resulted in corruption of these texts. The low state of medical practice during the early middle ages retarded medical education until the influx of new learning which came from Muslim and eastern Christian physicians. Europe learned of these developments through new translation centers in Spain and Italy. In Italy Salerno led the way; in France, Montpellier and Paris.

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<sup>78</sup>Thorndike, History of Magic, 2:458.

<sup>79</sup>Thompson, Medieval Library, p. 251.

<sup>80</sup>Rashdall, Universities in the Middle Ages, 1:517.

<sup>81</sup>Thorndike, History of Magic, 2:458.

<sup>82</sup>Thompson, Medieval Library, p. 258.

## CHAPTER II

### THE FACULTY OF MEDICINE

It was once the view that the Faculty of Medicine began its existence in 805 as the Hippocratica Tacta, part of the Palatine School of Charlemagne at Aachen, or Aix-la-Chapelle.<sup>1</sup> This opinion is no longer held by most authorities.<sup>2</sup> After the devastating invasion of the Norse, Remi, a famous French scholar of the tenth century, came from Orleans to teach in Paris. At this time three schools were already in existence: Cathedral, St. Genevieve, and St. Germaine-des-Pres. These schools would continue to hold uninterrupted classes for the next two hundred years.<sup>3</sup>

The University of Paris and what would later be called the Faculty of Medicine were in existence by 1110. They began their careers during the time that Peter Abelard (1079-1142) dominated the philosophical circles of Paris.<sup>4</sup> Abelard

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<sup>1</sup>Alfred L. A. Franklin, Les anciennes bibliothèques de Paris, 3 vols. (Paris: Imprimerie Impériale, 1867-73), 2:13.

<sup>2</sup>See Hastings Rashdall, The Universities of Europe in the Middle Ages, 2nd ed. rev., ed. F. M. Powicke and A. B. Emden, 3 vols. (Oxford: Oxford University Press, 1958), 1:52, 271-73, 276-77.

<sup>3</sup>James W. Thompson, The Medieval Library (New York: Hafner Publishing Company, 1967), pp. 223-25.

<sup>4</sup>Bernard Dawson, The History of Medicine (New York: Macmillan Company, 1932), p. 86; Arturo Castiglione, A History of Medicine, trans. E.B. Krumbhaar (New York: Knopf and Company, 1941), p. 327.

and his predecessors, Anselm of Bec and William of Champeaux, who was Abelard's teacher, did much to make the institution important by attracting many physicians to its faculty and strengthening its staff. Their work did much to help it expand during the late eleventh and early twelfth centuries.<sup>5</sup>

The relationship of the Faculty of Medicine to the philosophy faculty during this period can be traced from the ninth century, when medicine with arithmetic, geometry, mechanics, and music was taught under the course name "physica."<sup>6</sup> This term later appears as part of the table of contents of a twelfth century catalog which was compiled by a student and teacher of Paris, Alexander Neckham<sup>7</sup> (1157-1215).<sup>8</sup>

The increasing numbers of students whom the doctors attracted to Paris so overcrowded the quarters of the medical school that the faculty was forced to divide the department into two, the Abbey of St. Victor and St. Genevieve.<sup>9</sup>

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<sup>5</sup>Rashdall, Universities in the Middle Ages, 1:276-78, 287-88, 292. For Abelard's personal account of his studies and teaching at Paris see Lynn Thorndike, University Records and Life in the Middle Ages (New York: Columbia University Press, 1944), pp. 1-6.

<sup>6</sup>Fielding H. Garrison, Introduction to the History of Medicine (Philadelphia: W. B. Saunders Company, 1929), p. 137.

<sup>7</sup>Ibid., p. 72; Thompson, Medieval Library, p. 253.

<sup>8</sup>George Sarton, Introduction to the History of Science, 3 vols. (Baltimore: Carnegie Institution of Washington, 1931), 2:385.

<sup>9</sup>Franklin, Anciennes bibliothèques, 2:14.



Concerning the early history of the libraries of these little is known. The first recorded donation to St. Genevieve occurred in 1173, when a certain Odon (or Endes) bequeathed two missals.<sup>10</sup> When the library's catalog of 1250 was compiled, it listed treatises on the following subjects: anatomy, surgery, botany, pharmacy, chemistry, and general and particular medicine. The total number of volumes was 2,633.<sup>11</sup>

St. Victor was established around 1108<sup>12</sup> by Guillaume de Champeaux.<sup>13</sup> Besides giving a course in medicine it also provided instruction in theology and history, as the extensive collections of material in these disciplines well testify.<sup>14</sup> The first recorded gift to the abbey was a Bible and theological books. The donor was a certain Obizon, or Obizo, personal physician to Louis VI, who subsequently taught medicine there. His epitaph is written in the works he left the library.<sup>15</sup> Perhaps the most important head of the abbey was the Abbé le Boeuf. Under his rule it grew continually, to

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<sup>10</sup>Thompson, Medieval Library, p. 253.

<sup>11</sup>Franklin, Anciennes bibliothèques, 2:98.

<sup>12</sup>Sarton, Introduction to the History of Science, 2:193.

<sup>13</sup>Ibid.; Franklin, Anciennes bibliothèques, 2:137.

<sup>14</sup>Alfred L. A. Franklin, Histoire de la bibliothèque de l'abbaye de Saint Victor a Paris (Paris: A. Aubry, 1865),

<sup>15</sup>Franklin, Anciennes bibliothèques, 2:138; Ernst Wickersheimer, Dictionnaire biographique des medecins en France au moyen age, 2 vols. (Paris: Librairie E. Droz, 1936), p. 582.

form what would later be called the "University."<sup>16</sup>

The first royal recognition of the University of Paris came in 1200, when Philip Augustus, King of France, chartered it.<sup>17</sup> Ten years later the institution opened its own medical department. The person responsible was Aegidius de Corbeil, educated at Salerno and the person who introduced Salernitan medicine to Paris. He was at the time physician to Philip Augustus.<sup>18</sup> The department was independent from St. Victor and St. Geneviève medical schools. Three years afterward this school was mentioned in recommendations concerning the relationship of the dean of Notre Dame Cathedral to the scholars and students of the University. Like the other institutions it gained almost total independence from the dean of the Cathedral in 1231. Twenty years later the faculty received its first specific mention in the regulations promulgated that year.<sup>19</sup>

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<sup>16</sup>Franklin, Anciennes bibliothèques, 2:137.

<sup>17</sup>Castiglione, History of Medicine, pp. 327-28; Rashdall, Universities in the Middle Ages, 1:85, 269, 294-98.

<sup>18</sup>Castiglione, History of Medicine, pp. 327-28; Rashdall, Universities in the Middle Ages, 1:436 n. For list of text books used see Charles H. Haskins, Studies in the History of Mediaeval Science (New York: Frederick Unger Publishing Company, 1960), pp. 374-75.

<sup>19</sup>Vern L. Bullough, "The Medieval Medical University at Paris," Bulletin of the History of Medicine, 31(1957): 197-211; Harold W. Jones, "The Faculty of Medicine of Paris," Annals of Medical History, 1(1939):5.

Frederick II ordered the translations of Aristotle and Averroes to be performed and either he or his successor sent them from Naples to Bologna and Paris. These were completed between 1220 and 1230 by outstanding translators like Michael Scot and Bartholomaeus de Messina and an anonymous Jew from Naples.<sup>20</sup>

The medical department of the University of Paris merged in 1270 with the medical schools at St. Geneviève and St. Victor to form again one Faculty of Medicine.<sup>21</sup> Because of this action the newly integrated body made an inventory of its library. Although the quality of the volumes in the libraries of the learning institutions in France had improved,<sup>22</sup> they still continued to rely upon Italian exiles for knowledge derived from the latest medical discoveries. This fact showed in their medical works, many of which were influenced by or came directly from Italians.<sup>23</sup> Thus the majority of the books listed in the University's catalog for 1270 had originated in Salerno.<sup>24</sup>

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<sup>20</sup>Lynn Thorndike, History of Magic and Experimental Science, 8 vols. (New York: Columbia University Press, 1923-1958), 2:313-14.

<sup>21</sup>Franklin, Anciennes bibliothèques, 2:14.

<sup>22</sup>Ibid., pp. 216-17.

<sup>23</sup>Sarton, Introduction to the History of Science, 2:785.

<sup>24</sup>Vern L. Bullough, The Development of Medicine as a Profession. The Contribution of the Medieval University to Modern Medicine (New York: Hafner Publishing Company, 1966), p. 69.

Next year the organization of the Faculty of Medicine consisted of six regents and a dean. They drew up the first rules for the governance of the medical school.<sup>25</sup> Then they set out to expand their power and the size of the school. In this same twelve months period they persuaded the king to prohibit Jews from practicing medicine on Roman Catholics.<sup>26</sup> The next year they established the requirement that a student must attend classes for at least six years before he was eligible to receive a degree.<sup>27</sup>

An inventory of the library was made in 1274. The list of books inventoried at this time showed a strong Salernitan influence.<sup>28</sup> In the inventory were also lists of the Faculty's members. They included Jean de Parme, Jean Petit, Jean Breton, Pierre d'Allemagne, Pierre de Neuchatel, and Bouret.<sup>29</sup>

The medical library in 1274<sup>30</sup> was brought under the regulations governing the main library of the University. Among these was one which ordered officials of the library

<sup>25</sup>Castiglione, History of Medicine, p. 377.

<sup>26</sup>Lynn Thorndike, University Records and Life in the Middle Ages (New York: Columbia University Press, 1944), pp. 83-85.

<sup>27</sup>Theodore Puschmann, A History of Medical Education (New York: Hafner Publishing Company, 1966), p. 238; Thorndike, University Records, pp. 81-82.

<sup>28</sup>Bullough, Development of Medicine, p. 69.

<sup>29</sup>Franklin, Anciennes bibliothèques, 2:14.

<sup>30</sup>Stephen d'Irsay, "Teachers and Textbooks of Medicine in the Medieval University of Paris," Annals of Medical History, 8(1926):235.

not to transact business in books without the approval of the University. Perhaps the rules, which were strictly enforced, caused the Faculty to depart from the institution's organization in 1280.<sup>31</sup>

Another inventory of the Paris library was made in 1290. In the listing scientific works were classified in the following categories: medicine, astronomy, and alchemy. One medical text which received specific mention was the Originalis Haymonis Hyldegardis.<sup>32</sup>

All the colleges which participated in the studia generalia taught the trivium-quadrivium system, the trivium consisting of grammar, rhetoric, and dialectic and the quadrivium, arithmetic, geometry, astronomy, and music. Law, philosophy, and theology were outside the main system of courses. Medicine was taught as a part of philosophy and known to the students by the term physica.<sup>33</sup>

The instruction medical students received therefore was a cluster of philosophical theories delivered in Latin. The school day was long. In the morning there were lectures on res naturales et non naturales, which included subjects like anatomy, physiology, and hygiene. In the afternoon the future

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<sup>31</sup>Franklin, Anciennes bibliothèques, 2:95.

<sup>32</sup>Ibid., pp. 304-305.

<sup>33</sup>Castiglione, History of Medicine, p. 326; Rashdall, Universities in the Middle Ages, 1:34-35, 435-38.

doctors were shown the various methods of diagnosis and the treatment of diseases. In class teacher and student would discuss specific problems and frequently engage in dialogue. The logical approach of scholasticism dominated all activity. Many opposing theories were framed as syllogisms, whose opposing arguments it was the objective of teacher and learner to reconcile.<sup>34</sup>

Twice each year great debates were conducted, in which particular rules operated and a special vocabulary was employed. At the conclusion of each, when the participants had exhausted their facts and conclusions, a "conciliator" took charge, to deliver the concordantiae. This was what in his opinion were the conclusions arising out of the discussion.<sup>35</sup>

Anatomy classes revealed to what extent the Medical Faculty abhorred manual labor and laboratory preparation. The student would learn only Galen's nomenclature of the body.<sup>36</sup> Because of the many errors passed on by medieval scribes, this nomenclature had become confused. In attendance was a barber-surgeon, to dissect the specimen to be

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<sup>34</sup>Maxime Laignel-Lavastine, Histoire generale de la medecine, de la pharmacie, de l'art dentaire, et de l'art veterinaire, 3 vols. (Paris: Bertrand Guegau, 1936-50), 2:78.

<sup>35</sup>Ibid. See also Rashdall, Universities in the Middle Ages, 1:436, 444, 3:342.

<sup>36</sup>Rashdall, Universities in the Middle Ages, 1:245, 425.

studied,<sup>37</sup> which was usually a pig.<sup>38</sup> The reason for his performing the operation was to emphasize the differences in station and function between the doctor and the surgeon.<sup>39</sup> The imposition of this division between medicine and surgery forced surgeons ultimately to develop their own schools outside the doctors' control.<sup>40</sup>

The graduate of the Paris medical school received a bachelor's degree. After obtaining it, many successful students joined the faculty. Some of them went on to attain the Licentiate. Achieving this next highest degree was difficult. Before being consecrated by the chancellor of the university, the applicant had to take four special courses and pass through elaborate preliminaries called paranymphe.<sup>41</sup>

The ultimate academic achievement was the doctorate. Candidates had to practice medicine for two years under a physician and were required to write a paper upon which they were examined.<sup>42</sup> After passing this examination, called the

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<sup>37</sup>Ibid., p. 245; Benjamin L. Gordon, The Romance of Medicine (Philadelphia: F. A. Davis Company, 1944), p. 72.

<sup>38</sup>Castiglione, History of Medicine, p. 317.

<sup>39</sup>Rashdall, Universities in the Middle Ages, 1:245.

<sup>40</sup>Laignel-Lavastine, Histoire de la médecine, 2:78; Puschmann, History of Medical Education, p. 266.

<sup>41</sup>Laignel-Lavastine, Histoire de la médecine, 2:78; Rashdall, Universities in the Middle Ages, 1:435.

<sup>42</sup>Laignel-Lavastine, Histoire de la médecine, 2:78.

vestery, the new doctor became a full professor of the university.<sup>43</sup>

The reason logic was applied to medical teaching was that all physicians at the University of Paris were priests. The University was a strong-hold of the Papal Authority.<sup>44</sup> Besides their medical and clerical duties they performed services as the alchemists and astrologers of the thirteenth century. Being theologians they developed their own individual theories of the origin and growth of the universe and engaged in long discussions concerning the relationship of men to the microcosm and macrocosm.<sup>45</sup>

While this clerical background of the Faculty may have constrained its efforts in science, it also aided the members to benefit their students in the following manner. Students lacking sufficient funds for their education could have all their tuition costs deferred until they were earning a living if they were willing to study and practice as part of the faculty for a period of five years after graduation.<sup>46</sup> From the close of the middle ages and until recent times the

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<sup>43</sup>Castiglione, History of Medicine, p. 328; Rashdall, Universities in the Middle Ages, 1:283-86, 480.

<sup>44</sup>Friedrich Heer, The Medieval World, trans. Janet Sondheim (Cleveland: World Publishing Co., 1962), pp. 195, 199.

<sup>45</sup>Laignel-Lavastine, Histoire de la médecine, 2:56.

<sup>46</sup>J. Bouillett, Précis d'histoire de la médecine (Paris: Librairie J. B. Bailliere et fils, 1883), p. 157.



practice disappeared.

As noted above<sup>47</sup> the Faculty of Medicine was within the philosophy department. This department was part of the Faculty of Arts.<sup>48</sup> Yet, in spite of its comparative low place on the scale of organization the Faculty of Medicine, because of the increasing number of students within its jurisdiction, never solved for long the problem of locating itself in a permanent home. For lack of space it was forced from 1110 to 1270 to separate, and performed its teachings in two, and later three buildings. Then for the same reason on the latter date it became one again.<sup>49</sup>

Other departments faced the same problems when they began their existence but solved them. They taught in their earliest period in the most humble places, the very worst of which perhaps was the dwelling where prostitutes still plied their trade.<sup>50</sup> But in the very year the doctors recombined their school, the remainder of the departments of the Faculty of Arts found their permanent home, in the Rue de Fouarre, so named from the straw upon which both student and teacher sat.<sup>51</sup>

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<sup>47</sup>See above, p. 24.

<sup>48</sup>Castiglione, History of Medicine, p. 326; Franklin, Anciennes bibliothèques, 2:14.

<sup>49</sup>Franklin, Anciennes bibliothèques, 2:14.

<sup>50</sup>Puschmann, History of Medical Education, p. 230.

<sup>51</sup>Rashdall, Universities in the Middle Ages, 1:341.

While the Faculty of Arts found its home on the Rue de Fouarre, the Faculty of Medicine had as late as 1384 still not achieved a permanent location. The professors were teaching their classes in churches.<sup>52</sup> At first, they taught in St. Genevieve la Petite, located in the Ile de la Cité. Later, they held classes in the Church of the Salle Capitulaire, then in the Convent des Mathurines near the Hôtel de Cluny, and finally during the fifteenth century in the Cathedral of Notre Dame.<sup>53</sup> At Notre Dame the doctors lectured in the venetier, which was under the right-hand tower.<sup>54</sup> They also met with their students outside the church in the neighborhood of the Petit Chatelet.<sup>55</sup> The many walks they took over the Seine bridges to and from class earned for these professors the soubriquet "Parvi Pontani."<sup>56</sup> Not until 1470 did the Faculty find itself permanent headquarters.<sup>57</sup>

In 1395, five years before they moved to the Cathedral, the Faculty made another inventory of their library. According

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<sup>52</sup>Andre Hahn, et al, Histoire de la médecine et du livre medical a la lumière des collections de la Bibliothèque de la Faculté de médecine de Paris (Paris: O. Perrin, 1962), p. 13.

<sup>53</sup>Ibid.

<sup>54</sup>Franklin, Anciennes bibliothèques, 2:13.

<sup>55</sup>Laignel-Lavastine, Histoire de la médecine, 2:72.

<sup>56</sup>Ibid.

<sup>57</sup>Hahn, et al, Histoire de la médecine, p. 13.

to one authority this catalog was the first evidence of a collection of medical manuscripts existing in the institution.<sup>58</sup> However, the evidence remaining in previous catalogs contradicts that statement.<sup>59</sup> On November 6 of the same year Pierre des Vallee the dean learned he had only thirty volumes.<sup>60</sup> Moreover, he had no place to shelve them.<sup>61</sup> Libraries were not large then in France. Jean, Duc de Berry, brother of King Charles V<sup>62</sup> had just fifty-eight books in his collection. Charles had 900.<sup>63</sup>

Surgeons during the middle ages made many attempts to improve their art and practice. St. Louis, founder of many theological schools,<sup>64</sup> proved himself their benefactor. Assisted by his surgeon Jean Pitard (1228-1315), he established the Collège de St. Côme,<sup>65</sup> named after St. Cosmos, one of the two patron saints of medicine.<sup>66</sup> The new school began

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<sup>58</sup>Hahn, et al, Histoire de la médecine, p. 11; Franklin, Anciennes bibliothèques, 2:58.

<sup>59</sup>Bullough, Development of Medicine, p. 69.

<sup>60</sup>Hahn, et al, Histoire de la médecine, p. 11.

<sup>61</sup>Ibid., p. 13.

<sup>62</sup>Sarton, Introduction to the History of Science, 3:1075.

<sup>63</sup>Ibid., Hahn, et al, Histoire de la médecine, p. 11.

<sup>64</sup>Franklin, Anciennes bibliothèques, 2:135, 323, 377.

<sup>65</sup>Puschmann, History of Medical Education, p. 268.

<sup>66</sup>Harvey Graham, The Story of Surgery (New York: Doubleday, Doran & Co., Inc., 1939), p. 102.

operations around 1260,<sup>67</sup> and it survived until the French Revolution.<sup>68</sup>

The Collège de St. Côme began as a loosely constituted guild, a confraternity whose early objectives included the promotion of good fellowship, aiding distressed members, conducting funerals, and paying for requiem masses. At its height the institution was well organized under a duly appointed provost. Like their medical colleagues the surgeons required the students to have a working knowledge of Latin and two years' study at the University of Paris with majors in medicine and philosophy. Once at St. Côme the student took surgical courses for two years, and served as an apprentice attached to a Master of the College. Now each became a bachelor. After paying a fee of one franc, they also became a member of the College.

Following further study, the students paid another fee of twelve gold crowns, took the Hippocratic oath and assumed the position of Licentiate. They henceforth practiced surgery in Paris and its environs. Four years later the Licentiates might become Masters, a position which entitled them to assume the charge of apprentices.

Members of the Collège wore long robes. This costume

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<sup>67</sup>Fielding H. Garrison, Contributions to the History of Medicine (New York: Hafner Publishing Company, 1960, p. 95.

<sup>68</sup>Sarton, Introduction to the History of Science, 3:864.

distinguished them from barbers, who were known as gentlemen of the short robe.<sup>69</sup> It also somewhat symbolized a protracted struggle on two fronts in which the surgeons were engaged. They sought to obtain the respect and the privileges of the physicians and to limit the practice of the barbers.<sup>70</sup> Most people allowed the barbers, who had little or no medical instruction in an institution like St. Côme, to operate upon them, chiefly through the performance of bloodletting procedure.<sup>71</sup>

Both church and state, however, joined forces with the surgeons to end the existence of all quackeries. In 1220 quacks were forbidden to function in Paris. In 1311 one of their number was excommunicated<sup>72</sup> and Philip IV decreed that all surgeons henceforth must be examined by a board under the presidency of the King's surgeon and licensed in the Chatelet.<sup>73</sup> Eventually the barbers were restricted to blood letting and the healing of wounds.<sup>74</sup> In 1372 Charles V gave them that privilege, free of worry of interference by the

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<sup>69</sup>Graham, Story of Surgery, pp. 103, 127.

<sup>70</sup>Sarton, Introduction to the History of Science, 3:291, 864.

<sup>71</sup>Puschmann, History of Medical Education, p. 267.

<sup>72</sup>Ibid., p. 277; Rashdall, Universities in the Middle Ages, 1:425.

<sup>73</sup>Puschmann, History of Medical Education, p. 268; Rashdall, Universities in the Middle Ages, 1:425.

<sup>74</sup>Garrison, Contributions to the History of Medicine, p. 172.

long robes.<sup>75</sup> Finally, in 1423 the Prévôt de Paris specifically prohibited all barbers in the city from practicing surgery.<sup>76</sup>

Probably the first members of the Collège de St. Côme were Frenchmen. They were soon joined by surgeons from Italy, who brought with them the latest medical developments.<sup>77</sup> They began a tradition that persevered until the end of the sixteenth century of Italian exiles teaching French surgeons the most up-to-date knowledges in their craft.<sup>78</sup> Many of these immigrants and their French colleagues who practiced both surgery and medicine became identified as Medeci Chirurghi.<sup>79</sup>

Of these surgeon-physicians from outside France the most famous was Lanfranc of Milan. It was he who set St. Côme on the path to becoming one of the leading medical and surgical schools of Europe and it was at St. Come that he wrote his Chirurgia Magna, which he dedicated to King Philip IV. Before his death in 1315 he became virtually the father of French surgery. In attracting attention to himself he also did so for the institution in which he taught.<sup>80</sup>

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<sup>75</sup>Graham, Story of Surgery, p. 127.

<sup>76</sup>Laignel-Lavastine, Histoire de la médecine, 2:78.

<sup>77</sup>Sarton, Introduction to the History of Science, 2:785.

<sup>78</sup>Castiglione, History of Medicine, p. 337.

<sup>79</sup>Puschmann, History of Medical Education, p. 267.

<sup>80</sup>Graham, Story of Surgery, pp. 102, 127.

Lanfranc made his students familiar with the humoral theory, long dominant in medical practice but still unincorporated in surgical practice. He also decried the tendency toward the separation of the crafts of the surgeon and the physician stating that a knowledge of both was essential to each.<sup>81</sup> Guy de Chauliac, who flourished around 1350, was the greatest surgeon in medieval France and one of the greatest during the entire middle ages.<sup>82</sup>

From humble beginnings the University of Paris' Faculty of Medicine rose to a prominent position as one of the leading centers of medieval Europe. Its medical department first divided itself into two and later three schools, which combined into one faculty by 1270. Throughout the period this school could not find a permanent home for its studies until the fifteenth century. This brief history of the organization of the Faculty of Medicine must now trace the growth of its library by listing the various authors who possibly contributed to its shelves the texts, the research books, and the other materials needed during this period.

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<sup>81</sup>Puschmann, History of Medical Education, p. 268;  
Graham, Story of Surgery, p. 268.

<sup>82</sup>Puschmann, History of Medical Education, pp. 217-72.

### CHAPTER III

#### AUTHORS IN THE PARIS LIBRARIES, 1050 TO 1250

Until the twelfth century the schools of Paris based their medical traditions and texts on the works written during the early middle ages in various monasteries. Beginning about 1100 and continuing through the next 150 years the Faculty of Medicine of the University of Paris received works from the new source for improved medical knowledge, Salerno. This transmission was accomplished mainly through the efforts of Odo of Meung and Aegidius de Corbeil.<sup>1</sup> In their writings can be seen the flow of Salernitan knowledge into Paris. These authors and other unknown contemporaries were trained at Salerno and probably brought some texts with them to Paris. The new information was given to other French and English writers of the early thirteenth century, who through their works established Paris as a leading medical school.<sup>2</sup>

Medieval authors contributed works directly and indirectly to the medical libraries of Paris. The oldest European contributor was Constantinus Africanus.<sup>3</sup> Before he

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<sup>1</sup>Fielding H. Garrison, An Introduction to the History of Medicine (Philadelphia: W. B. Saunders Company, 1929, pp. 140-41.

<sup>2</sup>Ernest Wickersheimer, Dictionnaire biographique des médecins en France au moyen age, 2 vols. (Paris: Librairie E. Droz, 1936), 1:58-59, 2:758.

<sup>3</sup>Philip K. Hitti, History of the Arabs from the Earliest Times to the Present (New York: St. Martin's Press, 1960), p. 579.



died in 1087 at Monte Cassino he translated many works originally composed by Greek and Muslim authors,<sup>4</sup> of which one, the Theorica et Practica Medicinæ, is listed in the Bibliothèque National.<sup>5</sup> This is probably the Pantegni of Haly Abbas (d. 994).<sup>6</sup> It formed the basis of medical teaching at Salerno and other medical centers.<sup>7</sup>

John Afflacijs, one of Constantinus' disciples, completed the works of his master. He lived from 1040 to around 1103. Besides his translations he wrote treatises on urology and fevers.<sup>8</sup>

These translations inspired the writing of new anatomical texts. The first of these written during the late eleventh century, was entitled the Anatomia porci. It has been arbitrarily ascribed to one of two Salernitan teachers, both of whom had the same name, Copho. While employing ancient and

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<sup>4</sup>Paul O. Kristeller, "The School of Salerno; Its Development and Its contribution to the History of Learning," Bulletin of the History of Medicine, 17(1945):151-53.

<sup>5</sup>Alfred L. A. Franklin, Histoire de la bibliothèque de l'abbaye de Saint Victor à Paris (Paris: A. Aubrey, 1865), p. 80.

<sup>6</sup>Gabriel Compayré, Abelard and the Origin and Early History of Universities (New York: Ams Press, Inc., 1963), p. 250; Charles H. Haskins, Studies in the History of Mediaeval Science (New York: Frederick Ungar Publishing Co., 1960), p. 132.

<sup>7</sup>Kristeller, "School of Salerno," pp. 153, 155, 156.

<sup>8</sup>Sarton, Introduction to the History of Science, 1:769-70; Garrison, Introduction to the History of Medicine, p. 139.

early medieval terms the book shows the influences of Greek and Muslim medicine appearing in works of western Europe. It contains a description of the dissection of a pig before a class in anatomy, including its neck, chest, abdomen, uterus, and brain. It deals only briefly with abdominal membranes and blood vessels. The cranium is the only part of the bone structure to be discussed. The whole work includes a combination of anatomical, physiological, and pathological ideas.<sup>9</sup>

The Anatomia porci began a tradition of medical writings originating in Salerno, which was given impetus by the writings of two men in the last half of the twelfth century. The first of these men was Magister Maurus. He was a resident in Salerno from 1160 to his death in 1214.<sup>10</sup> The name of the second was Nicolaus Salernus, who died c. 1087, the ascribed author of the Antidotarium.<sup>11</sup> The Antidotarium contains 140 recipes and combines ancient and early medieval knowledge with the newly discovered findings of Muslim scholars translated by Constantinus Africanus.<sup>12</sup>

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<sup>9</sup>Leroy Crummer, "Copho's 'Anatomia Porci,'" Annals of Medical History, 9(1927):180-82.

<sup>10</sup>Arturo Castiglione, A History of Medicine, ed. and trans. Edward B. Krumbhaar (New York: Knopf and Company, 1941), p. 317; Kristeller, "School of Salerno," p. 158; George W. Corner, Anatomical Texts of the Earlier Middle Ages. A Study in the Transmission of Culture (Washington, D.C.: Carnegie Institution of Washington, 1927), p. 29.

<sup>11</sup>Edward Kremer and George Urdang, History of Pharmacy, 3rd ed. Edited by Glenn Sonnedeker (Philadelphia: J. B. Lippincott Company, 1963), p. 426.

<sup>12</sup>Sarton, Introduction to the History of Science, 2:239-40.

Maurus composed the Regulae urinarum; in which he employed the writings of Theophilus, a Byzantine physician of the seventh century (as translated by Constantinus Africanus), and Isaac, an Egyptian-Jewish doctor of the tenth century. He also authored the Anatomia mauri, the De flebotomia, and a commentary on Hippocrates' Aphorisms.

The Anatomia, also based largely on Constantinus' translations, was one of the earliest Latin texts to show some independence from its sources. It describes the pig with a full analysis of its brain, skull, and eye. The De flebotomia discusses venesection.<sup>13</sup>

About the same time as the Anatomia mauri there was composed another anatomical text, the so-called Anatomia Ricardi, whose origin is unknown. Vincent of Beauvais, who considered it of anonymous origin, called it Libro de anathomia. In a copy found in the Paris Bibliothèque Nationale the work is ascribed to Richard of England. Thomas of Cantimpre<sup>14</sup> ascribed it to Galen.<sup>15</sup> The real author may have been one of two unknown teachers at Salerno, Ricardus or Nicolaus II Salernus. The Anatomia Ricardi is more systematic than the earlier

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<sup>13</sup>Ibid., p. 436.

<sup>14</sup>Lynn Thorndike, History of Magic and Experimental Science, 8 vols. (New York: Columbia University Press, 1923-1958), 2:372-75.

<sup>15</sup>Corner, Anatomical Texts of the Earlier Middle Ages, p. 43.

treatises on anatomy and attempts for the first time to describe the human body directly. It may have resulted from the lectures of an instructor in the Salerno school. Unfortunately, because of the sack of Salerno in 1193 the records of this period, which might have contained the solution to this problem, have apparently been lost.<sup>16</sup>

Still another Salernitan work which influenced the Paris masters was De simplici medicine, which was better known as the Circa instans. Its author was Matthaeus Platearius, (d. 1161) who was probably the son of Joannes Platearius. Two versions of this work were located in the medieval libraries. One contains 273 chapters, the other, 432. In both the drugs listed are in alphabetical order with an accompanying description, instructions for application, and notes on determining their purity. Their Greek, French, and Italian names are also given.<sup>17</sup>

In the Sorbonne's catalog of 1290 appears a listing of Originalia Haymonis, Hildegardis,<sup>18</sup> by St. Hildegard of Bingen. She was a German nun, born at Bockelheim on Nahe near Sponheim, who spent her life in Bingen, where she died in 1179. In addition to the Haymonis, the full title of which is Liber divinorum operum simplicis hominis, written between

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<sup>16</sup>Ibid., pp. 31, 43.

<sup>17</sup>Sarton, Introduction to the History of Science, 2:241.

<sup>18</sup>Alfred L. A. Franklin, Les anciennes bibliothèques de Paris, 3 vols. (Paris: Imprimerie Impériale, 1867-1873), 2:305.

1163 and 1170, Hildegard contributed two other works, the Physica and the Causae et curae.<sup>19</sup>

The Haymonis discusses cosmology and anatomy without mentioning the terms "macrocosm" and "microcosm" but nevertheless describing Hildegard's ideas about their relationship. The Physica is an encyclopedia which discusses natural history and cloister medicine. It is based upon Hildegard's knowledge of Benedictine and popular traditions. The Causae et curae is a compilation of popular traditions concerning pathology and therapeutics. The drugs listed within are derived from local plants and herbs. Noteworthy are her observations of symptoms which she diagnoses as leprosy but which seem to resemble syphilis.<sup>20</sup>

Between 1100<sup>21</sup> and 1161<sup>22</sup> appeared the first book written by a Parisian. It was entitled Macer Floridus de virtutibus (or viribus) herbarum. Its author is believed to have been Odo of Meung.<sup>23</sup> The Macer Floridus is a hexameter poem of

<sup>19</sup>William A. Fitzgerald, "Medical Men Canonized Saints," Bulletin of the History of Medicine, 22 (1948):642; Gertrude M. Engbring, "Saint Hildegard, Twelfth Century Physician," ibid., 8(1940):770-74.

<sup>20</sup>Sarton, Introduction to the History of Science, 1:386.

<sup>21</sup>Ibid., p. 765.

<sup>22</sup>Fielding H. Garrison, Contributions to the History of Medicine (New York: Hafner Publishing Company, 1966), p. 94.

<sup>23</sup>Ernest Wickersheimer, Dictionnaire biographique des médecins en France au moyen age, 2 vols. (Paris: Librairie E. Droz, 1936), 2:476.

2,269 lines, which describe the virtues of 77 herbs and roots. The author was influenced by the translations of Constantinus Africanus and his work marks the first appearance in Paris of translated Arabic writings and the revival there of interest in botany and pharmacy.<sup>24</sup>

A contemporary of Odo was Marbod, born 1035 in Angers, where he died in 1123. From 1096 on he was Bishop of Rennes.<sup>25</sup> His work was the Liber lapidum, which he wrote between 1067 and 1101. In it, a 743-line hexameter poem, he discusses the medical properties of sixty precious gems. The Liber lapidum was a highly popular work, translated from the original Latin into French, Provencal, Irish, Italian, Hebrew, Danish, and Spanish.<sup>26</sup>

Also flourishing at this time were two Salernitans, Petrus de Musanda and John de Sancto Paulo. Petrus probably was the first of the two to practice in the medical profession. He was a teacher of Aegidius de Corbeil. The work that brought him notice was a study on diet, known by various titles, including Summula de cibis et potibus febricitantium. A manuscript of this study remains today in the Bibliothèque

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<sup>24</sup>Sarton, Introduction to the History of Science, 1:765.

<sup>25</sup>Charles J. Singer, ed., Studies in the History and Methods of Science, 2 vols. (Oxford: Clarendon Press, 1917-1921), 2:73.

<sup>26</sup>Sarton, Introduction to the History of Science, 1:764.

Nationale in Paris.<sup>27</sup> John was perhaps a Frenchman. At any rate he resided in Paris. His chief works were the De simplicium medicinarum virtutibus, the Practica or Breviarium, and the Flores diaetarum. The Flores diaetarum was once ascribed to Bernard Gordon and other medieval authors.<sup>28</sup>

The records available reveal only shadowy information concerning the preceding authors. Much better known were two physicians who apparently wrote no books but through their preservation of the medical tradition in Paris made possible the writings of those who came after them. The first of these was the physician Obizon, mentioned in the previous chapter.<sup>29</sup> He was one of the two favorite doctors of Louis VI ("le Gros").<sup>30</sup> When he retired from practice, he went to St. Victor. There he died<sup>31</sup> in either 1138 or 1140.<sup>32</sup> His last recorded act was the bequeathal of his Bible to the monastery,<sup>33</sup> and his epitaph has been preserved.<sup>34</sup>

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<sup>27</sup>Ibid., 2:242; Wickersheimer, Dictionnaire biographique, 2:652.

<sup>28</sup>Stephen d'Irsay, "The Life and Works of Gilles de Corbeil," Annals of Medical History, 7(1925):362-63; Sarton, Introduction to the History of Science, 2:439-40.

<sup>29</sup>See above, pp. 14-15.

<sup>30</sup>Franklin, Anciennes bibliothèques, 2:139.

<sup>31</sup>Ibid.

<sup>32</sup>Wickersheimer, Dictionnaire biographique, 2:582.

<sup>33</sup>Franklin, Anciennes bibliothèques, 2:138.

<sup>34</sup>Ibid., p. 139.

The other favorite physician of Louis VI was Hugh Physicus. He was Obizon's replacement in the position. He also taught in Paris, where he died in 1199.<sup>35</sup>

Succeeding Hugh Physicus as court physician--the monarch now was Philip II--was Aegidius de Corbeil.<sup>36</sup> He took his name from his birthplace.<sup>37</sup> His master at Salerno was Romoald, court physician to Pope Clement III, to whom he dedicated his De laudibus et virtutibus,<sup>38</sup> and among his teachers was Petrus de Musanda.<sup>39</sup> Aegidius arrived at Salerno when the first systematic studies of animal anatomy were being carried out. He and other students studied texts that featured observations of clinical cases and discoveries in anatomy derived from animal dissections by the Salernitan physicians. These they sought to reconcile with the doctrines of their beloved Roman master Galen and in the process were on the way to discovering the necessity of continuous examination and reappraisal of findings derived from actual experience.<sup>40</sup>

After Aegidius reached Paris, he became canon at Notre

<sup>35</sup>Wickersheimer, Dictionnaire biographique, 1:308.

<sup>36</sup>Sarton, Introduction to the History of Science, 2:440-41; Castiglione, History of Medicine, p. 328.

<sup>37</sup>d'Irsay, "Life and Works of Gilles de Corbeil," p. 362.

<sup>38</sup>Ibid.

<sup>39</sup>Sarton, Introduction to the History of Science, 2:440.

<sup>40</sup>Castiglione, History of Medicine, p. 317.



Dame Cathedral of that city and physician to Philip II.<sup>41</sup> Like his predecessors in the position at court he taught at the University. With his teaching and writings, the greater part of which he completed before 1220,<sup>42</sup> he introduced the knowledge and methods of Salerno into Paris.<sup>43</sup> He died in Paris between 1220 and 1224.

All of his works were written in leonine verse for didactic purposes. They became the main source for the new medical knowledge imbibed by the Parisian physicians throughout the thirteenth century. He was well acquainted with Greek, Muslim and Latin medical information, which he combined in good style.<sup>44</sup>

His De urinis contains 352 lines. Its sources were Magister Maurus's Regulae urinarum, which had utilized the writings of Theophilus Protospatharios and Isaac.<sup>45</sup> With such eminent authorities behind it the De urinis became the most popular uroscopic text of the middle ages and was as late as the end of the sixteenth century still considered a classic.<sup>46</sup>

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<sup>41</sup>Maxime Laignel-Lavastine, Histoire générale de la médecine, de la pharmacie, de l'art dentaire, et de l'art vétérinaire, 3 vols. (Paris: Bertrand Guegau, 1936-1950), 2, 80.

<sup>42</sup>Garrison, Contributions to the History of Medicine, p. 94; d'Irsay, "Life and Works of Gilles de Corbeil," p. 366.

<sup>43</sup>Laignel-Lavastine, Histoire de la médecine, 2:80.

<sup>44</sup>Castiglione, History of Medicine, p. 316; d'Irsay, "Life and Works of Gilles de Corbeil," pp. 366, 370.

<sup>45</sup>See above p. 28.

<sup>46</sup>Castiglione, History of Medicine, p. 317.

Next in popularity was the De pulsibus, a poem of 380 lines. It and the De urinis combined under the title Versus Aegidii served as the University of Paris's text-book.<sup>47</sup>

Not so popular was the De laudibus et virtutibus compositorum medicaminum, an antidotary of 4,600 lines which Aegidius composed in 1195, five years before going to Paris. However, the Antidotarium Nicolai of Nicolaus Salernus and the Circa instans of Mathaeus Platearius were considered better and used in its place in medical schools.<sup>48</sup> The antidotary of Aegidius contains a criticism of the pharmaceutical faculty of Salerno for accepting as texts only books containing recipes and rejecting all others having no formulae but still valuable for a proper study and for granting youths licenses to teach.<sup>49</sup>

Of his other two medical works the Viaticus is a 2358-line pathological treatise based on Galenic sources. The De physiognomiis, which some authorities consider a part of the Viaticus, continues the tradition set by the Physiognomica of

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<sup>47</sup>d'Irsay, "Life and Works of Gilles de Corbeil," p. 366.

<sup>48</sup>Ibid., pp. 367-68; Sarton, Introduction to the History of Science, 2:440-41.

<sup>49</sup>John H. Bass, Outline of the History of Medicine and the Medical Profession, ed. and rev. Henry E. Handerson (New York: J. H. Vail and Company, 1889), p. 263; Karl Sudhoff, "A Medical Health Resort and Medical School on the Tyrrhenian Sea," trans. John C. Hemmeter and Fielding H. Garrison, in ibid., Essays in the History of Medicine, ed. Fielding H. Garrison (New York: Medical Life Press, 1926), p. 245.

Polemon, a doctor of the second century, and the writings of Adamantios, a Roman of the fourth century, which enjoyed much favor during the middle ages.<sup>50</sup> The book shows vague connections with anatomy, physiology, and medicine, but like all text-books on the subject (physiognomy) it is replete with superstitions.<sup>51</sup>

The church permitted the study of the ancients and the Muslims. At the same time, it frowned upon all practices and statements it considered heretical. A certain way to prevent such in the fields of medical instruction and activities was to insist that all Christian physicians be bachelors, hence priests.<sup>52</sup> The result was corruption in the care of benefices. Against such mismanagements Aegidius addressed his Ierapigra ad purgandos prelatos, a satire of 5,929 lines which flayed his contemporaries in the profession for their alleged lack of morals. The work might have gotten him into trouble with his superiors, but instead it came to be a fixture in libraries all over western Europe.<sup>53</sup>

In all his works appear instructions on the treatment of patients and descriptions of operations. Of his many contributions those with respect to urine, pulse, and skin diseases

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<sup>50</sup>d'Irsay, "Life and Works of Gilles de Corbeil," pp. 368, 369-70

<sup>51</sup>Sarton, Introduction to the History of Science, 2:309.

<sup>52</sup>James J. Walsh, The Popes and Science (New York: Fordham University Press, 1911), pp. 228-29.

<sup>53</sup>Sarton, Introduction to the History of Science, 2:440-41.

were very influential in the later Middle Ages.<sup>54</sup>

While Aegidius de Corbeil was flourishing in Paris, a poetical version of a work entitled Practica chirurgia--its author was Roger of Salerno<sup>55</sup>--appeared in the Provençal language. Roger was Salerno's most important surgeon in the twelfth century, a man of great skill, who set down his actual experiences in his work. The author of the poetic translation was Raimon of Avignon. His was apparently the first effort in the field of surgical writing by a non-Italian.<sup>56</sup>

The Practica chirurgia, also known as Post mundi fabricam, was the earliest surgical treatise of the Christian West. It became the accepted canon of surgery in the middle ages, and it was continually enlarged and extended in editions appearing in Bologna, Montpellier, and elsewhere.<sup>57</sup> It was of course the official textbook in surgery of Salerno. These ever-swelling "Roger-glosses" in time became united with the newer Muslim surgical ideas. They were translated also into French and German.<sup>58</sup>

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<sup>54</sup>Castiglione, History of Medicine, pp. 316-17; Laignel-Lavastine, Histoire de la médecine, 2:80.

<sup>55</sup>Alfred J. Brown, Old Masterpieces in Surgery (Omaha: privately printed, 1928), p. 43.

<sup>56</sup>Sarton, Introduction to the History of Science, 3:339.

<sup>57</sup>Garrison, Introduction to the History of Medicine, p. 141-42.

<sup>58</sup>Harvey Graham, The Story of Surgery (New York: Doubleday, Doran, & Co., Inc., 1939), pp. 97-98; Sudhoff, "A Medical Health Resort," p. 244.

Roger's work indicates an acquaintance with the works of Constantine the African but reveals also the results of the author's work on the operating table. One notable addition is the use of mercury salt to fight parasites and chronic dermatoses.<sup>59</sup>

Another early thirteenth-century contemporary of Aegidius de Corbeil was John de Sancto Egidio. He was first a professor at Montpellier, then a court physician to Philip II. During his lifetime he produced a treatise on anatomy, which contains some meritorious elements.<sup>60</sup>

More important, perhaps, were Roland of Parma and the Four Masters, who continued on the path that Roger of Salerno had blazed. Roland was a disciple of the Salerno surgeon and his Chirurgia rolandina was an elaboration and commentary on the master's production. However its pages show a stronger Arabian influence than did the older work.<sup>61</sup> The Four Masters, probably residents of France, wrote the Glossulae quatuor magistrorum super chirurgiam Rogerii et Rolandi, which as the title shows is a gloss on both Roger and Roland. This work sets forth a new technique for the treatment of goiter. The use of seaweed ashes foresees the modern method of the use of

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<sup>59</sup>Graham, Story of Surgery, pp. 97-98.

<sup>60</sup>Laignel-Lavastine, Histoire de la médecine, 2:80.

<sup>61</sup>Graham, Story of Surgery, p. 98.

iodine to reduce enlargement and overaction of the thyroid gland.<sup>62</sup>

At the time Roland was writing his Chirurgia an anonymous surgeon, known as Mesue III, was creating his Cyrurgia Joannes Mesue, a book in five parts. Of its divisions the first discusses medical generalities, such as the qualities of the surgeon and his practice, the second contains a list of simple medicines, and the fifth is an antidotarium.<sup>63</sup> Lanfranc and others utilized the work in their writings.<sup>64</sup>

A Parisian contemporary of John de Sancto Egidio was Richard of England. Aegidius de Corbeil spoke of someone with that name who was a physician--an old man who had taught him.<sup>65</sup>

The work ascribed to Richard of England is the Anatomia Ricardi Anglici, or the Anatomia vivorum. It contains many sections of Avicenna's Canon, some parts of which are quoted verbatim. Hippocrates, Rasis, and Isaac are represented in its pages. Pointing out differences between Aristotle's and Galen's theories on the supremacy of the heart over the other organs and the origins of veins, the work concludes with

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<sup>62</sup>Ibid.

<sup>63</sup>Sarton, Introduction to the History of Science, 2:62.

<sup>64</sup>Ibid., p. 1080.

<sup>65</sup>Corner, Anatomical Texts of the Earlier Middle Ages, pp. 41-43.

comments favorable to Aristotle. This was one of the few anatomical texts written between 1210 and 1240.<sup>66</sup>

Richard of England is also perhaps the author of the Micrologus. This is a brief medical encyclopedia based on Greek and Muslim knowledge available in Latin translations, and other writings.<sup>67</sup> In the past Richard of England has been associated with Richard of Wendover, an English physician and dean of St. Paul (1233). Recent studies have proven this fallacious.<sup>68</sup>

Still another physician whose work was in Paris was Walter Agilon, who was a Frenchman. Aegidius de Corbeil's influence can easily be traced in Walter's contributions to texts issued in the middle of the thirteenth century. These include his main works, the Summa medicinalis and Compendium urinarum, and his five lesser works, the Liber pulsuum, the Glossulae super versus Aegidii, the De febribus, the Summa or Practica, and the De dosi medicinarum. The Summa medicinalis is a text dealing with special pathology and therapeutics. Its theories are based upon uroscopy. The Compendium elaborates upon earlier studies in its field.<sup>69</sup>

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<sup>66</sup>Ibid., p. 37; Castiglione, History of Medicine, p. 353.

<sup>67</sup>Sarton, History of Science, 2:657.

<sup>68</sup>Charles H. Talbot and Eugene A. Hammond, The Medical Practitioners in Medieval England. A Biographical Register (London: Wellcome Historical Medical Library, 1965), pp. 270-71.

<sup>69</sup>Sarton, Introduction to the History of Science, 2:656.

Medieval encyclopedias contained often several sections or chapters on medical and other scientific subjects. Of the writers of encyclopedias Arnoldus Saxo was perhaps among the first. His writings were employed by Bartholomaeus Anglicus, Thomas of Cantimpré, and Albertus Magnus. Vincent of Beauvais quoted him.<sup>70</sup> Arnoldus flourished in lower Saxony about 1225. In his De finibus rerum naturalium, the second and third books discuss medical subjects, the first on the nature of animals and the second, the medical value of stones. The De naturis animalium is based upon the works of Aristotle, Dioscorides, and Marbod.<sup>71</sup>

Thomas of Cantimpré, was born 1201.<sup>72</sup> Educated at Liege, he joined the Dominican Order in 1232. From 1238 to 1240 he resided in Paris. Afterwards, he journeyed to Brussels and several other places, ending at the Louvain monastery, where until his death (of unknown date) he was sub-prior. His important scientific work bears the title Liber de natura secundum diversos philosophos. This is an encyclopedia of nineteen books which discusses zoology and botany. It quotes the Anatomia vivorum twenty-two times. This book has been consulted in the twentieth century by gynecologists and dentists; yet no critical edition of it exists.<sup>73</sup> One would

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<sup>70</sup>See below, pp. 41-42.

<sup>71</sup>Sarton, Introduction to the History of Science, 2:592.

<sup>72</sup>Singer, Studies in the History of Methods of Science, 2:189.

<sup>73</sup>Wickersheimer, Dictionnaire biographique, 2:758;



serve well to indicate the relationship of Thomas's work with that of Albertus Magnus and other contemporaries of the thirteenth century. It became available for readers around the same time as Bartholomaeus Anglicus' De proprietatibus rerum. The two works may have been rival ventures of the two orders of friars, the Dominicans to which Thomas belonged and the Franciscans, Bartholomaeus' group. Also interesting is the fact that Thomas used many works employed by Vincent of Beauvais,<sup>74</sup> indicating thereby the books employed by Vincent were in Paris.<sup>75</sup>

Of interest in Thomas of Cantimpré's Liber de natura are the eleventh, twelfth, and sixteenth chapters, covering physiology, anatomy, gynecology, aromatic and medical trees and plants, herbs, and the seven air regions and their corresponding humors. Serving as an appendix to the Liber de natura was a later work by the author, entitled the Extenso. The medical portion of the Extenso contains a Latin translation by John of Seville of an apocryphal work, the Epistola ad Aristotelis ad Alexandrum de conservatione corporis humani, essentially a confused treatise on physiognomy, dietetics, and other subjects.<sup>76</sup>

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Corner, Anatomical Texts of the Earlier Middle Ages, p. 39.

<sup>74</sup>Thorndike, History of Magic and Experimental Science, 2:373.

<sup>75</sup>See above, p. 12, 41-42.

<sup>76</sup>Sarton, Introduction to the History of Science, 2:592-93.

Bartholomaeus Anglicus named his nineteen book encyclopedia De proprietatibus rerum. In the Bibliothèque Nationale at Paris alone may be found eighteen manuscripts of it. Its title appears among the works offered for rent in a catalog circulated by Parisian medieval booksellers among students of the University.<sup>77</sup> Thirty-three editions were produced throughout the rest of the middle ages, either in the original Latin or in the several translations made of it.<sup>78</sup>

The most important of the early writers of encyclopedias, however, was Vincent of Beauvais, reader to King Louis IX and tutor to the king's son. His influence over the royal family of France was strong for years after his death. Among his writings are the Speculum Maius, which is divided into three parts, the Speculum naturale, the Speculum doctrinale, and the Speculum historiale. In both the Speculum naturale and the Speculum doctrinale (Books XII and XIV) medical articles appear. The sources are Hippocrates,<sup>79</sup> Plinius Secundus, Dioscorides, Palladius, Rasis, Avicenna, Averroes, Thomas of Cantimpré, Albertus Magnus, and other authorities.<sup>80</sup>

Vincent was familiar with the Beauvais episcopal library

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<sup>77</sup>Thorndike, History of Magic, 2:405.

<sup>78</sup>Laignel-Lavastine, Histoire de la médecine, 2:79; Wickersheimer, Dictionnaire biographique, 1:58-59.

<sup>79</sup>Pearl Kibre, "Hippocratic Writings in the Middle Ages," Bulletin of the History of Medicine, 18(1945):376.

<sup>80</sup>Laignel-Lavastine, Histoire de la médecine, 2:83.

in northeastern France. It was there that he completed his Speculum Maius before his entrance into the royal service.<sup>81</sup> For this reason the Beauvais library seems to be the most likely source for the 1200 books<sup>82</sup> which Vincent and his copyist supplied the royal library at St. Chapelle du Palais.<sup>83</sup> After the death of Louis, his will provided that the library be divided between the Dominicans of the Cordeliers, the Minorites, and the Cistercians.<sup>84</sup>

Michael Scot (c. 1175 to c. 1234)<sup>85</sup> was one of the founders of Latin Averroism.<sup>86</sup> No information exists as to the place of his birth. Undoubtedly, the name "Scot" identifies him as a native of Scotland, not Ireland. The first specific date in his career was August 18, 1217, when he completed a translation at Toledo, Spain. In October 1220 he was in Bologna and from 1224-1227 conducting a correspondence with the Vatican with respect to his being appointed Archbishop of

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<sup>81</sup>James W. Thompson, The Medieval Library (New York: Hafner Publishing Company, 1967), p. 251.

<sup>82</sup>Hastings Rashdall, The Universities of Europe in the Middle Ages, 2nd ed. rev., ed. F.M. Powicke and A.B. Emden, 3 vols (Oxford: Oxford University Press, 1958), 2:517.

<sup>83</sup>Thompson, Medieval Library, p. 258.

<sup>84</sup>Rashdall, Universities in the Middle Ages, 2:517.

<sup>85</sup>Charles J. Singer and Edgar A. Underwood, A Short History of Medicine (New York: Oxford University Press, 1962), p. 755.

<sup>86</sup>Sarton, Introduction to the History of Science, 2:579.

Canterbury. Soon afterward, he was in the service of Emperor Frederick II in Sicily, as the court astrologer. His later works were dedicated to Frederick. In 1236 some verses by Henry of Avranches mentioned the fact that Michael had died.<sup>87</sup>

Michael wrote mostly on philosophy and astrology. However, at the Sicilian court he also translated many Arabic works into Latin and among them was the De animalibus of Aristotle, of which the Physionomia and the De urinis are medical in substance.<sup>88</sup> Perhaps he influenced Frederick's ordering of the translations of Averroes' complete works, which in time were dispatched to the University of Paris,<sup>89</sup> by Frederick's son, Manfred.<sup>90</sup>

The Faculty of Medicine of the University of Paris was heavily influenced by the School of Salerno. Throughout the twelfth and early thirteenth centuries this first important medical school brought new ideas to Europe. The first group of writers including Constantinus Africanus and his pupils began to influence Paris through the works of Odo of Meung and his contemporary, Marbod, who lived during the twelfth century. At the end of that century Aegidius de Corbeil, a pupil of Salerno, brought most of its knowledge with him to

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<sup>87</sup>Haskins, Studies in the History of Medieval Science, pp. 272-76, ff.

<sup>88</sup>Ibid., p. 281.

<sup>89</sup>Sarton, Introduction to the History of Science, 2:575, 579.

<sup>90</sup>Haskins, Studies in Mediaeval Science, p. 269.

Paris. Through his writings and lectures at the new medical department he founded, he gave Paris students a first-hand account of the latest medical developments to that time. Only a slight influence can be demonstrated by the presence of the works of St. Hildegard of Bingen and the German encyclopedist, Arnoldus Saxo. On this basis the Paris physicians began to compile their own list of books from 1200.

## CHAPTER IV

### AUTHORS IN THE PARIS LIBRARIES, 1250 TO 1280

The middle years of the thirteenth century were dominated by German, French, and Spanish masters who either studied or taught at Paris. Giants like Albertus Magnus, the imprisoned Roger Bacon, John de St. Amando, and the physician-pope Petrus Hispanus benefited from the labors of earlier transmitters of Italian medical knowledge to the Faculty of Medicine at Paris.<sup>1</sup> During this period of the ascendancy of the medical faculty the Parisian surgeons were going through their own period of formative development. Harrassed at every turn by their medical contemporaries, who considered them quacks at best, they, under the direction of Jean Pitard, formed the Collège de St. Côme. Through Pitard they first learned of the extraordinary theories of Italian surgeons<sup>2</sup> of Bologna. Their period of importance would come at the end of the century.

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<sup>1</sup>George Sarton, Introduction to the History of Science, 3 vols (Baltimore: Carnegie Institution of Washington, 1931), 2:889, 934, 952, 1089; Fielding H. Garrison, An Introduction to the History of Medicine (Philadelphia: W. B. Saunders Company, 1922), p. 156.

<sup>2</sup>Fielding H. Garrison, Contributions to the History of Medicine (New York: Hafner Publishing Company, 1966), p. 95; Theodor Puschmann, A History of Medical Education (New York: Hafner Publishing Company, 1966), p. 268; Ernest Wickersheimer, Dictionnaire biographique des médecins en France au moyen age, 2 vols (Paris: Librairie E. Droz, 1936), 2:465.

Albert von Bolstadt, best known as Albertus Magnus, was one of the three giants in metaphysics during the thirteenth century. He was born in 1192 or 1193 in Lendigen (Lawingen), Swabia.<sup>3</sup> After his early training in his native land, he went to the University of Pavia, where he earned many academic honors. After receiving his degree, he joined the Dominicans in Padua in either 1222 or 1223. In time, he became first the provincial, then vicar general of the order, then in 1260, Bishop of Ratisbon. He resigned from the episcopate in 1262 to enter into retirement at Cologne.<sup>4</sup>

If he expected at Cologne to devote himself exclusively to scholarly pursuits, he was soon disappointed. He toured Germany, Bohemia, and Austria promoting another crusade against the Turk and engaging in other activities as well. In 1274 he was in attendance at the Council of Lyons. Until his death in 1280 he devoted his attention mostly to the education of the monks at Cologne.<sup>5</sup>

Although many of Albertus' works have disappeared in the passage of time, a sufficient number survive to fill

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<sup>3</sup>Arturo Castiglione, A History of Medicine, ed. and trans. E. B. Krumbhaar (New York: Knopf and Company, 1941), 349; Douglas Guthrie, A History of Medicine (Philadelphia: J. B. Lippincott Company, 1946), p. 121.

<sup>4</sup>Lynn Thorndike, History of Magic and Experimental Science, 8 vols (New York: Columbia University Press, 1923-1958), 2:525.

<sup>5</sup>Castiglione, History of Medicine, p. 349; Thorndike, History of Magic, 2:523, 525-26.

twenty-one quarto volumes.<sup>6</sup> Most deal with philosophy and theology but many include studies in the following natural sciences: arithmetic, astronomy, botany, chemistry, geology, geography, mechanics, medicine, music, optics, and zoology.<sup>7</sup> His chief influences were Maimonides, Aristotle,<sup>8</sup> and Hippocrates.<sup>9</sup>

His works on medicine include the following: various commentaries on Aristotle's biological writings; De animalibus, a compilation of anatomical and physiological questions; De vegetabilibus (1250), based upon the works of Nicholas of Damascus, a physician who flourished during the first century B. C.; and the Summa naturalium or Summa philosophiae naturalia, Philosophia pauperum, Philosophia naturalia, Physica pauperum, a discussion of the medical virtues of plants, and other short commentaries on medical subjects.<sup>10</sup>

Of these the Summa naturalium is especially important for the medical historian. It was used as a basic text until

<sup>6</sup>James J. Walsh, The Popes and Science (New York: Fordham University Press, 1911), pp. 134-35.

<sup>7</sup>Castiglione, History of Medicine, p. 349; Maxime Laignel-Lavastine, Histoire générale de la médecine, de la pharmacie, de l'art dentaire, et de l'art vétérinaire, 3 vols (Paris: Bertrand Guegau, 1936-1950), 2:81; Guthrie, History of Medicine, p. 121.

<sup>8</sup>Castiglione, History of Medicine, p. 349.

<sup>9</sup>Pearl Kibre, "Hippocratic Writings in the Middle Ages," Bulletin of the History of Medicine, 18(1945):376.

<sup>10</sup>Guthrie, History of Medicine, p. 121; Rene Dumesnil, Histoire illustre de la médecine (Paris, Editions d'Histoire et d'Art Libraire 1935), pp. 101-102.



the end of the sixteenth century.<sup>11</sup> Other commentaries on medical subjects attributed to Albertus are: Parva naturalia, De somno et vigilia, De aetate sive de iuventute et senectute, De spiritu et respiratione, De morte et vita, and De nutrimento et nutribili.<sup>12</sup>

Albertus' authorship of the Summa naturalium has been questioned.<sup>13</sup> Other works in this category include Liber aggregationes, seu secretorum de virtutibus herbarum, lapidum et animalium quorundam; Secreta mulierum et virorum; Liber de medicina; Experimenta medica; De secretis super Henricum de Saxonia de formato faetu; and De secretis naturae. The last four items may be alternate titles for the Secreta mulierum et virorum. All of them have also been ascribed to Henry the Saxon (Henricus Saxoniae).<sup>14</sup>

The Liber aggregationes discusses the magical properties of plants, animals, and stones, the Secreta mulierum, astrology and superstitions. Both of these works helped to make permanent Albertus' reputation as one of the masters of magic. Indeed treatises on the subject came to be classified under the heading Ars Albertina.<sup>15</sup>

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<sup>11</sup>Castiglione, History of Medicine, p. 349.

<sup>12</sup>Sarton, History of Science, 2:936.

<sup>13</sup>Thorndike, History of Magic, 2:692.

<sup>14</sup>Sarton, History of Science, 2:940-41; Thorndike, History of Magic, 2:720-745.

<sup>15</sup>Castiglione, History of Medicine, p. 349; Thorndike, History of Magic, 2:550 ff.

Albertus was one of the great lecturers of the middle ages. Wherever he went, there were thousands of students and other persons in his audiences. Many of those in attendance would in time become outstanding scholars. During his stay in Paris from 1222 and 1244, either at the College de St. Jacques or the Place de Maubert, he was always accompanied by illustrious persons. These included Roger Bacon, Thomas of Cantimpré, Vincent of Beauvais, Michael Scot, and Thomas Aquinas. The scholastic world acclaimed him as the "Doctor Universalis," the miracle of the century. Aquinas hailed him as "the Divine Master." Undoubtedly his death in 1280 marked a great loss to the field of learning.<sup>16</sup>

Following almost in his footsteps was another outstanding scholar of the thirteenth century, Roger Bacon. Not much of his early life and career seems to be known. He was probably born at Ilchester in Somersetshire, England around 1214. During his earlier years he became a Franciscan and studied in Oxford and Paris, where he received his degree. He also came under the influences of Albertus Magnus and Robert Grosseteste.<sup>17</sup>

At the pinnacle of his career he came to be identified

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<sup>16</sup>Castiglione, History of Medicine, p. 349.

<sup>17</sup>Nathan Schachner, The Mediaeval Universities (New York: A. S. Barnes & Company, Inc., 1962), pp. 240-41; Gabriel Compayré, Abelard and the Early History of Universities (New York: A. M. S. Press, 1969), p. 56.

by his students as the "Doctor Mirabilis" or wonderful doctor, because of the variety of talents and diversity of knowledge he possessed. He was proficient in Hebrew, Greek, and Arabic, and he studied optics, geometry, astrology, astronomy, alchemy, and "experimental science."<sup>18</sup> At great personal expense he collected many classical works.<sup>19</sup>

His contributions to knowledge were many. While he did not discover gunpowder, he did experiment with it and concluded that in explosives lay a method of transportation in the future. He did not invent the telescope, but he did more than perhaps anyone else in his day to make the principles of lenses clear and establish them on a mathematical basis. He also pointed out quite clearly the errors in the Julian calendar and the correction needed. He taught about the aberration of light, stating that it had a definite rate of motion, extremely rapid. He gave better descriptions of the anatomy of the vertebrate eye and optic nerves than those before him, urging that for better knowledge of such subjects dissections of cows and pigs should be performed.<sup>20</sup>

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<sup>18</sup>Hastings Rashdall, The Universities of Europe in the Middle Ages, 2 ed., ed. F. M. Powicke and A. B. Emden, 3 vols. (Oxford: Oxford University Press, 1958), 3:242; Walsh, Popes and Science, p. 327; Thorndike, History of Magic, 2:640.

<sup>19</sup>Compayré, Abelard, p. 59; Schachner, Mediaeval Universities, p. 241.

<sup>20</sup>Walsh, Popes and Science, pp. 116, 323; A. C. Crombie, Medieval and Early Modern Science, 2 vols. (Cambridge: Harvard University Press, 1963), 1:56, 104, 218.

The results of his studies and experiments he compiled in many important books, among which were Opus maius and Retardationes senectutis. Bacon also edited the Secretum secretorum, or Epistola Aristotelis ad Alexandrum de conservatione corporis humani, attributed to Hippocrates.<sup>21</sup> The Rogerina maior and the Rogerina minor were often erroneously attributed to him. The Rogerina maior was another title by which the Practica Chirurgia of Roger of Salerno was known. The Rogerina minor was written by Roger Baron.<sup>22</sup>

Of his written works the Opus maius combines science, theology, and magic into one complete work in which the theory of natural magic and experiment is expressed. It has been called the most scientific treatise that appeared during the middle ages. In it Bacon spoke of the use of convex lens to compensate for long sight. In the Opus tertium he expressed the belief that it would be more than possible for the art of science to discover such things that are capable of prolonging human life for much longer periods than can be accomplished by nature.

His best known and longest medical writing is the Retardationes senectutis, which displayed in another instance Bacon's deep interest in prolonging life. It reveals little of value and may indeed be Bacon's worst medical work. Best

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<sup>21</sup>Kibre, "Hippocratic Writings in the Middle Ages," p. 376.

<sup>22</sup>Sarton, Introduction to the History of Science, 2:959.

of all, perhaps, is the De erroribus medicorum, in which he severely criticised physicians and apothecaries for their widespread superstitions and faulty practices. He also promoted the idea of the supremacy of experimentation over both authority and argument.<sup>23</sup>

Bacon was undoubtedly an original thinker, yet not quite free of what would be considered superstitions today. He believed that a doctor in order to be most efficient must utilize the knowledge of astronomy in his practice. The stars, Bacon stated, were responsible for prolonging life, the body being governed each hour by a different planet. He distributed the parts of the body among the signs of the zodiac. The physician, he said, must observe the mood most carefully while treating his patients.<sup>24</sup>

As shown in the De erroribus medicorum, Bacon indulged in open criticism of whatever he felt was wrong in the society of his day. The Opus maius contains a catalog of faults in the Church: its music and sermons, the immorality of its monks and theologians, and the misconduct of students at Oxford and Paris. He was especially scornful of the translations of the ancient works and of scholarship in general.<sup>25</sup>

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<sup>23</sup>Thorndike, History of Magic, 2:635, 678; Castiglione, History of Medicine, p. 352; Crombie, Medieval and Early Modern Science, 1:54.

<sup>24</sup>Thorndike, History of Magic, 2:670-71.

<sup>25</sup>Ibid., p. 634; Will Durant, The Age of Faith (New York: Simon and Schuster, 1950), p. 912.

As a consequence of his attitude, or perhaps because he indulged in magic or purchased expensive vellum paper in spite of his order's injunction against it, Bacon apparently suffered imprisonment from 1278 to 1292, shortly after which he died. He may also have been confined to his quarters for a period prior to 1278, which a letter written to him by Pope Clement IV seems to indicate.<sup>26</sup>

Somewhat older than Roger Bacon and like Aegidius de Corbeil a physician of the French court was John de St. Amando. He was born around 1200 in St. Amand, now part of Belgium. He studied primarily at the University of Paris, and later he became a prominent member of its faculty. He also accepted the position of canon at Tournai. For most of the thirteenth century he held his post on the faculty, helping to revive the study of Galen's system of medicine. Through his many poems and compilations he introduced into Europe the learning of the Arab doctors, especially Avicenna.<sup>27</sup>

John de Sancto Amando was mainly a compiler and his works are largely didactic. They are also free of criticisms, even though he sought through his labors at the university to free medical education from the bonds of scholastic reliance

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<sup>26</sup>Walsh, Popes and Science, pp. 327-29; Thorndike, History of Magic, 2:620, 643, 675, 677; Schachner, Mediaeval Universities, pp. 243, 249-51.

<sup>27</sup>Alfred L. A. Franklin, Histoire de la bibliothèque de l'abbaye de Saint Victor à Paris (Paris: A. Aubrey, 1865), pp. 177-78.

upon argument and superstition, which he considered hindrances to its progress. He was one of the first of his profession in Europe to consider and discuss the experimental method. Nevertheless, he was neither a good observer nor totally free of the faults he disliked in others.<sup>28</sup>

His important works are the Expositio sive additio super antidotarium nicolai, the Revocativum memoriae, and the Distinctio quorundam librorum Hypocratis et Galeni. The Exposito employs the Antidotarium of Nicolaus Salernus,<sup>29</sup> a work which contains strong Arabic influences. One-half of its recipes came from translations by Constantinus Africanus. The popularity of this work, already in existence in the time of John de Sancto Amando, was increased by the appearance of the Expositio, which in time became as well-known as its main source.<sup>30</sup>

The Expositio deals in the general theories concerning the actions of drugs. It is divided into three main parts. The first discusses digestion, spontaneous and artificially produced evacuations, blood-letting, and the restoration and upbuilding of the convalescent's body. Here the emphasis is placed upon uroscopy, blood-letting and calendric diets.

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<sup>28</sup>Sarton, Introduction to the History of Science, 2:1089.

<sup>29</sup>Paul O. Kristeller, "The School of Salerno; Its Development and Its Contribution to the History of Learning," Bulletin of the History of Medicine, 17(1945):154.

<sup>30</sup>Sarton, Introduction to the History of Science, 2:1089.

Here as elsewhere in the work the author relies on Galen, Hippocrates, Rasis, Joannitius, Isaac, Haly Abbas, Avicenna, Serapion Jr., Constantinus Africanus, Matthaeus Platearius, Roger of Salerno, and, of course, Nicolaus Salernus. The work enjoyed a wide popularity and was translated later into Hebrew, Arabic, and other languages.<sup>31</sup>

The Revocativum memoriae is also organized in three sections, each of which could be considered an independent work. The first is known as the Areolae of Tractatus de virtutibus et operationibus medicinarum simplicum et compositarum; the second, the Concordantiae; and the third, the Abbreviations librorum Galenti, or Operum omnium rememorationes divisiones, sententiae summariae.<sup>32</sup>

The Aerolae is a materia medica compiled alphabetically according to the order known to pharmacists. It contains sections of various medicaments. Later, it lists in similar fashion diseases and their cures. Finally, it provides a list of formulae for prescriptions and defends the employment of compound drugs. Throughout the main sources are Nicolaus Salernus, Galen, Avicenna, Mesue Minor and Serapion Jr.<sup>33</sup>

The main section of the Revocativum is the Concordantiae. It is a collection of sentences from Galen

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<sup>31</sup>Ibid., pp. 1089-90.

<sup>32</sup>Ibid., p. 1090.

<sup>33</sup>Ibid.



and Avicenna arranged in alphabetical order, a dictionary of internal pathology in which the author attempts to show those differences and contradictions between his two authorities. Hence he gave it the title it bears. The idea was continued and expanded upon by the fourteenth-century author, Petrus de Sancto Floro, one of John de Sancto Amando's successors at the University of Paris.<sup>34</sup>

Flourishing also at mid-century was Gilbert of England at Montpellier.<sup>35</sup> His Compendium medicinae (Lilium, Laurea medicinae) reveals many important facts about the author. He was the first doctor evidently to recognize that smallpox is contagious, that surgery is useful in the treatment of cancer, and that travellers remain healthier if they carry with them distilled water to drink and on ocean voyages<sup>36</sup> fruit to eat. He mixed Aristotle's principles and logic and Galen's humoral theory with a useful regimen of diet, bathing, plasters, bleeding, and rubbing with ointments for the cure of disease.<sup>37</sup>

The seven books of the Compendium are derived from Muslim and Greek sources. The fifty chapters of the surgical section

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<sup>34</sup>Ibid., pp. 1089-90; Franklin, Bibliothèque de Saint Victor, p. 81.

<sup>35</sup>Crombie, Medieval and Early Modern Science, 1:233.

<sup>36</sup>Albert H. Buck, The Growth of Medicine from the Earliest Times to about 1800 (New Haven: Yale University Press, 1917), p. 305.

<sup>37</sup>Thorndike, History of Magic, 2:480.

follow closely Roger of Salerno's Chirurgia.<sup>38</sup>

A minor study, Experimenta magistri Gilliberti cancellarii montepessulani, sometimes attributed to Gilbert is of apocryphal origin. Its author may have been a certain Gillibertus who was chancellor of Montpellier (c. 1220). Here are quoted Averroes, Richard of England, and Roger of Salerno.<sup>39</sup>

In Paris a surgeon who became prominent around 1260 was Jean Pitard, probably a Norman. He was a surgeon in the court of the French monarchs, where during the reigns of Louis IX and his son Philip IV he assisted in the development of the College de St. Côme. Only one of his writings survive, a recipe in Latin and French. He is also remembered for his accomplishments in helping Henri de Mondeville banish Galen's salve surgery, replacing the old-fashioned method with the techniques of Theodoric.<sup>40</sup>

The life of Theodoric the surgeon is shrouded in mystery. Disagreement exists concerning whether Theodoric was the son or pupil of Hugo de Lucca, a famous Bolognese surgeon who taught that pus was a hindrance in healing wounds. Theodoric's identity is further clouded by questions about his being Theodoric Borgognoni, Bishop of Cervia, or Theodoric Precheur,

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<sup>38</sup>Sarton, Introduction to the History of Science, 2:658.

<sup>39</sup>P. Pansier, "Experimenta Magistri Gilliberti," Janus (1903), p. 22.

<sup>40</sup>Puschmann, History of Medical Education, p. 268; Wickersheimer, Dictionnaire biographique, 2:465.

a simple Dominican monk of Bitonto.<sup>41</sup> However, no doubt concerning the greatness of this surgeon, or his book exists. He has been called one of the most original surgeons of the middle ages.<sup>42</sup>

After the publication of the Cyrurgia Theodoric disappeared from view.<sup>43</sup> But the work was sufficient to justify fame for its author. It is a remarkable production in that it flies in the face of authority, even that of Roger of Salerno, the absolute authority on the surgeon's craft during the Middle Ages. Roger's Practica chirurgica contained one outstanding error, in advocating the induction of pus in wounds by the application of wet dressings and ointments--the "laudable pus" method of hastening recovery. Theodoric recommended instead the method of healing per primam (by first intention), that is by cleansing wounds and letting nature do the rest. Although in other matters he followed Galen, Avicenna, and Roger, and used as his model Bruno Longoburgensis he still employed observation and experience.<sup>44</sup>

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<sup>41</sup>Harvey Graham, The Story of Surgery (New York: Doubleday, Doran, & Co., Inc., 1939), p. 97; Louis Karl, "Theodoric de l'Ordre des prêcheurs et sa chirurgie," Bulletin de la Société Française, 23(1929):140-83.

<sup>42</sup>Richard A. Leonardo, History of Surgery (Froben Press, 1943), p. 110; Frederick Stenn, The Growth of Medicine (Springfield, Illinois: Charles C. Thompson, 1967), p. 125.

<sup>43</sup>Karl, "Theodoric de l'Ordre des prêcheurs et sa chirurgie," p. 152.

<sup>44</sup>Ibid., pp. 151, 169.

Because of his attitude, especially with respect to the induction of pus into wounds, he was castigated by Guy de Chauliac as a plagiarist and a teller of fairy tales. Nevertheless, Lanfranc studied and borrowed from him. Without recognizing the work's originality, scholars copied and translated Lanfranc's Cyrurgia into Catalan, Italian, French, English, German, and Hebrew.<sup>45</sup>

In the University of Paris at this time and mentioned in the chronicles was Peter of Limoges, the Canon of Evreux, who served as professor at the Sorbonne in 1272 and dean of the Faculty of Medicine from 1267 to 1270.<sup>46</sup> He was the true author of the De tractatus de oculo morale, a book which was attributed to John Peckham and Robert Grosseteste. The work is an ethical treatise on the morals of vision. It contains a brief description of the eye and a list of its various diseases and their cures.<sup>47</sup>

Peckham was a Franciscan who became the Bishop of Canterbury from 1279 to his death in 1292. He studied in Paris in 1250, becoming a Master of Theology. His De perspectiva offers some insights into the history of the anatomy of the eye.<sup>48</sup>

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<sup>45</sup>Ibid., pp. 153, 181; Sarton, Introduction to the History of Science, 2:635.

<sup>46</sup>Harold W. Jones, "The Faculty of Medicine of Paris," Annals of Medical History, 1(1939):5.

<sup>47</sup>Sarton, Introduction to the History of Science, 2:1029.

<sup>48</sup>Wickersheimer, Dictionnaire biographique, 2:461.

Another contemporary of Pitard was Petrus Hispanus, who was born in Portugal in 1210. His father was a physician, in whose profession the son prepared to follow. Petrus studied first at Montpellier and later at Paris, where he remained until his appointment as physician to Pope Gregory X. In the ranks of the Curia he advanced quite rapidly and on the death of Adrian V in 1276 became the first and only physician to achieve the papal seat as Pope John XXI.<sup>49</sup>

As pope he reigned but eight months. The ceiling of his palace at Viterbo collapsed on top of him, causing his death. Since it was he who befriended Roger Bacon and permitted him freely to pursue his studies, it is not surprising that some contemporary commentators claimed his death was a result of his having sold his soul to the devil in order to obtain intellectual prominence. On the other hand, Dante's Divine Comedy enobles him as the only pope worthy of a seat in Paradise.<sup>50</sup>

Petrus' theological, philosophical, and medical works derive from Greek and Muslim sources. They include the Liber de oculo, the Thesaurus pauperum, and a commentary on Isaac's Diaetae universalis et particulares. Although a practitioner of astrology the author in these works tries to

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<sup>49</sup>David Riesman, "A Physician in the Papal Chair," ibid., Annals of Medical History, 5(1923):293.

<sup>50</sup>Castiglione, History of Medicine, p. 350; Laignel-Lavastine, Histoire de la médecine, 2:80.

avoid the inclusion of superstitious practices and remedies, such as the powers of "sympathy."<sup>51</sup>

The Liber de oculo became a standard reference book. Arnaldus de Villanova, Guy de Chauliac, and Michelangelo, whose notes on its contents still survive intact in the Vatican library, used it for this purpose. As an example of its contents is its description of different cataract conditions in full detail, in which it speaks of an operation employing the use of gold needles. The Thesarus pauperum is an encyclopedia containing all the recipes of standard remedies for known diseases. It joined the Liber de oculo as a reference book, surviving in that capacity well into the sixteenth century.<sup>52</sup>

The high water mark of French medicine was thus the middle of the thirteenth century, from 1250 to 1280. During this thirty year span French writers outnumbered those of other lands who contributed to the shelves of Paris libraries. Besides the scholarly giants, Albertus Magnus, Roger Bacon, and the physician-Pope, Petrus Hispanus, prolific writers like John de Sancto Amando, flourished along side their not so prolific, but equally important colleagues, such as Peter

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<sup>51</sup>Castiglione, History of Medicine, p. 350.

<sup>52</sup>Lynn Thorndike and Pearl Kibre, Catalogue of Incipits of Mediaeval Scientific Writings in Latin (Cambridge: Mediaeval Academy of America, 1937), pp. 639-40; Castiglione, History of Medicine, p. 350; Laignel-Lavastine, Histoire de la médecine, 2:80; Crombie, Medieval and Early Modern Science, 1:231.

of Limoges, dean of the medical faculty in 1267. Then surgeons, led by Jean Pitard, began to make progress. The only outside influences came from Montpellier, through the work of Gilbertus Anglicus. In Italy Hugo de Lucca, and the enigmatic surgical marvel, Theodoric, were writing and teaching the revolutionary new methods of healing wounds without the need of inducing pus. Their work will affect Paris' schools at the end of the century.

## CHAPTER V

### AUTHORS IN THE PARIS LIBRARIES, 1280 to 1320

The last quarter of the thirteenth century and the first twenty years of the fourteenth century saw a return of Italian influence to a dominant role in both the Faculty of Medicine and the Collège de St. Côme. This time, however, the sources of Italian developments were natives of the various city-states of the area who were either exiled from their homes or sent to the vicinity of Paris by the Church.

Among the exiled Italians Lanfranc of Milan raised the Collège de St. Côme from a state of ill repute to one of respectability. He brought to it much of the Bolognese surgical and medical tradition.<sup>1</sup> The most important of the clerical contributions was that of Peter Torrigiana. In addition to the Italians there were the Frenchmen Henri de Mondeville, royal surgeon for the court of Philip IV, Arnaldus de Villanova, and Bernard Gordon. The last two were important physicians of Montpellier. The works of Arnaldus and Bernard, in addition to the earlier ones of Gilbert of England, were among the contributions of Montpellier to Paris.<sup>2</sup> Petrus de

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<sup>1</sup>George Sarton, Introduction to the History of Science, 3 vols (Baltimore: Carnegie Institution of Washington, 1931), 2:1079-80.

<sup>2</sup>Leopold Delisle, Inventaire de manuscrits Français de la Bibliothèque Nationale, 2 vols (Paris: H. Champion, 1878), 2:222; P. Pansier, "Experimenta Magistri Gillibertii," Janus (1903): p. 20.



Abano, in Paris and later at Padua, attempted to reconcile the various differences among the authorities.<sup>3</sup>

By the end of the thirteenth century French scholars were translating the latest productions of the Byzantine world from Greek into Latin. One of those so treated was the Antidotarium of Nicholas Myrepsus, physician to Joannes III Ducas Batatzes, claimant to the throne of Byzantium and Emperor of Nicaea from 1222 to 1254. Myrepsus enjoyed a long life, during which he traveled extensively.<sup>4</sup>

The Antidotarium<sup>5</sup> is based on the Antidotarium Nicolai of Nicolaus Salernus but is more comprehensive than its source. Nicolaus listed from 140 to 150 formulae, but Myrepsus compiled 2,656. The mention of musk, ambergris, camphor, and senna indicates the great amount of Muslim influence in the work of Myrepsus. Like other physicians of his time Myrepsus used mercury ointments to cure skin diseases.<sup>6</sup> The Faculty of Medicine of Paris held the work in high esteem. This fact was shown upon the completion of the translation, when the

<sup>3</sup>Ernest Wickersheimer, Dictionnaire biographique des médecins en France au moyen âge, 2 vols (Paris: Librairie E. Droz, 1936), 2:608-609; Lynn Thorndike, History of Magic and Experimental Science, 8 vols (New York: Columbia University Press, 1923-1958), 2:875-947.

<sup>4</sup>Sarton, Introduction to the History of Science, 2:1094.

<sup>5</sup>Edward Kremers and George Urdang, History of Pharmacy, ed. Glenn Sonnedeker (Philadelphia: J. B. Lippincott Co., 1963), p. 426.

<sup>6</sup>Sarton, Introduction to the History of Science, 2:1094.

members ordered all pharmacists to obtain a copy and follow its recipes.<sup>7</sup>

Around 1280 French culture was exerting an important impact on other European centers, so much so that one Italian physician living in France, Aldobrandinus of Siena wrote one of his works in French. This was the Régime du Corps. Aldobrandino died in 1287 in Trois, to whose neighboring monastery he left his collection of books. His Régime is drawn almost entirely from Greek and Muslim sources. It reproduces entire pages of the Canon of Avicenna, a whole chapter from the De stomachus of Constantinus Africanus, the entire diatetics of Isaac Judaeus, and portions of the works of Rasis, Galen, Aristotle, Diogenes, and Hippocrates.<sup>8</sup>

Another Italian physician who lived and died in France during the last decades of the thirteenth century was Simon of Genoa. Although he was born in Genoa, he practiced most of his life in Rome as chaplain and physician to Popes Nicholas IV and Boniface VIII. Then he moved to France and by the time of his death in 1296 was a canon at Rouen.<sup>9</sup>

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<sup>7</sup>Alfred L. A. Franklin, Recherches sur la bibliothèque de la Faculté de Médecine de Paris (Paris: A. Aubry, 1864), p. 10.

<sup>8</sup>Fielding H. Garrison, Contributions to the History of Medicine (New York: Hafner Publishing Company, 1966), p. 354; Arturo Castiglione, A History of Medicine, ed. and trans. Edward B. Krumbhaar (New York: Knopf and Company, 1941), pp. 353-55.

<sup>9</sup>Ernest Wickersheimer, Dictionnaire biographique des médecins en France au moyen âge, 2 vols. (Paris: Librairie E. Droz, 1936), 2:739.

Simon wrote Synonyme medicinae seu clavis sanationis (Synonyma medicinae, Clavis sanationis), a dictionary of materia medica. Completed before 1288 the work utilizes a dozen or more classical, Muslim, and medieval sources in the field of medicine. It also employs previous botanical<sup>10</sup> and linguistic studies.<sup>11</sup>

A third Italian writer flourishing at this time was Thadeus of Florence. He was one of the founders of the Bologna medical school and exerted a marked influence on his colleagues during the late thirteenth and early fourteenth centuries. Born in 1223 in Florence,<sup>12</sup> he arrived in Bologna twenty-two years later to study medicine. By 1260 he was a member of the faculty of the school.<sup>13</sup> Nine years later, he began a most prolific writing career.

Thadeus had a library well filled with standard authorities. They included the Canon of Avicenna, the Liber Alman-soris of Rhazes, and the medical works of the Greek masters. For his translations of these into Latin he preferred those

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<sup>10</sup>A. C. Crombie, Medieval and Early Modern Science, 2 vols. (Cambridge: Harvard University Press, 1963), 1:146.

<sup>11</sup>Franklin, Bibliothèque de la Faculté de Médecine, p. 10; Castiglione, History of Medicine, p. 350; Sarton, Introduction to the History of Science, 2:1085.

<sup>12</sup>Thorndike, History of Magic and Experimental Science, 2:789.

<sup>13</sup>Garrison, An Introduction to the History of Medicine, p. 153.

of Burgundio of Pisa (c. 1110-1193) over the earlier ones of Constantinus Africanus and continually urged all translations be made directly from the Greek into Latin.<sup>14</sup>

Thadeus also attended many sessions of animal dissections and human autopsies. The second practice was just coming into vogue at this time. Little evidence exists, however, to indicate that these proceedings had any influence upon his writings.

Thadeus' most important innovation in medicine was his compilation of clinical observations, entitled the Consilia medicinalia.<sup>15</sup> The Consilia was a new type of medical literature that played an important role in later years. His other writings include Commentaria in artem parvam Galeni; Expositiones in arduum aphorismorum Hippocratis volumen; In divinum prognosticorum Hippocratis librum; In praeclarum regiminis acutorum Hippocratis opus; Conservanda sanitas, a treatise on hygiene; and In subtilissimum Joannitii isagogarum libellum, a rather long commentary on the Isagoge Joannitii ad tegni Galeni of Johannitius. By the time of his death in 1303 all sections of Europe were consulting these works and Thadeus' methods were being taught in France by Henri de Mondeville and Pietro Torrigiano.<sup>16</sup>

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<sup>14</sup>Sarton, Introduction to the History of Science, 2:1086.

<sup>15</sup>Dean P. Lockwood, Uzo Benzi (Chicago: University of Chicago Press, 1951), p. 44.

<sup>16</sup>Sarton, Introduction to the History of Science, 2:1086-87.

A student of Thadeus of Florence, whose father Bruno was the master's brother-in-law and who made a reputation in his own right, was Dino del Garbo. Dino was born in the late thirteenth century and died in 1327. He received his degree in Bologna about 1300 and later taught at Bologna, Siena, Padua, and Florence. Dino's works were primarily commentaries, with one exception, an original treatise on weights and measures, derived from Egyptian, Hebrew, Muslim, Greek, and early Latin sources.<sup>17</sup> He was unjustly accused of plagiarizing Pietro Torrigiano, who was at the time working in Paris and Bologna on his commentaries on Galen's Ars Parva.<sup>18</sup>

A mention may be made here of Jean Passavant (de Passavanto). He was dean of the Faculty of Medicine around 1289. When Lanfranc arrived in Paris around 1292, Jean was his protector. He also was an author of a Formula, which remains today in the Bibliothèque Nationale.<sup>19</sup>

Flourishing a bit earlier than Thadeus was William of Saliceto, who was born at Saliceto near Piacenza in 1210. After completing his studies at Bologna, he began a career there as professor of surgery and pathology, which made him the institution's most outstanding graduate. Five years

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<sup>17</sup>Mary C. Welborn, "Studies in Medieval Metrology. The De ponderibus et mensuris of Dino di Garbo (1317)," Isis, 24 (1935):15-36.

<sup>18</sup>Sarton, Introduction to the History of Science, 3:837.

<sup>19</sup>Wickersheimer, Dictionnaire biographique, 2:460.

before his death in 1275, he moved to Verona to take the post of town doctor.<sup>20</sup>

Saliceto wrote two works, the Cyrurgia and the Summa conservationis et curationis. The Cyrurgia, which lodges today in the Paris library was possibly brought into the city by William's outstanding student, Lanfranc of Milan.<sup>21</sup> The Cyrurgia was completed in Verona in 1275 and was dedicated to Bruno del Garbo. The Cyrurgia treats diseases from head to foot, injuries and contusions, dislocations and fractures, and surgical anatomy. Some of his information is based on his own surgical observations and ancient writings. The final part of the Cyrurgia discusses the proper role of cauterization and drugs. Although quoting Galen, Muslim authorities, and some contemporaries, William here asserts his independence by advocating the use of the scalpel rather than burning devices in operations.

This author's other work, the Summa conservationis et curationis, is also divided into five parts. It discusses in order pathology and therapeutics, fevers, cosmetics and dermatology, toxicology, and pharmacy. The most often quoted sources are Hippocrates, Galen, Rasis, and Avicenna. Included

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<sup>20</sup>Richard A. Leonardo, History of Surgery (New York: Froben Press, 1943), p. 111.

<sup>21</sup>Alfred L. A. Franklin, Histoire de la bibliothèque de l'abbaye de Saint Victor à Paris (Paris: A. Aubrey, 1865), p. 81.

also are a discussion of the proper bedside manner, questions concerning diagnoses, gynecology, hygiene, and diets for patients of all ages.<sup>22</sup>

Following in William of Saliceto's footsteps was the most outstanding Italian physician of the late thirteenth and early fourteenth century, Lanfranc of Milan. He was a médecin chirurgie, that is, a lay physician who practiced surgery. He was born in Milan and studied at Bologna under William of Saliceto. After graduating from the institution, he practiced in Milan, from which the political situation determined him to leave. In 1295 he was in Lyons, where he continued his studies privately and wrote his Chirurgia parva, dedicating it to his son.<sup>23</sup>

After leaving Lyons, Lanfranc practiced in several provincial towns of his adopted country. In 1296 he settled in Paris. Here because he was married and not a cleric, the Faculty of Medicine refused to permit him to become a member of its body. Instead, he became an associate of the Fraternity of St. Côme's guild of surgeons. Thus began his brilliant career in this institution, which he climaxed by becoming the head of its faculty a few years later.

Until 1295 the instruction at St. Côme was mediocre.

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<sup>22</sup>Crombie, Medieval and Early Modern Science, 1:169.

<sup>23</sup>Wickersheimer, Dictionnaire biographique, 2:518; Douglas Guthrie, A History of Medicine (Philadelphia: J. P. Lippincott Co., 1946), p. 119.

Lanfranc did much toward raising the standards of instruction, thus enhancing its reputation. Many new students soon flocked to St. Côme and before long it became a flourishing center of instruction. Lanfranc insisted that surgeons have a working knowledge of medicine. This crucial innovation was no less important than his insistence upon the use of knowledge derived from practical observation, the maintenance of clinical records, and the examination of patients at bedside prior to operating. With him Galen's theories became part of the French school of surgeons.<sup>24</sup>

Of Lanfranc's works, the Chirurgia parva draws upon material from ancient sources and his master William of Saliceto. The book which gives the clearest impression of his later career is perhaps the Chirurgia magna (Practica que dicitur ars complete totius cyrurgiae), produced in 1296 and dedicated to Philip IV of France. It is divided into five books. Book I discusses surgery. In it Lanfranc emphasizes that both physician and surgeon should learn each other's arts in order to perform their tasks better. Thus he opposes the Muslim system of separation of these complementary disciplines.<sup>25</sup> Here he describes various kinds of wounds and

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<sup>24</sup>Garrison, Contributions to the History of Medicine, p. 95; Castiglione, History of Medicine, p. 337; Guthrie, History of Medicine, p. 119; Benjamin L. Gordon, The Romance of Medicine (Philadelphia: F. A. Davis Co., 1944), p. 453.

<sup>25</sup>Harvey Graham, The Story of Surgery (New York: Doubleday, Foran, & Co., Inc., 1939), p. 268.



ulcers, then for the treatment of ulcers applies the humoral theory.<sup>26</sup> Book II discusses the anatomy of, and specific injuries and wounds occurring in certain parts of the body. Book III tells of medical practices normally carried out by a doctor. Here occurs the first recognition of the differences between carcinoma and hypertrophy of the breast, an important milestone in the diagnosis and treatment of cancer. Book IV returns to the usual surgical discourse on fractures and luxations or dislocations. The fifth and final division is an antidotary.<sup>27</sup>

In general, the Chirurgia magna contains observations of the differences in symptoms between a fractured skull and concussion of the brain, thus revealing the author's desire to advance the diagnoses of such afflictions. It condemns trepanation in most cases and prescribes the practice only when skull fragments are depressed or the dura mater is irritated. It recommends that cut ends of nerves should be stitched together<sup>28</sup> and that trusses be used in most cases of hernia. Operations on hernias, cataracts and diseases of the

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<sup>26</sup>Eugene Bouchut, Histoire de la médecine et des doctrines médicales, 2 vols. (Paris: Baillière, 1873), 1:27.

<sup>27</sup>Gastiglione, History of Medicine, p. 337; Garrison, Contributions to the History of Medicine, p. 95; Gordon, Romance of Medicine, p. 453; Clarence W. Taber et al, Taber's Cyclopedic Medical Dictionary (Philadelphia, 1942), p. C-16.

<sup>28</sup>Crombie, Medieval and Early Modern Science, 1:232-33.

skin should be approached very cautiously. These observations mark Lanfranc as one of the outstanding surgeons of the Middle Ages and one of the first men successfully to oppose many of the scholastic arguments of the day.<sup>29</sup>

Lanfranc used the outstanding Muslim, classical, and medieval writers on medicine as his sources and his work was therefore a summary of much of the medical knowledge at this time. His productions became the principal texts at St. Côme and were popular throughout the rest of the middle ages. They were still being printed in Lyons as late as the sixteenth century. By the time of his death, either in 1316 or 1317, he had raised St. Côme to a place of first rank among the medical schools in Europe.<sup>30</sup>

The most famous contemporary of Lanfranc was one of his pupils, who also provided a link between Italian and French surgery, which resulted in France assuming the leadership in this art.<sup>31</sup> His name was Henri de Mondeville. Henri was born in Normandy and studied medicine and surgery at Montpellier, with Lanfranc and Jean Pitard in Paris, and with Theodoric in Italy. In 1301 he became personal and chief military surgeon to Philip IV and Louis X. He also accompanied Charles of Valois' armies in the field. On such occasions he applied

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<sup>29</sup>Theodor Puschmann, A History of Medical Education (New York: Hafner Publishing Co., 1966), p. 271.

<sup>30</sup>Ibid.; Crombie, Medieval and Early Modern Science, 1: 232-33; Guthrie, History of Medicine, p. 119.

<sup>31</sup>Sarton, Introduction to the History of Science, 3:865-66.

Theodoric's theories concerning the treatment of wounds.<sup>32</sup>

Henri lectured at Montpellier in 1304 and continued there as instructor for two years. During this time he struck up a friendship with Bernard Gordon, who suggested that Henri set down his knowledge within the covers of a book. In compliance with this advice he wrote his Chirurgia. He began his labors in 1306 upon his return to Paris. Six years later he had completed the first two treatises, which in 1314 were translated into French. Perhaps because of his ill health he never completed the third and fifth treatises and did not even commence the fourth. He died in either 1323 or 1325.<sup>33</sup>

The Chirurgia is a surgical encyclopedia, whose sources are mainly Avicenna and Maimonides. Most important, perhaps, is his advocacy of Theodoric's methods of wound treatment. He stated that if wounds are treated according to Theodoric's and his instructions, every simple wound will heal without any notable quantity of pus, and that many more surgeons know how to cause suppuration than how to heal a wound. He urged that needles be sharp and clean or they would cause infection. Also he advised that when the bandages are applied, they should not be disturbed for some days. Air, he recognized, was an agent that promoted pus. It was best to keep it from the wound as much and as long as possible.<sup>34</sup>

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<sup>32</sup>Wickersheimer, Dictionnaire biographique, 1:282.

<sup>33</sup>Graham, Story of Surgery, p. 102.

<sup>34</sup>Ibid., p. 102-103.

The author was also against the practice of starving wounded patients for the purpose of promoting their recovery. Instead, he prescribed they be given good food and wines plus "music of viols and a ten-stringed psaltry." Wine was also good for washing out the wound before dressing.<sup>35</sup>

Another unusual writer on medicine in the thirteenth century was Arnaldus de Villanova. His career illustrated how important doctors and teachers of medicine had become. Arnaldus was also an intimate of kings and popes.

He was born between 1234 and 1250 probably in Valencia.<sup>36</sup> He studied medicine at Naples. Then he began a life of extensive travel, operating in various capacities in Paris, Montpellier, Barcelona, Rome, and elsewhere before dying while voyaging at sea in 1311 from Naples to Genoa.<sup>37</sup>

He was physician to Peter III of Aragon at Barcelona in 1285. Despite being twice declared a heretic he served as physician to Popes Clement V and Boniface VIII. The first charges of heresy were brought against him when Arnoldus, acting as courier from James II of Aragon, was arrested by the inquisition in Paris in 1299. By 1301 he was safely out of France and in Genoa. Regardless of his troubles with the inquisitors, his influence remained extensive. A letter of

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<sup>35</sup>Garrison, Introduction to the History of Medicine, p. 146.

<sup>36</sup>Thorndike, History of Magic, 2:842.

<sup>37</sup>James J. Walsh, The Popes and Science (New York: Fordham University Press, 1911), p. 210.

December 6, 1311, tells of his death not long before.<sup>38</sup>

Arnaldus wrote extensively on several subjects but mostly on medicine. Forty-five treatises on medicine and eight commentaries on medical works of the ancient authors are ascribed to him. Many of these, however, are apocryphal.<sup>39</sup>

In all of the treatises of Arnaldus, Galen's influence was prominent. Arnaldus praises him and Rasis and also the teachers of Montpellier for promoting experimentation and individual thought based upon discovered facts rather than upon speculation. It is his belief that all true knowledge derives from the senses. At the same time, he states his awareness that experimentation is a difficult process and so suggests ways to conduct it properly. Finally, in the belief that brandy was the elixer vitae he prescribes for the first time its taking for the cure of many maladies and also advocates the open swathing of wounds and the application of ice and cold temperatures to aid recovery from certain diseases and wounds.<sup>40</sup>

One of Arnaldus' colleagues at Montpellier was Bernard Gordon, educated at Salerno. The date of his death is unknown.

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<sup>38</sup>Thorndike, History of Magic, 2:843-44, 845, 846, 847; Walsh, Popes and Science, p. 210; Lynn Thorndike, University Records and Life in the Middle Ages (New York: Columbia University Press, 1944), pp. 128-32.

<sup>39</sup>Sarton, Introduction to the History of Science, 2:894-900.

<sup>40</sup>Thorndike, History of Magic, 2:847 ff., 3:52 ff.; Crombie, Medieval and Early Modern Science, 1:139.

He was a physician of skill and had a wide knowledge of many disciplines, which he showed in his books.<sup>41</sup>

At Montpellier Bernard wrote a Theriacque. His most prominent work was a text book on practical medicine, the Lilium medicinae, which he wrote from 1303 to 1305. Although heavily laden with many scholastic arguments, the work is very clearly written and contains many noteworthy observations and discoveries. Like Lanfranc he recommends trusses to cure inguinal hernias and like Roger Bacon he discusses and describes the use of eyeglasses ("oculus berellinus").

The Lilium medicinae is especially important for the study of contagious and nutritional diseases. The author includes in its pages descriptions of scurvy and deadly diseases such as tracoma, bubonic plague, tuberculosis, and leprosy.<sup>42</sup>

Bernard Gordon believed in the methods of scholasticism. At the same time he was heavily influenced by the writings of his colleague at Montpellier, Arnaldus de Villanova, who was a vigorous opponent of scholasticism. Yet Gordon, seemingly defying all the rules of logic, wrote a spirited defense of Arnaldus' ideas on the subject.<sup>43</sup>

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<sup>41</sup>Sarton, Introduction to the History of Science, 3:873.

<sup>42</sup>Franklin, Bibliothèque de la Faculté de Médecine, pp. 10-11; Castiglione, History of Medicine, pp. 352-53; Franklin, Histoire de la bibliothèque de Saint Victor, p. 80.

<sup>43</sup>Maxime Laignel-Lavastine, Histoire générale de la médecine, de la pharmacie, de l'art dentaire, et de l'art

William of Brescia was born in 1250 at Canneto near Brescia. It was as professor of logic at Padua that he first became known. Later, he studied medicine under Thadeus of Florence at Bologna. Within a few years William was physician to Pope Boniface VIII at Rome and Pope Clement V, accompanying the latter when he moved to establish the papal residence at Avignon. Shortly after Clement's death in 1314 William left for Paris, where he died around 1326.<sup>44</sup>

His main contribution is the Aggregator Brixienensis. This is a collection of every medical opinion on every known disease. The uncritical attitude of the Aggregator is a good indication of the influence Thadeus exerted upon his pupil. In time it became a model for other works of this kind.<sup>45</sup>

Some of William of Brescia's other works are of greater medical importance than the Aggregatoris. A list of these includes his studies of kidney and bladder stones, fevers, surgery, etc. He also wrote a number of case histories or concilia. They reveal the author as a good observer but a poor innovator.<sup>46</sup>

Sometime during the early fourteenth century there

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vétérinaire, 3 vols. (Paris: Bertrand Guegau, 1936-1950), 2:70.

<sup>44</sup>Wickersheimer, Dictionnaire biographique, 1:230.

<sup>45</sup>Sarton, Introduction to the History of Science, 2: 1087-88.

<sup>46</sup>Ibid., p. 1088.

appeared another important work for use in the medical library. The author was Pietro Torrigiano who was born at Florence between 1270 and 1280 and died in 1350. He went to Bologna, where he became a distinguished pupil of Thadeus of Florence. From 1306 to 1311 he studied and taught at Paris. Then he returned to Bologna, where in his last years he became a Carthusian monk.<sup>47</sup>

The work which earned him distinction is a commentary on Galen's Ars parva, entitled Plusquam commentum. Its value lies in the author's placing--for the first time in the medieval period--the seat of sensation in the brain instead of the heart, giving an accurate diagram of the central nervous system, and showing recognition that the senses and movements are controlled by the same, not two separate systems.<sup>48</sup>

Other observations in the Plusquam commentum are noteworthy. It states the author's belief that fevers are not caused by "putrid humors" and that medicine attracts the humors by a particular force to effect cures of illnesses. He recommends the study of mathematics as a prerequisite for the medical student and the dissection of cadavers as a necessary tool for the learning of anatomy. Torrigiano speculated to a greater degree than his master Thadeus. His main sources

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<sup>47</sup>Ibid., 3:839; Wickersheimer, Dictionnaire biographique, 2:770.

<sup>48</sup>Sarton, Introduction to the History of Science, 2:839-40.



were Boetius, the Salernitan masters, and the most favored Greek and Muslim writers.<sup>49</sup>

Last but certainly not the least of those deserving of a place among the contributors to the medieval medical bibliographies of Paris was Petrus de Abano, who bore the title of "Conciliator." By definition this was a person whose job it was to reconcile conflicts between the Greek and Arabian schools of medical thought. Petrus was born in a small village near Padua. His first trip outside Italy was to Constantinople, where he mastered the Greek language. In 1293 he was in Paris, where he remained at least ten years. Then he returned to Padua, where he remained for the rest of his life as a teacher in the university. By the time of his death, about 1316, he had achieved a wide reputation as an astrologer, philosopher, and physician.<sup>50</sup>

Petrus de Abano wrote four treatises, the Conciliator differentiarum philosophorum et praecipue medicorum, the Tractatus de venenis earumque remediis, the Liber compilationis physiognomiae, and the Antidotarium sive grabadin. The last is a supplement to the Grabadin by Mesue the Younger.

The Conciliator was begun in Paris before 1303. Petrus attempted to reconcile the disputes raging among the medieval,

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<sup>49</sup>Ibid., 3:840.

<sup>50</sup>Wickersheimer, Dictionnaire biographique, 2:608-609; Thorndike, History of Magic, 2:875-947.

Greek, and Muslim schools. At first, he relied upon the scholastic method of posing over two hundred questions which Peter and his associates had investigated for a decade. Then using the findings of past authorities on both sides to guide him he furnished what to him is the logical answer, a reconciliation of all views. Among the subjects reviewed are the natural temperature of air, the coldness or hotness of vapor, the true cause of pain (disease and accident), the composition of heat and air (similarities and differences between them), and the benefits of large and small lighting fixtures.

His speculations include his ascribing benefits derived from an otherwise dangerous and deadly headache, his attributing the "critical days"<sup>51</sup> to the phases of the moon, his belief that the study of live animals may best be performed during the second quarter of the lunar month, and his deduction that iron is the best metal for surgical tools, a conclusion he based on the old pagan relationship of iron and Mars, god of war and surgeons. Finally, he severely condemns many of the prevailing medical theories. It was this work that earned for

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<sup>51</sup>"Critical days" were those in the lunar month governed by planets, which controlled the actions of the "humors." The doctor calculated in his treatment of his patient the forces of these planets with the six-hour period of each day during which a particular "humor" governed and used these calculations to determine what type of medicine or surgery he should prescribe. The doctrine was part of the humoral theory of Hippocrates and was supported by physicians until the nineteenth century. See Benjamin L. Gordon, Medicine Throughout Antiquity (Philadelphia: F. A. Davis Company, 1949), pp. 508-12. See Walter C. Curry, Chaucer and the Sciences (New York: Barnes and Noble, Inc., 1960), pp. 12-19.

him the permanent title of "Petrus Conciliator."

The second of Peter's works, Tractatus de venenis, is divided into six chapters devoted to discussion of all known poisons, their effects and antidotes. The third, Liber compilationis, treats on the astrological aspects of physiognomy. With their listing this search through the Parisian libraries of the late thirteenth and early fourteenth centuries may fittingly come to a close.<sup>52</sup>

From 1280 to 1320, Italian authors, either living in Italy or exiled in Paris, dominated the medical and surgical schools. Writers like Aldobrandino of Siena and the surgical giant, Lanfranc of Milan brought the latest discoveries to the attention of the Parisian students and masters. One of these, Henri de Mondeville, continued the fight to apply the dry method of healing to surgery. Still another, Pietro Torrigiano, flouted authority by asserting that the brain, not the heart, was the center of the nervous system. At the same time others, such as Peter of Abano, tried to reconcile the diverse medical opinions of the various ancient authorities.

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<sup>52</sup>Sarton, Introduction to the History of Science, 3: 439, 442-43: Thorndike, History of Magic, 2:875, 885-88.

## CHAPTER VI

### CONCLUSION

Some modern scholars conclude that the Faculty of Medicine of the University of Paris played a minimal role in the study of medicine during the Middle Ages. It had, according to these observers, few native authors who contributed important manuscripts to the libraries of their own city and other institutions in Europe.<sup>1</sup>

The present study of the medical school of the University of Paris indicates that the above observations need some modification. The many manuscripts which were possibly there or which can be directly traced to the group of libraries in the royal domain reveal the extent of the diverse sources relied on by masters in their lectures and the high quality of the book depositories during this period. These manuscripts probably arrived directly from the Italian medical centers of Salerno and Bologna. Some of them were probably copies of books located in the episcopal library at Beauvais, which around 1250 was the largest library in northeastern France. A few others were brought northward from Montpellier, the medical center in southern France.

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<sup>1</sup>Nathan Schachner, The Mediaeval Universities (New York: A. S. Barnes & Company, Inc., 1962), p. 82; Hastings Rashdall, The Universities of Europe in the Middle Ages, 2nd ed. rev., ed. F. M. Powicke and A. B. Emden, 3 vols. (Oxford: Oxford University Press, 1958), 1:435; Garrison, Introduction to the History of Medicine, p. 141.

A majority of the authors who contributed to the libraries of Paris were learned doctors who were unafraid to become acquainted with the latest medical ideas coming from Italy. The acceptance of Lanfranc into Paris and the assistance furnished him by the dean of the medical faculty, Jean Passavant, indicates how well the doctors, or at least some of them, recognized to a limited extent the validity of progressive innovations in medicine and surgery.

The appearance in books on medical history of unfavorable comments on the worth of the Faculty of Medicine seems to have been based at least partly on a misunderstanding of the functions of the various medical schools that operated during the Middle Ages. Actually each medical school performed a distinctive function in the field of medical studies. Salerno, then Bologna were the innovators. New ideas were derived from observations of dissections of animals and humans and supplemented the knowledge bequeathed by the ancient authorities. Montpellier also assimilated the contributions of the Muslim doctors with the sources of a similar nature from classical Greece and Rome. Paris tried to reconcile both of the above syntheses, in many areas opposing each other, through the application of scholastic dialogues and logical argument.

These developments took place within a space of two hundred years. Before 1100, those medical schools which existed in Paris relied on the few works which had been translated into Latin or were originally composed in the scriptoria of

the monasteries from the fifth to the eighth centuries. After 1100 and until 1320 the Faculty of Medicine and the Collège de St. Côme mushroomed into prominence. This almost precipitous rise can be traced to the good fortune of having the most prominent Italian masters arrive in the vicinity of the two institutions. They came to France as a result of political difficulties, church assignment, or other causes.

At the same time Louis IX must be given credit for providing a copying center for the purpose of adding new manuscripts to the collections of the Paris libraries. His royal library, the St. Chapel du Palais, was under the direction of the royal librarian, Vincent of Beauvais. Vincent's knowledge of the Beauvais episcopal library most likely enabled him to provide his staff of copyists with important additions to the already large stocks of manuscripts in his charge. Upon the death of Louis IX the library was divided among three monastic libraries in Paris. Around the same time the Hohenstaufen Emperor Frederick II, and possibly his son Manfred, contributed many works of Aristotle to the University of Paris. Without these manuscripts, which taught the bases of the scholastic method along with medical information, the teachers in Paris would have been without a good foundation for imparting the knowledge of their profession.

Finally, there were the students who learned from the many and diverse works in the libraries and who also contributed important writings in the field of medicine and surgery. They

included many of a poor background who received scholarships from the clergy who formed Faculty of Medicine and others who came from families of physicians. Among these were Albertus Magnus, John de Sancto Amando, Henri de Mondeville, the last French surgeon to defend on paper the novel ideas of Theodoric, and Petrus Hispanus, who became Pope John XXI.

The fact that the medical school of the University of Paris did not achieve a position of major importance among the medical institutions of medieval Europe was not because of a paucity of manuscript materials. Indeed, among the subject matter of the manuscripts, almost every field of medieval medicine was represented there. The relatively low ranking of the medical school of Paris was therefore due to other reasons than the lack of a sufficient number of manuscripts.

## APPENDIX

### BIBLIOGRAPHY OF WORKS FOUND IN LIBRARIES OF PARIS FROM 1100 TO 1320

- Arrangement: A. Name of author  
B. His work or works  
C. Evidence by direct identification of the  
work's presence in Paris

## PART I

### Section I. Ancient Authors

1. A. Hippocrates (died about 370 B. C.)  
(Translated by Constantinus Africanus)  
B. Aphorisms  
De regimine acutorum morborum prognostics  
C. The Aphorisms and De regimine were in the library  
of the University of Paris as early as 1190.<sup>1</sup>
2. A. Dioscorides (fl. 60 A. D.)  
B. De materia medica. In five books; the first systematic  
compilation of Greek pharmaceutical development.<sup>2</sup>  
C. In the library of the University of Paris in 1190.<sup>3</sup>

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<sup>1</sup>Stephen d'Irsay, "Teachers and Textbooks of Medicine in the Medieval University of Paris," Annals of Medical History, 8(1926):234.

<sup>2</sup>George Sarton, Introduction to the History of Science, 3 vols. (Baltimore: Carnegie Institution of Washington, 1931), 1:258.

<sup>3</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.



3. A. Philaretus
  - B. Libri pulsuum. One of the most influential treatises on pulse in the Middle Ages.
  - C. In the library of the University of Paris in 1190 and 1274.<sup>4</sup>
4. A. Galen (c. 131-200 A. D.)
  - (Translated by Constantinus Africanus)
  - B. Therapeutica sive megatechni  
Ars parva (or Tegni, Microtechne). The smallest and most general as well as most popular work of this author, which summarizes his theories.<sup>5</sup>
  - C. Both in the library of the University of Paris, the latter in 1190 and the former in 1274.<sup>6</sup>
5. A. Theophilus (fl. first half of seventh century A. D.)
  - (translated by Constantinus Africanus).
  - B. De corp oris humani fabrica. A work on the human constitution it combines theology and Galenic physiology.<sup>7</sup>

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<sup>4</sup>Sarton, Introduction to the History of Science, 1:260; d'Irsay, "Teachers and Textbooks of Medicine," pp. 234, 235.

<sup>5</sup>George Sarton, Galen of Pergamon (Lawrence: University of Kansas Press, 1954), pp. 66-67, 89; Arturo Castiglione, A History of Medicine, ed. and trans. Edward B. Krumbhaer (New York: Knopf and Company, 1941), pp. 326, 339.

<sup>6</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

<sup>7</sup>Sarton, Introduction to the History of Science, 1:478, 2:436.

C. In the library of the University of Paris in 1190 and 1274.<sup>8</sup>

6. A. Alexander of Tralles (d. 605 A. D.)  
(translated by Constantinus Africanus).

B. Practica

De febribus

De cura nefreticorum

De rheuma neutris<sup>9</sup>

C. In the library of the University of Paris in 1190.<sup>10</sup>

## Section II. Muslim Writers on Medicine

1. A. Johannitius (d. 877 A. D.)

(Translated by Constantinus Africanus).

He was an outstanding translator of Galen, Hippocrates, and other Greek masters from Greek into Arabic.

B. Isogoge Johannitii ad tegni galeni. A Galenic classification, extended and elaborated upon; but in the fourteenth century it was an important textbook in medieval universities.<sup>11</sup>

C. In the library of the University of Paris in 1190.<sup>12</sup>

<sup>8</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

<sup>9</sup>Lynn Thorndike and Pearl Kibre, Catalogue of Incipits of Mediaeval Scientific Writings in Latin (Cambridge: Harvard University Press, 1937), pp. 259, 361, 1039, 1142.

<sup>10</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

<sup>11</sup>Sarton, Introduction to the History of Science, 1:611.

<sup>12</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

2. A. Isaac Judaeus (d. 932 A. D.)  
(Translated by Constantinus Africanus).  
B. Diaetae universales et particulares. A treatise on easily prepared drugs and foods.  
Liber februm. Deals with fevers.  
Liber urinarum. The most detailed medieval work on the subject.<sup>13</sup>  
C. These books were in the library of the University of Paris in 1190 and 1274.<sup>14</sup>
3. A. Haly Abbas (d. 994 A. D.)  
(Translated by Constantinus Africanus and John Afflacijs).  
B. Liber regius (Regalis dispositio). The theory and practice of medicine, diet, materia medica. The most important part treats on capillaries. It was the first work to reveal the actual processes of birth.<sup>15</sup>  
C. In the library of the University of Paris in 1190 and 1274.<sup>16</sup>
4. A. Ibn al-Djazzar (fl. 929-1009)

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<sup>13</sup>Sarton, Introduction to the History of Science, 1:640; Castiglione, History of Medicine, p. 339.

<sup>14</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

<sup>15</sup>Sarton, Introduction to the History of Science, 1:677, 769.

<sup>16</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

(Translated by Constantinus Africanus).

B. Viaticum peregrinantis<sup>17</sup>

C. In the library of the University of Paris in 1190 and 1274.<sup>18</sup>

### Section III. Medieval Writers on Medicine

1. A. Constantinus Africanus (d. 1087). The first great translator of medical works from the Arabic into Latin.

B. The works of Constantinus.

C. All in the library of the University of Paris in 1190 and 1274.<sup>19</sup>

2. A. John Afflacijs (c. 1040)

B. Translated the surgical section of Haly Abbas' Liber regius.<sup>20</sup>

C. In the library of the University of Paris in 1190 and 1274.<sup>21</sup>

3. A. Matthaeus Platearius (d. 1161)

B. De simplici medicina (Circa instans). Two editions; the first contains 432, the second 273 chapters, each

<sup>17</sup>Sarton, Introduction to the History of Science, 1:682.

<sup>18</sup>d'Irsay, "Teachers and Textbooks of Medicine," pp. 234-35.

<sup>19</sup>Alfred L. A. Franklin, Histoire de la bibliothèque de l'abbaye de Saint Victor à Paris (Paris: A. Aubrey, 1865), p. 80.

<sup>20</sup>Sarton, Introduction to the History of Science, 1:769.

<sup>21</sup>d'Irsay, "Teachers and Textbooks of Medicine," pp. 234-35.

chapter treats of one or more drugs, arranged according to Latin alphabetical order; French, Italian, and Greek names are also given; information about drugs, including descriptions, actions, methods of application, signs of purity, falsifications, and various distinctions are included. In the smaller text 229 chapters discuss medical plants, going further than any other writer on herbals on the subject. This work superceded or eclipsed Apuleius' herbals and became the basic model for Western pharmacopaeias.<sup>22</sup>

C. In the library of St. Genevieve in the thirteenth century.<sup>23</sup>

4. A. Odo of Meung--probable author (fl. toward the end of the eleventh century)

B. Macer floridus de virtutibus (or viribus herbarum.)

C. In the library of the University of Paris in 1190.<sup>24</sup>

5. A. Aegidius de Corbeil (d. 1220-1224)

B. De urinis (De urinarum)

De pulsibus

De laudibus et virtutibus compositorum medicaminum

<sup>22</sup>Sarton, Introduction to the History of Science, 2:241.

<sup>23</sup>Paul Dorveaux, Le livre des simples médecines. Traduction française du Liber de simplici medicina dictus Circa instans de Platearius tirée d'un manuscrit du XIIIe siècle (Ms. 3113 de la Bibliothèque Ste Geneviève de Paris) et publiée pour la première fois. Paris: Société française d'histoire de la médecine.

<sup>24</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 234.

Viaticus (De signis et sinthomatibus egritudinum)

- C. In the library of the University of Paris in 1274.<sup>25</sup>
6. A. Henri de Mondeville (c. 1260-c. 1320)
- B. Cyrurgia (parts I and II)
- C. Bibliothèque Nationale<sup>26</sup>

## PART II

AUTHORS WHOSE WORKS WERE PROBABLY IN  
THE PARIS LIBRARIES.

- Arrangement: A. Name of the author
- B. His work or works
- C. Presence of works in catalogs of  
libraries

Section I. Ancient Authors

1. A. Aristotle (384-322 B. C.)
- B. De animalium<sup>27</sup>
- Secretum secretorum (Epistolae aristotilis ad alexandrum)<sup>28</sup>--apocryphal

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<sup>25</sup>Ibid., p. 235.

<sup>26</sup>Leopold Delisle, Inventaire des Manuscrits Français de la Bibliothèque Nationale, 2 vols. (Paris: H. Champion, 1876, 1878), 2:224.

<sup>27</sup>George W. Corner, Anatomical Texts of the Earlier Middle Ages (Washington: Carnegie Institution, January, 1927), p. 40.

<sup>28</sup>Delisle, Inventaire des manuscrits Français de la Bibliothèque Nationale, 2:173.

## C. Bibliothèque Nationale

Section II. Muslim Authors

1. A. Rasis (d. c. 923 A. D.)
  - B. De iuncturarum egritudinibus<sup>29</sup>  
Experimenta seu ipsius seu galeni  
Practica puerorum  
Divisiones  
Antidotarium<sup>30</sup>
  - C. Bibliothèque Nationale and Arsenal
2. A. Isaac Judaeus (d. 932 A. D.)
  - B. Secreta galieni translata ab ysaac in omnibus egritudinibus
  - C. Bibliothèque Nationale<sup>31</sup>
4. A. Avicenna (d. 1037 A. D.)
  - B. Liber de medicinis cordialibus  
De animalibus<sup>32</sup>  
Flores  
Antidotarii<sup>33</sup>

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<sup>29</sup>Ulysse Robert, Inventaire Sommaire des Manuscrits des Bibliothèque de France (Paris: Honore Champion Libraire, 1896), p. 96; Lynn Thorndike, History of Magic and Experimental Science, 8 vols. (New York: Columbia University Press, 1923-1958), 2:775.

<sup>30</sup>Thorndike, History of Magic, 2:775.

<sup>31</sup>Ibid.

<sup>32</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96.

<sup>33</sup>Thorndike, History of Magic, 2:775.

C. Arsenal and Bibliothèque Nationale<sup>34</sup>Section III. Medieval Authors

1. A. Petrocellus (c. 1035 A. D.)
  - B. Practica
  - C. St. Germain<sup>35</sup>
2. A. Nicolaus Salernus--supposed author (fl. between 1100 and 1150)
  - B. Antidotarium Nicolai
  - C. Arsenal and Bibliothèque Nationale<sup>36</sup>
3. A. St. Hildegard of Bingen
  - B. Liber divinorum operum simplicis hominus
  - C. Arsenal<sup>37</sup>
4. A. Ricardus Salernus (or) Nicolaus II (fl. c. 1150-1200 A. D.)<sup>38</sup>
  - B. Explicit anatomia magistri Richardi
  - C. Arsenal and Bibliothèque Nationale<sup>39</sup>

<sup>34</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96; Thorndike, History of Magic, 2:775.

<sup>35</sup>Sarton, Introduction to the History of Science, 1:726.

<sup>36</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96; Delisle, Inventaire des Manuscrits Français de la Bibliothèque Nationale, 2:225.

<sup>37</sup>Alfred L. A. Franklin, Les anciennes bibliothèques de Paris, 3 vols. (Paris: Imprimerie Imperiale, 1867-1873), 2:139.

<sup>38</sup>Sarton, Introduction to the History of Science, 2:436.

<sup>39</sup>Corner, Anatomical Texts of the Earlier Middle Ages, p. 31; P. Pansier, "Experimenta Magistri Gilliberti," Janus 4(1903):20.



5. A. Walter Agilon (fl. first or second quarter of  
thirteenth century)  
B. Summa  
C. Bibliothèque Nationale<sup>40</sup>
6. A. Bartholomaeus Anglicus (d. c. 1250)  
B. De proprietatibus rerum  
C. Bibliothèque Nationale<sup>41</sup>
7. A. Roger Baron (thirteenth century)  
B. Tractatus qui dicitur minor rogerina  
C. Bibliothèque Nationale<sup>42</sup>
8. A. John de Sancto Amando (d. c. 1300)  
B. Duplices concordantiae. Main part of  
Revocativum memorial.  
C. Arsenal<sup>43</sup>
9. A. Gilbert of England (fl. around 1250)  
B. Experimenta magistri Gilberti cancellarii  
montispezzulani--apocryphal  
C. Bibliothèque Nationale<sup>44</sup>
10. A. Petrus Hispanus (1210-1277)  
B. De morbis oculorum (or Liber breviarii)

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<sup>40</sup>Delisle, Inventaire des Manuscrits Français de la Bibliothèque Nationale, 2:222.

<sup>41</sup>Thorndike, History of Magic, 2:402-28.

<sup>42</sup>Pansier, "Experimenta Magistri Gilliberti," 4:20.

<sup>43</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96.

<sup>44</sup>Pansier, "Experimenta Magistri Gilliberti," 4:21;  
Thorndike, History of Magic, 2:775.

- C. Arsenal<sup>45</sup>
11. A. Aldobrandinus of Siena (d. 1287)  
 B. Regime du corps  
 C. Bibliothèque Nationale<sup>46</sup>
12. A. J. Lombardus (unknown)  
 B. Experimenta  
 C. Arsenal<sup>47</sup>
13. A. William of Saliceto (c. 1210-c. 1280)  
 B. Cyrurgia  
 C. Bibliothèque Nationale<sup>48</sup>
14. A. Lanfranc, of Milan (d. before 1306)  
 B. Chirurgia magna  
 C. Bibliothèque Nationale<sup>49</sup>
15. A. Bernard Gordon (d. c. 1320)  
 B. Lilium medicinae (small chapter of "De passionibus.")  
 C. Bibliothèque Nationale<sup>50</sup>

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<sup>45</sup>Robert, Inventaire Sommaire des Manuscrits, pp. 96, 97.

<sup>46</sup>Delisle, Inventaire des Manuscrits Français de la Bibliothèque Nationale, 2:220, 222.

<sup>47</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96.

<sup>48</sup>Franklin, Histoire de la bibliothèque de Saint Victor, p. 81.

<sup>49</sup>Delisle, Inventaire des Manuscrits Français de la Bibliothèque Nationale, 2:224.

<sup>50</sup>Ibid., p. 222.

## PART III

AUTHORS WHOSE WORKS WERE POSSIBLY IN THE  
PARIS LIBRARIES BUT WHOSE PRESENCE CAN  
NOT BE DEFINITELY PROVED FROM 1100 TO 1320

- Arrangement: A. Name of author  
B. His work or works  
C. Justification

Section I. Ancient Authors

1. A. Aristotle (384-322 B. C.)  
B. Works of Aristotle  
C. Translations sent to Paris<sup>51</sup>
2. A. Poleman  
B. Physiognomonica. Apparently the earliest treatment on the subject.<sup>52</sup>  
C. Utilized by Petrus de Abano in Liber compilationis physiognomiae<sup>53</sup>

Section II. Muslim Authors

1. A. Rasis (d. about 923)  
B. Liber almansoris (translated by Gerard of Cremona).  
The most important book in the middle ages on gynecology, obstetrics, ophthalmology, and other diseases.  
C. Arsenal<sup>54</sup>

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<sup>51</sup>Sarton, Introduction to the History of Science, 2:575; Thorndike, History of Magic, 2:314.

<sup>52</sup>Sarton, Introduction to the History of Science, 1:271.

<sup>53</sup>Ibid., 3:442.

<sup>54</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96.

2. A. Albucasis (d. 1013)
  - B. Antidotarium. Contains a section on surgery.<sup>55</sup>
  - C. Utilized by Lanfranc of Milan in Chirurgia magna.<sup>56</sup>
3. A. Avicenna (d. 1037)
  - B. Canon. An encyclopedia that reclassifies Galen's system of medicine; the standard reference work for four centuries.<sup>57</sup>
  - C. Arsenal<sup>58</sup> and utilized by Richard of England, John de Sancto Amando, Lanfranc of Milan, Henri de Mondeville, Peter Tortigiano.<sup>59</sup>
4. A. Serapion Junior (fl. first half of twelfth century)
  - B. Liber de simplici medicina (De medicamentis simplicibus, De temperamentis simplicium). Treatise on simple drugs.<sup>60</sup>
  - C. Utilized by Lanfranc of Milan in Chirurgia Magna.<sup>61</sup>
5. A. Averroes (d. 1198)

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<sup>55</sup>Sarton, Introduction to the History of Science, 1:681; Alfred L. A. Franklin, Recherches sur la bibliothèque de la Faculté de Médecine de Paris (Paris: A. Aubry, 1864), p. 11.

<sup>56</sup>Sarton, Introduction to the History of Science, 2:1080.

<sup>57</sup>Franklin, Bibliothèque de la Faculté de Médecine, p.10; Sarton, Introduction to the History of Science, 1:710.

<sup>58</sup>Robert, Inventaire Sommaire des Manuscrits, p. 96.

<sup>59</sup>Sarton, Introduction to the History of Science, 2:657, 1080, 1090, 3:840, 869; Louis Karl, "Theodoric de l'Ordre des Prêcheurs et sa chirurgie," Bulletin de la Société Française, 23(1929):169.

<sup>60</sup>Sarton, Introduction to the History of Science, 2:229.

<sup>61</sup>Ibid., p. 1080.

- B. Works of Averroes
- C. Translations sent to Paris.<sup>62</sup>
- 6. A. Maimonides (d. 1204)
- B. Moses Aphorisms. A compilation of medical maxims including a chapter on surgery.
- C. Utilized by Henri de Mondeville in Chirurgia<sup>63</sup>
- 7. A. Mesue III (fl. first half of thirteenth century)
- B. Cyrurgia joannis mesue. Five part treatise on medicine and surgery.<sup>64</sup> Form similar in subject arrangement to Lanfranc of Milan.
- C. Utilized by Lanfranc of Milan in Chirurgia magna.<sup>65</sup>

### Section III. Medieval Authors

- 1. A. Gariopontus (d. c. 1050)
- B. Passionarius A Salernitan encyclopedia; with extracts from late Greek, Roman, and Byzantine authors.<sup>66</sup>
- C. Arsenal<sup>67</sup>
- 2. A. Joannes Platearius (fl. c. 1090)
- B. Practica brevis. Medical compendium.<sup>68</sup>

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<sup>62</sup>Ibid., p. 575; Thorndike, History of Magic, 2:314.

<sup>63</sup>Sarton, Introduction to the History of Science, 2:371.

<sup>64</sup>Ibid., p. 662.

<sup>65</sup>Ibid., p. 1080.

<sup>66</sup>Ibid., 1:726.

<sup>67</sup>Robert, Inventaire Sommaire des Manuscrits, p. 97.

<sup>68</sup>Sarton, Introduction to the History of Science, 1:770.

- C. Arsenal<sup>69</sup>
3. A. Copho (fl. c. 1100)  
 B. Anatomia porci.  
 C. Utilized by Lanfranc of Milan in Chirurgia magna.  
 Bibliothèque Nationale<sup>70</sup>
4. A. John de Sancto Paulo (late twelfth century)  
 B. De simplicium medicinerum virtutibus  
Practica (Breviarium)  
Flores diaetarum  
 C. Author lived in Paris.<sup>71</sup>
5. A. Magister Maurus (d. 1214)  
 B. Anatomia Mauri  
Regulae urinarum  
De flebotomia  
 C. Utilized by Aegidius de Corbeil in De urinis and  
 Lanfranc of Milan in Chirurgia magna.<sup>72</sup>
6. A. Roger of Salerno (c. 1170)  
 B. Practica chirurgiae (Post Mundi fabrica)  
 C. Utilized by Lanfranc of Milan in Chirurgia magna.<sup>73</sup>

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<sup>69</sup>Robert, Inventaire Sommaire des Manuscrits, p. 97.

<sup>70</sup>Sarton, Introduction to the History of Science, 2:1080;  
 Corner, Anatomical Texts of the Earlier Middle Ages, p. 44.

<sup>71</sup>d'Irsay, "Teachers and Textbooks of Medicine," p. 362-  
 63.

<sup>72</sup>Arturo Castiglione, A History of Medicine, ed. and trans.  
 Edward B. Krumbhaar (New York: Knopf and Company, 1941), p.  
 317; Sarton, Introduction to the History of Science, 2:1080.

<sup>73</sup>Sarton, Introduction to the History of Science, 2:1080.

7. A. John de Sancto Egidio (c. 1220)
  - B. Treatise on anatomy
  - C. Resident in Paris.<sup>74</sup>
8. A. Roland of Parma (first half of thirteenth century)
  - B. Chirurgia rolandina
  - C. Utilized by Lanfranc of Milan in Chirurgia magna<sup>75</sup>
9. A. Richard of England (identity unknown)<sup>76</sup>
  - B. Micrologus.
  - C. Resident in Paris and utilized by Thomas of Cantimpre.<sup>77</sup>
10. A. Arnoldus Saxo (c. 1225)
  - B. De finibus rerum
  - C. Utilized by Thomas of Cantimpre in Liber de natura.<sup>78</sup>
11. A. Thomas of Cantimpre (c. 1205)
  - B. Liber de natura rerum secundum diversos philosophos.
  - C. Resident of Paris during compilation of book.<sup>79</sup>

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<sup>74</sup>Maxime Laignel-Lavastine, Histoire générale de la médecine de la pharmacie, de l'art dentaire, et de l'art vétérinaire, 3 vols. (Paris: Bertrand Guegau, 1936-1950), 2:80; Sarton, Introduction to the History of Science, 2:575.

<sup>75</sup>Sarton, Introduction to the History of Science, 2:1080.

<sup>76</sup>Charles H. Talbot and Eugene A. Hammond, The Medical Practitioners in Medieval England (London: Wellcome Historical Medical Library, 1965), pp. 270-71.

<sup>77</sup>Castiglione, History of Medicine, p. 353; Sarton, Introduction to the History of Science, 2:657; Corner, Anatomical Texts of the Earlier Middle Ages, p. 39.

<sup>78</sup>Sarton, Introduction to the History of Science, 2:592.

<sup>79</sup>Ibid.

12. A. Vincent of Beauvais (b. c. 1190)  
 B. Speculum maius  
 C. Chief copyist and librarian at St. Chapelle du Palais
13. A. Albertus Magnus (1193-1280)  
 B. De animalibus  
 C. Utilized by Vincent of Beauvais.
14. A. Roger Bacon (1214-1294)  
 B. Epistola de accidentibus senectutis  
 C. Resident of Paris.<sup>80</sup>
15. A. John de Sancto Amando (d. beginning of the fourteenth century)  
 B. Revocativum memoriae  
Exposito sive additio super antidotarium Nicolai  
 C. Resident of Paris.<sup>81</sup>
16. A. Gilbert of England (fl. around 1250)  
 B. Liber morborum (probably part of the Compendium medicinae)  
 C. Arsenal<sup>82</sup>
17. A. Theodoric (1205-1298)  
 B. Cyrurgia

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<sup>80</sup>Ernest Wickersheimer, Dictionnaire biographique des medecins en France au moyen age, 2 vols. (Paris: Librairie E. Droz, 1936), 2:720.

<sup>81</sup>Sarton, Introduction to the History of Science, 2:1089.

<sup>82</sup>Robert, Inventaire Sommaire des Manuscrits, p. 97.



- C. Utilized by Henri de Mondeville in Chirurgia and Lanfranc of Milan in Chirurgia magna<sup>83</sup>
18. A. Petrus Hispanus (1210-1277)
- B. Thesaurus pauperum<sup>84</sup>  
Commentariai<sup>85</sup>
- C. St. Geneviève and Bibliothèque Nationale
19. A. Nicolaus Myrepsus (d. c. 1280)
- B. Antidotarium
- C. This work located in Paris by, fourteenth century.<sup>86</sup>
20. A. Lanfrancus of Milan (d. c. 1306)
- B. Chirurgia parva
- C. Resident of Paris<sup>87</sup>
21. A. Arnaldus de Villanova (1235-1312)
- B. Medicationis parabolae secundum instinctum veritatis aeternae
- C. Visited Paris many times. Book dedicated to Philip the Fair.<sup>88</sup>
22. A. William of Brescia (1250-c. 1326)

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<sup>83</sup>Sarton, Introduction to the History of Science, 2:1080, 3:866, 870, 871.

<sup>84</sup>Thorndike, History of Magic, 2:515.

<sup>85</sup>Ibid., p. 501.

<sup>86</sup>Franklin, Bibliothèque de la Faculté de Médecine, p. 10.

<sup>87</sup>Wickersheimer, Dictionnaire biographique, 2:518.

<sup>88</sup>Fielding H. Garrison, An Introduction to the History of Medicine (Philadelphia: W. B. Saunders Company, 1922), p. 154.

- B. Aggregatoris dietorum illustrium  
medicorum ad unamquamque egritudinem  
ad unamquamque egritudinem a capite  
ad pedes practica  
 Several concilia
- C. Resident of Paris<sup>89</sup>
23. A. Peter Torrigiano (b. c. 1275)  
 B. Plusquam commentum  
 C. Resident of Paris<sup>90</sup>
24. A. Petrus de Abano (c. 1250-c. 1316)  
 B. Liber compilationis physiognomiae  
 C. Bibliothèque Nationale. Resident of Paris.<sup>91</sup>

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<sup>89</sup>Wickersheimer, Dictionnaire biographique, 1:230.

<sup>90</sup>Sarton, Introduction to the History of Science, 3:839.

<sup>91</sup>Wickersheimer, Dictionnaire biographique, 2:608-609;  
 Thorndike, History of Magic, 2:877.

BIBLIOGRAPHY  
SECONDARY WORKS

- Ackerknecht, Erwin H. A Short History of Medicine. New York: The Ronald Press Co., 1955.
- Allbutt, Thomas C. The Historical Relations of Medicine and Surgery to the End of the Sixteenth Century. New York: The Macmillan Co., 1905.
- Bass, John H. Outline of History of Medicine and the Medical Profession. Edited and revised by Henry E. Handerson. New York: J. H. Vail and Co., 1889.
- Bender, George A. Great Moments in Medicine. Detroit: Northwood Institute Press, 1966.
- Bettmann, Otto L. Pictorial History. Springfield, Ill.: Charles C. Thomas Publishers, 1956.
- Bouchut, Eugène. Histoire de la médecine et des doctrines médicales. Paris: Baillière, 1873.
- Bouillet, J. Précis d'histoire de la médecine. Paris: Baillière, 1883.
- Boyce, Gray C. The English-German Nation in the University of Paris during the Middle Ages. Bruges, Belgium: The Saint Catherine Press, ltd., 1927.
- Brown, Alfred J. Old Masterpieces in Surgery. Omaha: private printing, 1928.
- Buck, Albert H. The Growth of Medicine from the Earliest Times to about 1800. New Haven: Yale University Press, 1917.
- Bullough, Vern L. The Development of Medicine as a Profession; the Contribution of the Medieval University to Modern Medicine. New York: Hafner Publishing Co., Inc., 1966.
- Cabinis, Pierre J. G. Coup d'oeil sur les révolutions et sur la réforme de la médecine. Paris: Chez Crapart, Caille et Ravier, 1804.
- Castiglioni, Arturo. A History of Medicine. Edited and translated by E. B. Krumbhaar. New York: Alfred A. Knopf and Co., 1941.

Clark, John W. Libraries in the Medieval and Renaissance Periods. Cambridge: Macmillan and Bowes, 1894.

Compayre, Gabriel. Abelard and the Origin and Early History of Universities. New York: AMS Press, Inc., 1963.

Corner, George. Anatomical Texts of the Earlier Middle Ages; a Study in the Transmission of Culture, with a revised Latin Text of Anatomia Coponis and Translations of four Texts. Washington, D.C.: Carnegie Institution of Washington, 1927.

Crombie, Alistair C. Medieval and Early Modern Science. 2 vols. 2d rev. ed. Cambridge: Harvard University Press, 1963.

Curry, Walter C. Chaucer and the Sciences. New York: Barnes and Noble, Inc., 1960.

Dawson, Bernard. The History of Medicine. New York: Macmillan Company, 1932.

Delisle, Leopold V. Le cabinet des manuscrits de la Bibliothèque Imperial. Paris: Imprimerie impériale, 1868-1881.

\_\_\_\_\_. Inventaire alfabétique des livres imprimés sur vélin de la Bibliothèque Nationale. Paris: H. Champion, 1877.

\_\_\_\_\_. Inventaire des manuscrits français de la Bibliothèque Nationale. 2 vols. Paris: H. Champion, 1876-1878.

Dorveaux, Paul. Le livre des simples medecines. Traduction française du Liber de simplici medicina dictus Circa instans de Platearius tirée d'un manuscrit du XIIIe siècle (Ms. 3113 de la Bibliothèque Ste. Geneviève de Paris) et publiée pour la première fois. Paris: Société française d'histoire de la médecine, 1913.

Dumesnil, Rene. Histoire illustrée de la médecine. Paris: Editions d'Histoire et d'Art Libraire, 1935.

Dunlison, Robley K. History of Medicine from the Earliest Ages to the Commencement of the 19th Century. Edited by Richard J. Dunlison. Philadelphia: Lindsey and Blakiston, 1872.

Durant, Will. The Age of Faith. New York: Columbia University Press, 1950.

Fisher, Sidney N. The Middle East: A History. New York: Alfred A. Knopf, 1960.

Franklin, Alfred L. Les anciennes bibliothèques de Paris. 3 vols. Paris: Imprimerie impériale, 1867-1873.

\_\_\_\_\_. Histoire de la bibliothèque de l'abbaye de Saint-Victor à Paris. Paris: A. Aubry, 1865.

Franklin, Alfred A. Recherches sur la bibliothèque de la Faculté de médecine de Paris. Paris: A. Aubry, 1864.

\_\_\_\_\_. Recherches sur la bibliothèque publique de Notre-Dame de Paris au XIII<sup>e</sup> siècle. Paris: A. Aubry, 1863.

Garrison, Fielding H. Contributions to the History of Medicine. New York: Hafner Publishing Co., 1966.

\_\_\_\_\_. An Introduction to the History of Medicine. 3d rev. ed. Philadelphia: W. B. Saunders Co., 1929.

Glubb, John. The Empire of the Arabs. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965.

Gordon, Benjamin L. The Romance of Medicine. Philadelphia: F. A. Davis Co., 1944.

\_\_\_\_\_. Medicine Throughout Antiquity. Philadelphia: F. A. Davis Company, 1949.

Gorton, David A. The History of Medicine. 2 vols. New York: G. P. Putnam's Sons, 1910.

Graham, Harvey. The Story of Surgery. New York: Doubleday, Doran & Co., Inc., 1939.

Guthrie, Douglas. A History of Medicine. Philadelphia: J. B. Lippincott Co., 1946.

Hahn, Andre et al. Histoire de la médecine et du livre médical à la lumière des collections de la Bibliothèque de la Faculté de médecine de Paris. Paris: O. Perrin, 1962.

Hamilton, William. The History of Medicine, Surgery, and Anatomy from the Creation of the World to the Commencement of the 19th Century. 2 vols. London: Henry Colburn and Richard Bentley, 1831.

Haskins, Charles Homer. Studies in the History of Mediaeval Science. 1924. Reprint. New York: Frederick Ungar Publishing Co., 1960.

- Heer, Friedrich. The Medieval World. Translated by Janet Sondheimer. Cleveland: World Publishing Company, 1962.
- Hitti, Philip K. History of the Arabs from the Earliest Times to the Present. New York: St. Martin's Press, 1960.
- Kremer, Edward and George Urdang. History of Pharmacy. 3d ed. Edited by Glenn Sonnedecker. Philadelphia: J. B. Lippincott Company, 1963.
- Kristeller, Paul A. Latin Manuscript Books before 1600. A List of the Printed Catalogues and Unpublished Inventories of Extant Collections. 2d rev. ed. New York: Fordham University Press, 1960.
- Laignel-Lavastine, Maxime. Histoire générale de la médecine, de la pharmacie, de l'art dentaire et de l'art vétérinaire. 2 vols. Paris: Bertrand Guegau, 1936-1950.
- Leonardo, Richard A. History of Surgery. New York: Froben Press, 1943.
- Lockwood, Dean P. Uzo Benzi. Medieval Philosopher and Physician (1376-1439). Chicago: University of Chicago Press, 1951.
- Lodge, Richard. The Close of the Middle Ages, 1273-1494. London: Rivingtons, 1928.
- Lyght, Charles E., ed. The Merck Manual of Diagnosis and Therapy. Rahway, New Jersey: Merck, Sharp, and Dohme Research Laboratories, Division of Merck and Co., Inc., 1966.
- Oman, Charles. The Dark Ages. London: Rivingtons, 1962.
- Paetow, Louis J. The Arts Course at Medieval Universities with Special Reference to Grammar and Rhetoric. University of Illinois Studies, vol. 3, No. 7. Urbana-Champaign: University Press, 1910.
- Paris, Paul. Les manuscrits français de la bibliothèque du roi. 7 vols. Paris: Techeuer, 1836-1848.
- Previte-Orton, Charles W. The Shorter Cambridge Medieval History. 2 vols. Cambridge: Cambridge University Press, 1952.
- Puschmann, Theodor. A History of Medical Education. 1891. Reprint. New York: Hafner Publishing Co., 1966.
- Rait, Robert S. Life in the Medieval University. Cambridge: Cambridge University Press, 1912.

Rapport, Samuel and Wright, Helen, eds. Great Adventures in Medicine. New York: The Dial Press, 1952.

Rashdall, Hastings. The Universities of Europe in the Middle Ages. 2d ed. ed. F. M. Powicke and A. B. Emden 3 vols. Oxford University Press, 1958.

Richardson, Ernst C. Beginnings of Libraries. Princeton: Princeton University Press, 1914.

Robert, Ulysee. Inventaire sommaire des manuscrits des bibliothèques de France. Paris: Honore Champion, Libraire, 1896.

Robinson, Victor. The Story of Medicine. New York: Tudor Publishing Co., 1936.

Sarton, George. Galen of Pergamon. Lawrence: University of Kansas Press, 1954.

\_\_\_\_\_. Introduction to the History of Science. 3 vols. 1927. Reprint. Baltimore: Williams and Wilkins Co., 1950.

Savage, Ernest A. The Stories of Libraries and Book-collecting. London: Geo. Routledge & Sons, Ltd; New York: E. P. Dutton & Co., 1909.

Schachner, Nathan. The Mediaeval Universities. New York: A. S. Barnes & Company, Inc., 1962.

Shippen, Katherine. Men of Medicine. New York: Viking Press, 1963.

Singer, Charles J. From Magic to Science. New York: Boni and Liveright Publishers, 1928.

\_\_\_\_\_. and Underwood, Edgar A. Short History of Medicine. New York: Oxford University Press, 1962.

\_\_\_\_\_, ed. Studies in the History and Method of Science. 2 vols. Oxford: Clarendon Press, 1917-1921.

Stenn, Frederick, ed. The Growth of Medicine. Springfield, Illinois: Charles C. Thompson Publisher, 1967.

Strecker, Karl. Introduction to Medieval Latin. Translated and revised by Robert B. Palmer. Berlin: Weidmannashe Verlagsbuchhandlung, 1957.

- Sudhoff, Karl. "A Medical Health Resort and Medical School on the Tyrrhenian Sea." Translated by John C. Hemmeter and Fielding H. Garrison. In Essays in the History of Medicine, edited by Fielding H. Garrison. New York: Medical Life Press, 1926.
- Taber, Clarence W. Taber's Cyclopedic Medical Dictionary. 2d ed. Philadelphia: F. A. Davis Co., 1942.
- Talbot, Charles H. and Hammond, Eugene A. The Medical Practitioners in Medieval England. A Biographical Register. London: Wellcome Historical Medical Library, 1965.
- Thompson, Edward M. Handbook of Greek and Latin Paleography. New York: D. Appleton and Co., 1893.
- Thompson, James W. The Medieval Library. 3d ed. New York: Hafner Publishing Co., 1967.
- \_\_\_\_\_ and Johnson, Edgar N. An Introduction to Medieval Europe, 300-1500. New York: W. W. Norton & Company, Inc., 1937.
- Thorndike, Lynn and Kibre, Pearl. A Catalogue of Incipits of Mediaeval Writings in Latin. 2d ed. Cambridge, Massachusetts: The Mediaeval Academy of America, 1963.
- \_\_\_\_\_. History of Magic and Experimental Science. 8 vols. New York: Columbia University Press, 1923-1958.
- \_\_\_\_\_. University Records and Life in the Middle Ages. New York: Columbia University Press, 1944.
- Thurston, Herbert and Attwater, Donald, eds. Butler's Lives of the Saints. New York: P. J. Kenedy and Sons, 1962.
- Walker, Kenneth. The Story of Medicine. New York: Oxford University Press, 1955.
- Walsh, James J. The Popes and Science. New York: Fordham University Press, 1911.
- \_\_\_\_\_. The Thirteenth Greatest of Centuries. New York: Catholic Summer School Press, 1909.
- Wickersheimer, Ernest. Dictionnaire biographique des medecins en France au moyen age. 2 vols. Paris: Librairie E. Droz, 1936.



Wilder, Alexander. History of Medicine. 1899. Reprint.  
New Sharon, Maine: New England Eclectic Publishing Co.,  
1901.

# PERIODICALS

Bauer, Marguerite L. "Recherches sur l'histoire de  
l'anesthésie avant 1846." Janus 31(1927):24-39, 63-90,  
124-37, 170-82, 213-25, 264-70.

Brown, Horace M. "De Venenis of Petrus Abbonus." Annals of  
Medical History 6(1924):25-52.

Bullough, Vern. "The Medieval Medical University at Paris." Bulletin of the History of Medicine 31(1957):197-211.

\_\_\_\_\_. "Population and the Study and Practice of  
Medieval Medicine." Bulletin of the History of Medicine  
36(1962):62-69.

Castiglioni, Arturo. "Aulus Cornelius Celsus as a Historian  
of Medicine." Bulletin of the History of Medicine  
8(1940):857-73.

Crummer, Le Roy. "Copho's 'Anatomia Porci.'" Annals of  
Medical History 9(1927):180-82.

D'Irsay, Stephen. "The Life and Works of Gilles de Corbeil." Annals of Medical History 7(1925):362-78.

\_\_\_\_\_. "Teachers and Text Books of Medicine in  
the Medieval University of Paris." Annals of Medical  
History 8(1926):234-39.

Dunlop, D.M. "Arabic Medicine in England." Journal of the  
History of Medicine and Allied Sciences 11(1956):166-82.

Engbring, Gertrude M. "Saint Hildegard, Twelfth Century  
Physician." Bulletin of the History of Medicine 8(1940):  
770-84.

Fitzgerald, William. "Medical Men Canonized Saints." Bulletin of the History of Medicine 22(1948):635-46.

Friedenwald, Harry. "On the Giving of Medical Degrees during  
the Middle Ages by Other than Academic Authority." Annals of Medical History 3(1921):64-66.

\_\_\_\_\_. "Historical Notes." Annals of Medical  
History 6(1924):362.

- Jones, Harold W. "The Faculty of Medicine of Paris." Annals of Medical History 3d series 1(1939):1-29.
- Karl, Louis. "Theodoric de l'Ordre des Prêcheurs et sa chirurgie." Bulletin de la Société Française d'Histoire de la Médecine 23(1929):140-83.
- Kibre, Pearl. "The Faculty of Medicine at Paris, Charlatanism and Unlicensed Medical Practices in the Later Middle Ages." Bulletin of the History of Medicine 27(1953):1-20.
- \_\_\_\_\_. "Hippocratic Writings in the Middle Ages." Bulletin of the History of Medicine 18(1945):371-412.
- Kristeller, Paul O. "The School of Salerno; Its Developments and Its Contribution to the History of Learning." Bulletin of the History of Medicine 17(1945):138-94.
- Levey, Martin. "Ibn Masawaih and his Treatise on Simple Aromatic Substances: A Study in the History of Arabic Pharmacology." Journal of the History of Medicine and Allied Sciences 16(1961):394-410.
- Mendelson, Walter. "Maimonides, a Twelfth Century Physician." Annals of the History of Medicine 5(1923):250-62.
- Middleton, William S. "A Biographic History of Physical Diagnosis." 6(1924):426-52.
- Packard, Francis R. "Review of History of Medicine by Max Neuburger." Annals of Medical History 9(1927):198.
- Pansier, P. "Experimenta Magistri Gilliberti." Janus 7(1903):20-25, 65-69, 141-47.
- Riesman, David. "A Physician in the Papal Chair." Annals of Medical History 5(1923):291-300.
- Sigerist, Henry E. "The Latin Medical Literature of the Early Middle Ages." Journal of the History of Medicine and Allied Sciences 13(1958):127-46.
- \_\_\_\_\_. "Materia Medica in the Middle Ages." Bulletin of the History of Medicine 6(1939):417-23.
- Thorndike, Lynn. "Peter of Abano and another Commentary on the Problems of Aristotle." Bulletin of the History of Medicine 29(1955):517-523.

Welborn, Mary C. "Studies in Medieval Metrology. The De ponderibus et mensuris of Dino del Garbo." Isis 24(1935):15-36.