

Articoli/Articles

BYZANTINE MEDICAL BOOK
AND THE DIFFUSION OF BYZANTINE MEDICINE
IN THE EASTERN MEDITERRANEAN

INTRODUCTION

PEDRO BADENAS de la PENA
Consejo Superior de Investigaciones Cientificas
Instituto de Filologia, Madrid, S

The vehicle through which Byzantine Medicine is mainly known, the book, has been little studied as a source of the History of Byzantine Medicine, or, at least, it has not been taken into consideration as it deserves; instead, it is generally analyzed in the perspective of philological works, particularly critical editions, in order to confirm the results of the examination of texts by means of the historical data it furnishes, mainly its epoch of copy and its circulation¹.

Submitted to a specific analysis duly carried out, the book is however a primary source of first importance for the History of Byzantine Medicine as it can reveal its daily practice; in this way, it enables the historian to approach the concrete exercise of Medical Art, without limiting History of Medicine to the study of treatises at a macro-structural level².

This perspective has been perfectly exemplified in the work *The Birth of the Hospital* by T. Miller³: in order to reconstitute the medical activity of Byzantine hospitals - and, hence, the birth of Hospital-, Miller used, among others, the witness of medical manuscripts, i.e. the informations which can be obtained from their analysis like the identity of their copists and, on this basis, their place of copy, the title of the recipes collections they bear, or the notes added by their readers or possessors, and all of them can reveal the use of the book by actual practitioners, their successive owners, or the place of creation of the text it contains.

How productive it can be, this approach of ancient medical book - in our case: of manuscripts - as a source for the History of Medicine is subject to severe limitations in the current state of bibliography, mainly due to the fact that the historian has to rely on the bibliography, i.e. on the data at disposal in printed catalogues of manuscript collections⁴, unless he himself analyses anew the codices by means of an autoptic examination of the original pieces themselves - and not on whatever form of copy, microfilm, photo or other on their place of conservation; but, due to the dissemination of the manuscripts throughout the world, such an analysis is not always possible, without speaking of the fact that, in any case, it has to rely, at least in a first time, on the descriptions offered in printed catalogues to identify the manuscripts to be analysed.

Now, the printed descriptions greatly vary from one catalogue to another and, in any case, they furnish, as they have to do, crude data, i.e. factual informations not exploited in a historical perspective and, consequently, not inserted into the historical context from which they result at least in part and to the reconstruction of which they contribute.

Unless confirming, precisising and possibly also enlarging these data by personal analysis of the manuscripts, historical works depending on printed descriptions of manuscripts are thus necessarily tentative essays, the results of which could always be precisised and completed by further examination of *codices*.

But what kind of information can the examination of manuscripts give to the historian? Without fully discussing here this point, we have to stress that, for the last fifty years approximately, codicology affirmed itself as a discipline of its own, devoted to what has been called the *material archaeology of book*⁵. Like monumental or other forms of archaeology, it aims to study the material components of book, to submit each of them to a specific analysis, to associate the results of these sectorial analysis in coherent *ensembles*, to trace possible historical evolutions within these *ensembles* - i.e. to identify an internal, or relative, chronology -, to date precisely these evolutions, passing thus from a relative to an absolute chronology, and, finally, to reconstruct the History of Book on this basis, as well as on the basis of its inter-relation with the History of Culture.

Born in the context of Classical studies and applied in a pioneering way to works like those by the Greek poet Pindar⁶, by a didactic author like Aratus⁷ or by a scientist, the astronomer Autolycus⁸, this approach is now generalised in the field of Classical literature, be it Greek or Latin⁹. Through the reconstruction of the history of the works by means of the analysis of the text, as well as of the material components of the manuscripts which bear the text, it mainly aims to trace if not the original of these works (a thing which is no more possible for those of Classical Antiquity), at least the best witness of their text (usually, the text less corrupted by manuscript copy which is normally the one separated from the original by the lowest number of intermediaries). The method has been transferred to scientific, viz medical literature, although to a lesser extend and in a perspective mainly philological, for the critical edition of texts¹⁰.

However, some works exploit the codicological perspective *in se et per se*, to concretely follow the texts in their relation with their producers and, possibly also, with their users so as to bring into light their insertion in actual medical practice. We could quote, for example, the study by P. Canart, dealing with the production and circulation of book in Southern Italy¹¹, that by G. Cavallo on medical book in the same area¹² or those of the transmission of Dioscorides' and Galen's treatises in the Peninsula, respectively by A. Touwaide¹³ by N. G. Wilson¹⁴.

Significantly enough, these works focused on determined areas: Sicily and Southern Italy. For historical reasons on which we shall return, the number of manuscripts coming from these regions is limited and the manuscripts themselves are quite well known so far, although with some problems still to be solved¹⁵. It is to say that the corpus to be submitted to the analysis is clearly defined - or could be so -, and this is precisely the specificity of the Siculo-Italian area, because, for the rest of the Byzantine Empire, the documentation at disposal is by far more abundant and cannot be covered in its totality.

During 19th c., tools were progressively created, however, to inventory all the extant medical manuscripts throughout the world. First began by the German philologist Fr. Dietz at the beginning of the century¹⁶, without having been achieved because

of Dietz' premature death, this research programme was taken anew around mid-19th century by the French historian of Medicine Charles Daremberg: although he planned a general inventory of manuscripts, he only published an inventory and an analysis of those conserved in the libraries of the United Kingdom¹⁷. At the end of 19th c., a Greek philologist living in Paris, G. Costomiris, produced a similar inventory of the codices of the Bibliothèque Nationale in Paris in which he quoted also a high number of other libraries, among others those of Mount Athos in Greece¹⁸. The research programme became a reality during the first decade of 20th c., thanks to a large équipe of German philologists lead by the famous historian of ancient philosophy Hermann Diels; it is the so-called *Diels*, i.e. the inventory of the extant manuscripts known at that time, listed by authors and, in the case of more treatises by the same author, by work¹⁹.

Although it has been an indispensable tool for many years - at least in the lack of an updating -, the Diels is far from being exhaustive, without speaking of the fact that it is now obsolete not only because it does not correspond anymore to the current state of collections, but also because cataloguing has been improved and new items have come to the light. On the first point indeed, collections have changed owner and some of them location as well, while other have been totally or partially destroyed, mainly during the World Wars. On the second point, it will be enough to state that the inventory made by Diels' collaborators did not usually rely on a personal examination of collections - or at least not completely -, but on the lists of the printed catalogues they had at disposal, some of which dating back to the 18th c. It is to say that Diels' inventory is absolutely no more updated, a fact which does not exclude however that it is still useful.

Although inventory and cataloguing of medical manuscripts greatly improved during recent decades, the works at disposal are anyway partial²⁰: they cover indeed the whole collection²¹ or a series of a single library²² the manuscripts of a single author - be it known or anonymous or²³ - or of one of his treatises²⁴, mainly as a preface of a new critical edition prepared according to the most recent and highest rules of Classical Philology²⁵; the history of an ancient manuscript collections²⁶, some of which

contained a significant number of medical books; inventory of manuscripts of texts dealing with a specific topic in a determined collection (anonymous botanical treatises and scientific illustrated codices of the Bibliothèque Nationale of Paris²⁷) or all over the world (medico-botanical lexica²⁸) or, finally, single manuscripts particularly important for the tradition and diffusion of an ancient medical treatise²⁹. Undoubtly, all of these works greatly contributed to a better knowledge of Byzantine medical book, even if there was still a need for a renewed and general tool in the field.

This is precisely the topic of the vaste research programme launched by A. Touwaide a few years ago and carried on under the title *Corpus of Greek Medical Manuscripts*³⁰. The purpose of the project is twofold: on the one hand, it aims to inventory the medical manuscripts, so as to update the information offered by the old catalogue edited by Hermann Diels and, consequently, to remplace it. In this perspective, it relies not only on the inventory of manuscripts made in the printed catalogues at disposal, which are by far more numerous and more complete than in Diels' epoch, but also on an autoptic examination of libraries collections, so as to trace all the extant medical manuscripts presently known. In this sense, it is an update of Diels' inventory. But, on the other hand, the *Corpus* will include the results of the codicological, palaeographical, textual and historical analysis of the manuscripts themselves, on the basis of the data furnished in the increasing bibliography on the topic, as we showed, as well as on that of a personal examination of the manuscripts, so as to enable the scholars to contextualise the manuscripts and their texts. Already useful for the history of texts conceived in a classical perspective and finalised to the critical edition of the text the manuscripts bear, this catalogue will be above all a tool of primary importance for the reconstruction of the intellectual activity from which the manuscripts themselves resulted, all the more because it will include sectorial indices, dealing with the material components of manuscripts (e.g. watermarks of paper, size of manuscripts or similar), as well as with their historical data (among others, place of copy and epochs and vice versa; copists, committents or users).

The constitution of such a corpus is a large enterprise which requires important financial means not always at disposal. Notwithstanding, Touwaide's inventory and description of manuscripts is constantly progressing and we hope that he will be able to communicate his work to the World of Scholarship in a near future.

In the meantime, first results have already been obtained, which allow to reconstruct some pieces of the whole puzzle. They all share a same feature: the fact to have been produced if not in an interdisciplinary way, at least by the conjunction of several sectors of Byzantine studies, comparing the data obtained, on the one hand, from the analysis of medical manuscripts and, on the other, from codices of different fields of knowledge, as well as from the History of Byzantine institutions and Culture. One of the most promising examples is probably the reconstitution of the activity of an *atelier* of book production in Constantinople during the 14th c., that of the Prodromos Monastery, in the so-called area of *The Petra*. Linked with a library, a school - the *katholikon mouseion* - and, probably also, a hospital - the *xenodocheion tou kralê* -, this *atelier* was already known³¹. But, in a round-table on medical texts in the area of the Balkans during the Late Byzantine and Early Ottoman period organised in Madrid in Autumn 1998³², it appeared that there is a strong convergence of the analysis of the books produced in the atelier in the fields of Medicine³³ and of Philosophy (especially Logic³⁴) on the one hand, and, on the other, that the results of the analysis of the manuscripts take a new dimension if they are enlightened by the historical data furnished by sources like acts, donations, official texts and historical narrations³⁵. As a result, the partial pieces of History reconstructed on the basis of sectorial analysis gained more coherence and, hence, more historical consistency; consequently, it seems possible from now onwards to reconstruct a large part of the intellectual activity of this centre during 14th and 15th c.

The important point is that the image of Medicine resulting from such an enquiry is by far more precise, more concrete and more living than the previous one, interested in the macro-history, i. e. to the sequence over time of treatises considered as sta-

tic and abstract entities. On the contrary, History of Medicine as witnessed from the detailed study of manuscripts is a real and daily one, which enables us to see men, in the specific case Byzantine physicians, creating new knowledge, using it for the treatment of patients, improving their corpus of scientific data and gathering new informations. To sum up: we are in presence of the concrete exercise of an activity devoted to the improvement of knowledge and to its practical application³⁶.

This concept of Byzantine Medicine is new, since Medical Art in Byzantium has been often considered as an impoverishment of Classical Medicine, enlightened by two among the fathers of Medicine, Hippocrates and Galen. On the opposite, the renewed examination of Byzantine scientific activity on the basis of the manuscript material leads us to stress a twofold development of knowledge: on the one hand, the tradition of Ancient Medical Art as represented by Hippocrates and Galen, as well as by other important authors like Dioscorides, for example; but, contrarily to what has been asserted till now, not even the preservation of this legacy was passive; it raised an important activity of teaching, updating and theoretical thinking which not only produced commentary and scholarly glosses, but also gave rise to new and original works devoted to the exploitation of what appears thus to have been a founding knowledge³⁷. On the other hand, Byzantine Medicine created new types of treatises and works, resulting from the transformation of the field of Medicine itself and its actualisation according to changing factors, of social and cultural nature, among others. The best example of this modification is probably the *iatrosophion*, i. e. the recipe book devoted to practical purposes, which gathers medical prescriptions coming from different sources and ordinated according to various principles, mainly the topographic one, called *a capite ad calcem*, or *from head to feet*³⁸. Due to the simplicity of its form, the *iatrosophion* became the vehicle of medical knowledge for centuries, as it fitted both the introduction of new data according to actual medical science and practice, and - consequently - the changing socio-cultural conditions like those of the Late-Byzantine Empire and the Post-Byzantine World.

One of the main features of this renewed image of Byzantine Medicine is its opening to a wide range of streams and influences of various origins, without being limited, as it has been too often asserted, to the pre-eminence of Constantinople and to that of Ancient Medicine as represented by Hippocrates, Galen and other emblematic figures. This fact was rooted in a further characteristic of Byzantine Medicine: its diffusion in the Mediterranean area and, conversely, the influences to which it was submitted, i.e., generally speaking, the circulation of medical knowledge within the Mediterranean World.

Until a recent epoch, it was believed indeed that Medical Art within the Byzantine Empire developed mainly - if not exclusively - in Constantinople and thanks to the works of high level physicians, those of the imperial service or of the major schools. The treatises studied in Byzantine medical Historiography were general encyclopedias of Medicine or works devoted to the preservation of ancient tradition. Consequently, the concept of Medicine resulting from this view was static and led modern scholarship to the conclusion that Byzantine Medicine was not original, in the best cases, and only a deterioration of Classical, viz Ancient Medicine in the worst³⁹.

From the analysis of Byzantine medical books carried out as we referred to, it results that scientific information circulated a great deal within the Mediterranean.

As for the exchange between Greek speaking people, Ancient Medicine arrived in Italy during the Roman Period and was uninterruptedly transmitted, above all in the South of Peninsula, according to the traditional vision. Because of the progressive reduction of Greek speaking communities in Southern Italy in relation with the loss of territory by the Byzantines, the circulation of texts was not so important as it was in Constantinople or in Alexandria until the Arab Conquest in 732. Consequently, the texts were not submitted to the same phenomenon of alteration due to their manuscript reproduction; instead, they preserved with more fidelity their literality of medical treatises and witness better thus an ancient state of text, probably not the original one, but one anterior to that witnessed by Constantinopolitan *codices*.

This reductive image of the circulation of the book - the supposed effects of which were exploited in the critical edition of Classical Literature according to the principles of 19th c. Philology - is highly challenged by History, especially political history. Among other events, we could quote indeed the Latin occupation of Constantinople and the reduction of the Byzantine territory due to the expansion of the Arab and furtherly of Turkish nations, which all provoked a dissemination of the centres of production, on the continent as well as in the islands, and, as a consequence, the flourishing of peripheric schools. Necessarily, these transfers increased the circulation of books, even though the epoch was one of deterioration of the socio-political conditions and, hence, of the economical ones, a fact which provoked a reduction of cultural, viz book production. But, more specifically, Cultural History showed that there were exchanges between the Metropolis and the peripheric zones of the Empire, and vice versa. The analysis of the manuscripts of the so-called *Ephodia* is significant on this point.

The text they bear, entitled *Ephodia*, is the Greek translation of the Arabic treatise *Zâd al Musâfir* by Abu Jafâr⁴⁰. Now, from a textual and codicological analysis, it can be demonstrated that the translation was probably made in Sicily or in Southern Italy and that the text - and thus also the books - circulated from there to the East, not only to Constantinople, but also to Thessaloniki⁴¹. This way was probably followed also by other texts translated from Arabic into Greek, not inventoried until recently.

The circulation of texts and books within Greek speaking people in the Mediterranean draws the attention on a similar fact, the diffusion of ideas between cultures, in this case between Byzantium and the Arabic World. The transfer of knowledge from the Greek to the Arabic World is well known since a while⁴², although it has not been fully studied till now and has not given raise to the critical edition which deserves, preferably bilingual (Greek and Arabic). Similarly, but to a lesser extend, the diffusion of Byzantine Medicine to other cultural worlds, like the Jewish one, has already been studied. The opposite is less known, i.e. what could be called a *reverse influence*: that from Baghdad to Byzantium.

Already stated in classical scholarship with the works by Kurt Sprengel⁴³, who mentioned that the 11th c. physician Symeon Seth took a part of his information from the Arabic World, that by Charles Daremberg already mentioned⁴⁴ and, during 20th c., those by G. Gabrieli⁴⁵, who both were the first to study the *Ephodia*, as well as by A. Kouzes⁴⁶, who devoted a brief article to the question, this topic was first studied in the field of Astronomy by J. Mogenet who wrote in 1952 a pioneering article on the first trace of Arabic influence in Byzantium, found in a comput dated 1032⁴⁷. The late Georg Harig published, 15 years later, a renewed study on the sources of Symeon Seth⁴⁸ and, since then, some work dealt with the study of the Arabic influence on Byzantine knowledge in the fields of Astronomy and Mathematics. Fresh research has demonstrated that, in Medicine as well as in Astronomy, Baghdad began to transmit its knowledge to Byzantium from the mid 11th c. onwards⁴⁹.

These transfers of knowledge did not end with the Conquest of Constantinople in 1453, even though they changed. On the one hand, the Legacy of Antiquity and Byzantium was preserved among Greek speaking people within the Ottoman Empire, who adapted it, however, to the new society born with the inclusion of the ex-Byzantine Empire within the Ottoman one⁵⁰. Although Classical and Byzantine Medicine were still studied, they were re-elaborated according to the new linguistic situation of Greece, largely influenced by the co-existence on the same territory of Greek population with Turkish and Arabic speaking people, i. e. metaphrased into Modern Greek. Simultaneously, the *iatrosophia* of the Byzantine period became more open than in the past to the external influence, which was deeply assimilated. But, on the other hand and in the same time, Greek Medicine or, at least, Greek-like Medicine (i. e. Ancient Medicine as it was received and re-elaborated by the Arabic World) passed to Ottoman people through their Arabic neighbour, not without an inter-action, however, between the Greek Community of the Ottoman Empire and Ottoman physicians⁵¹.

These phenomena of reciprocal influence are probably best represented by the lexica of medical or botanical terms, where we find Classical Greek terms (from Ancient medical treatises),

their Modern Greek equivalent, the Turkish translation (which is often the Arabic one) and also what is called the *Frankish* translation, i.e. the Latin translation of the terms, or even the Italian one. This linguistic plurality reflects without doubt the multiplicity of factors that influenced Medicine during the Late Byzantine Empire and after, within the Ottoman World: to a main stream of Greek or Greek-rooted Medicine, were added elements of various origins which were associated so as to contribute to the efficiency of the Medical Art, regardless of their origin.

Such an image of Byzantium is quite different from the one previously presented in the literature. The Byzantine Empire received, indeed, the Legacy of Antiquity and preserved it, not without re-elaborating it as we said; but, in the same time, it adapted knowledge to changing historical and, hence, social and cultural conditions, with a highly efficient plasticity, which is far from being the hieratic attitude too often attributed to the Byzantine World.

This renewed conception of Byzantium changes the Historiography of Byzantine Culture, and also, as a consequence, that of the Western Renaissance of 14th and 15th c.⁵², which is not so *modern* as it has been asserted till now, but, on the opposite, is rooted, at least partially, in the Byzantine and, furtherly, Post-Byzantine attitude towards novelty. But this is another question *.

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27. THOMSON M. H., *Catalogue des manuscrits grecs de Paris contenant des traités anonymes de botanique*. Revue des études grecques 1933;XLVI:334-348, and, further: EADEM, *Textes grecs inédits relatifs aux plantes*. Nouvelle collection de textes et documents, Paris, 1955. On the same topic, see also DELATTE A., *Le lexique de botanique du Parisinus graecus 2419*. In: *Serta Leodiensia*, Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège, fascicule XLIV, Liège-Paris, 1930, pp. 59-101, et IDEM, *Anecdota Atheniensia et alia*. Vol. 2: Textes grecs relatifs à l'histoire des sciences, Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège, fascicule LXXXVIII, Liège-Paris, 1939, *passim*, for the inventory and critical edition of some lexica. For the illustrated scientific manuscripts of the Bibliothèque Nationale, see LAZARIS S., *Inventaire sommaire des manuscrits grecs scientifiques illustrés de la Bibliothèque Nationale de Paris*. BYZANTIKA 1993;13:193-265.
28. TOUWAIDE A., *Lexica medico-botanica byzantina. Prolégomènes à une étude*. In: *TES FILIES TADE DORA. Miscelanea en memoria de Conchita Serrano*. Madrid, forthcoming.
29. A good example is the study by IRIGOIN J., *L'Hippocrate du Cardinal Bessarion*. In: *Miscellanea Marciana di Studi bessarionei*, Padova, 1976, pp. 161-174.
30. *The Corpus of Greek Medical Manuscripts: A Computerized Inventory and Catalogue*. In: *Primary Sources & Original Works*, 1991, 1, pp. 75-98.
31. See the fundamental article by KAKOULIDAS E. D., *E bibliothêkê tês Monês Prodromou Petras stên Kônstantinoupolê*. Ellênika 1968;21:3-39.
32. *Medicina codificada y terapéutica tradicional en los Balcanes de época otomana*. Mesa redonda internacional. Madrid, Consejo Superior de Investigaciones Científicas, Instituto de Filología, 29-30 October 1998. The proceedings will be published in the Collection *Nueva Roma* (Madrid).
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34. Among the articles by CACOUROS M., see recently (with the references of his previous works) *Néophytos Prodromênos copiste et responsable (?) de l'édition quadrivium-corporum Aristotelicum du 14^e siècle*. Revue des études byzantines 1998;56:193-212.
35. See the communication delivered, during Madrid round-table, by MALAMUT E., *Les relations byzantino-serbes et l'histoire du Xénôn du Kralj au Prodrome de Pétra*.
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Pedro Badenas de la Pena

Correspondence should be addressed to:
Pedro Badenas de la Pena, Consejo Superior di Investigaciones Cientificas,
Instituto de Filologia, Madrid, ES.

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Articoli/Articles

GRIECHISCHE KOPISTEN MEDIZINISCHER
HANDSCHRIFTEN
MIT ZWEI ABBILDUNGEN

ERNST GAMILLSCHEG
Österreichische Nationalbibliothek, Wien, A

SUMMARY

COPYISTS OF MANUSCRIPTS FOR MEDICINE

The study of the manuscript tradition for important Byzantine physicians shows that we have from the twelfth century copies made by the scribe Ioannikios for Aetius Amidenus and Paulus Aegineta. From the fourteenth and fifteenth century we know manuscripts for these authors proving the influence of the authorities on the medical practice. Johannes Staphidakes worked as a scribe and composed medical treatises, Demetrios Pepagomenos is attested as a physician in the reign of the emperor Manuel II Palaiologos. The monk Athanasios, working in the fifteenth century at Constantinople, restored a manuscript of Aetius Amidenus.

Eine vor kurzem publizierte Studie über die griechischen Manuskripte in der Bibliothek der Medici informiert uns in einer Signaturenübersicht über jene Handschriften medizinischen Inhaltes, die sich im ausgehenden 15. Jahrhundert im Besitz dieser Familie befanden¹. Es fällt auf, daß ein großer Teil der Produktion des Kopisten Ioannikios² auf Abschriften der Autoren Galenos, Aetios von Amida und Paulos von Aigina entfällt³: Von 16 Manuskripten enthalten 12 die Vertreter der antiken und frühbyzantinischen Medizin, Interesse verdient der Umstand, daß zwei Codices von Burgundio von Pisa⁴ annotiert wurden.

Ioannikios, der durch die Verwendung einer extrem kursiven Form der Griechischen Minuskel nicht leicht zu datieren ist⁵, wirkte im 4. Viertel des 12. Jahrhunderts und ist als Spezialist für die Kopie medizinischer Autoren zu werten.

Key words: Greek Manuscripts - Greek Copyists