

## CHAPTER 2

# BYZANTINE BOOKS

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Recent research on Byzantine manuscripts and new technologies have produced an extraordinary amount of information about the material aspects of the Byzantine book, writing styles (although work on some periods is less advanced than on others),<sup>1</sup> reading, and literacy.<sup>2</sup> Meanwhile, an entire generation of philologists has begun to consider Byzantine manuscripts as more than just an auxiliary matter, and they are becoming interested in the dialectic relationship between the message and the medium. Palaeography, a discipline that operates between history and philology, is not confined to the study of writing but analyzes Greek codices and literature in the context of Byzantine material culture.

It is not possible within the scope of this chapter to give a classification of Byzantine books or to explain the production process in detail.<sup>3</sup> Nor can we focus on books linked to the liturgy, ecclesiastical organization, monasticism, dogma, and theology, which in a Christian civilization such as Byzantium present a more varied and rich typology than the secular book. Decoration and illumination were practically a prerogative of sacred books, as there are few manuscripts with secular contents that contain illustrations.<sup>4</sup> A few do so, such as the Madrid Skylitzes (Biblioteca Nacional, Vitr. 26–2), a chronicle whose famous illustrated version may have served a function in diplomatic relations between Byzantium and Norman Sicily; in addition, certain scientific and technical books on geometry, astronomy, medicine, botany, veterinary science, and siege warfare had illustrations where they were necessary or useful for understanding the text. Moreover, secular books were not copied in gold or on purple parchment, although these features were characteristic of some imperial documents. In the eleventh century, Eustathios Boilas begins the inventory of his books (in his will) with the paradigm of the luxury

<sup>1</sup> Two recent manuals on Greek palaeography are Crisci and Degni 2011 and Perria 2012.

<sup>2</sup> Cavallo 1982 and 2007; Oikonomides 1988. Holmes and Waring (2002) only scratch the surface of the problem of Byzantine literacy, and generally ignore the contributions of palaeography.

<sup>3</sup> For manuscripts as material evidence, see Hoffmann 1998; Géhin 2005. For introductions to the Greek book, see Hunger 1989; Irigoien 2001.

<sup>4</sup> Buonocore 1996; Lazaris 2010; Bernabò 2011.

book: a Gospel in gold ink with the portraits of the evangelists and a valuable binding, which he calls his “precious or rather my priceless treasure.”<sup>5</sup> At the other end of the spectrum, it is difficult to find manuscripts more modest than those used by monastic communities in southern Italy and the Balkans for the liturgy or the edification of the monks: these were produced on irregular parchment, not infrequently a palimpsest, by copyists with few notions of orthography. The image presented by the Greek manuscripts copied at the end of the Byzantine period in outlying ecclesiastical territories, from Cyprus and Palestine to the Peloponnese, Epirus, and Apulia, is not much better.

#### BOOK OWNERS

Contrary to what became customary in the nineteenth century, Byzantine books were not displayed on shelves (the projecting headcaps of the bindings also prevented manuscripts from being aligned vertically). They were kept in cabinets or cupboards, no doubt under lock and key. The photo of the post-Zola intellectual posing with his back to his library would have been impossible. Inside, the manuscripts lay flat on the cover, with metal bosses protecting the skin from friction and the contents written in ink on the cut side (the edge opposite the spine). The chest or *kibotion* was a piece of furniture to be placed in the work room, whose existence we know from various sources,<sup>6</sup> but there is also evidence that reading and study could take place in the open air, in porticos with benches like those which formed an essential part of libraries in antiquity. In the twelfth century, pupils at the school of the Holy Apostles would walk beneath the porticos carrying sheets of paper (*chartas*) under their arms and reading the texts aloud in order to learn them by heart.<sup>7</sup> Documents were also kept in *kibotia* and, of course, not all books were protected by wooden boards; they could be protected by sheets of parchment (a more fragile way) or in individual boxes.

Wilson defined the Byzantine book as a “commodity beyond the reach of the ordinary man,”<sup>8</sup> and indeed the prices of codices were high relative to basic necessities. A modest copy of the Psalter made by St. Neilos of Rossano in the tenth century cost one *nomisma*, and in 913/14 Arethas of Caesarea paid twenty-six *nomismata* for a copy of some ecclesiastical writers,<sup>9</sup> when one *nomisma* would buy a hundred kilos of wheat (eight

<sup>5</sup> Parani 2007: 169.

<sup>6</sup> See, for example, the one Konstantinos Akropolites had in his house and which he called *oikiskon*: Constantinides 1982: 141, 163–164.

<sup>7</sup> Flusin 2006: 76. <sup>8</sup> Wilson 1975: 3.

<sup>9</sup> Par. Gr. 451 consists of 403 folios of very high quality parchment, but of medium size, 242 × 188 mm. On the price of books in general, see Kravari 1991; Wilson 1975: 7–8; Cavallo 2007: 174–175.

*modioi thalassioi*) and fifteen *nomismata* would get a mule.<sup>10</sup> A luxury binding, with pearls and precious stones, could cost as much as 500 *nomismata*.<sup>11</sup> Bearing these facts in mind, we can understand why the inventories of personal libraries are limited to one or two dozen books. By the eleventh century, landowners such as Eustathios Boilas, Gregory Pakourianos, and Michael Attaleiates had larger libraries, and these in turn were surpassed by some monastic inventories, such as that of the monastery of St. John of Patmos with hundreds of volumes, even the same text in multiple copies. Needless to say, in this context the significance of a volume that was produced to be read and consulted changes: in its new home to which it has arrived as a gift or bequest, the book will not be read but considered as a piece of property, an asset, easily sold in time of need. This was the case with ms. Paris BNF Gr. 2934 (Demosthenes; preserved in the monastery of Sosandra) and the famous Oxford, Bodleian Library, Clarke 39 (Plato; preserved in St. John of Patmos). Eustathios of Thessalonike denounces the ease with which monks disposed of copies from their library, but there was also the opposite danger, that a book would remain “buried” in the library of a monastery. To prevent this risk, Isaac Komnenos, founder of the *Kosmosoteira* monastery, mentioned in his will that the book with poems, letters, and *ekphraseis* he had composed should be available to readers.<sup>12</sup>

In Byzantium there was no book trade as an activity independent of the book production process. The reason that books were not copied without prior commission was no doubt the initial investment of labor and material required; also the fact that such a trade in a largely demonetized society could be risky, at least until the fifteenth century, when Italian humanists were added as potential clients. The well-known problems that Byzantine intellectuals faced in obtaining parchment or paper had a similar basis: few scholars could accumulate writing material in sufficient quantity to avoid being dependent on the arrival of ships with Italian paper or the slaughter of spring lambs.<sup>13</sup> The cost of paper was half or less that of parchment. Italian paper (characterized by watermarks) rapidly prevailed in Byzantium (from the mid-fourteenth century it was in general use) and devastated the local mills through dumping, imposing its prices. Contrary to common belief, these were not necessarily lower than local prices.

Unlike in the west, in Byzantium it was not common for the copying of books to be organized and sped up by the dismemberment and distribution

<sup>10</sup> Oikonomides 2002: 591; Morrisson and Cheynet 2002: 823. <sup>11</sup> Cutler 2002: 581.

<sup>12</sup> Cavallo 2007: 141, 149. On the appreciation of books by their owners, see Cavallo 1981: 397–398; Grünbart 2004.

<sup>13</sup> On the difficulty of obtaining materials, see Wilson 1975: 2.

of the *antigraphon* or model among several copyists, enabling the production of pseudo-mechanized copies without a pre-arranged buyer.<sup>14</sup> It is also unthinkable that otherwise established and organized copying centers (all of them monasteries such as Stoudios since the ninth century, St. John Prodromos of Petra in the twelfth and fifteenth, and Hodegos in the fourteenth) would produce manuscripts for intermediary dealers who would then look for buyers. The colophons of these manuscripts never mention any transaction of this type: their sole protagonists are the scribe, the customer, and the recipient, who were not always the same person.

#### SCRIBES

Future generations may consider writing by hand a relic of the past, but only in the second half of the twentieth century did handwriting cease to form an essential component of elementary education. Before digital publishing (and more so before the printing press), being able to write in a neat and legible way was required of clerical work, but it was also a way for private individuals to earn a living and obtain copies of literary, technical, or religious works. If copying out manuscripts had been the prerogative of a professional class in the imperial or patriarchal administration, or of a select group of monks in each community,<sup>15</sup> we would be able to identify the hands of the same scribes over and over again, and they would more often have signed their work with a personal colophon, a poem, or in some other way to increase the value of the book. But in Byzantium only a small part of book production was done by professionals, and to an even lesser extent was it organized into *scriptoria*, a name perhaps applicable in Byzantium only to the Stoudios monastery in Constantinople.

Until the end of the eleventh century, copyists largely kept to the use of a calligraphic and legible library hand, which makes it more difficult to distinguish individuals, but from then onwards, especially after the recovery of Constantinople in 1261, there was a widespread revival of higher education. Non-professional copying seems to have become more frequent and some copyists chose a less legible type of writing, perhaps in haste to keep up with demand. Indeed, in Palaiologan Constantinople there flourished not only scribes who copied a text in order to own it themselves, but also those who helped out in copying a text in a study group because the teacher had asked for it, or who collaborated to copy a book that was available only temporarily and had to be copied quickly. In that period there were dozens, or even hundreds, of low-cost scribes lacking a professional background and with irregular, even hesitant, handwriting, but we owe to them many of the Palaiologan copies we have. It is not rare

<sup>14</sup> Canart 1998. <sup>15</sup> On the social groups to which scribes belonged, see Cutler 1981.

to find volumes that collected the work of ten to twenty scribes, reflecting all levels of expertise and styles, from the most traditional to the most common, which was coordinated to obtain a volume with, say, all the commentators on Aristotle (Laur. Plut. 58.1) or a complete mathematical and astronomical corpus (Vat. Gr. 191).<sup>16</sup> They collaborated to create monumental books that aspired to reflect the totality and, no doubt, the immortality of the authors they collected.

#### WRITING IN SCHOOL

If the book has value as a symbol of social and economic class and is the prerogative of the moneyed classes or ecclesiastical bodies,<sup>17</sup> it is also the starting point for any thinking that arises from the solitary exercise of reading. Training for this activity began, of course, at school, and several manuscripts of ancient literature still show the signs of their frequent use by students seeking to master more advanced registers of Greek.<sup>18</sup> At the elementary stage, pupils would not necessarily own a book or even have one at their disposal: memorization played a key role in learning (some Byzantines boasted of having learnt whole books by heart),<sup>19</sup> and ephemeral materials such as wax tablets were also used. Access to texts must have been necessary only for more advanced teaching. In the famous miniature of the Madrid Skylitzes depicting a philosophy class (fol. 134), the students share books on their desks and stand up holding them to recite the lesson. Small and medium-sized miscellanies, with basic texts of grammar, rhetoric, and vocabulary, were likely the student's first (or only) book.<sup>20</sup> Scarcity of resources and poor materials may together be responsible for our having far fewer examples of this type of book from the Macedonian and Komnenian periods than the Palaiologan,<sup>21</sup> but this cannot be the only explanation for the following rule in the transmission of texts: texts chosen to complete the learning of language through miscellanies come in ever-decreasing sizes and ever-greater internal variety over time. Macedonian codices were conceived as collections of the corpora of ancient authors in a single volume (or in two or three volumes, when they would not fit in one, as with Plato and Plutarch); but we do not know if they were just copies of manuscripts from late antiquity or an innovative way of preserving a heritage that in the ninth and tenth centuries was safeguarded in stages (prose before poetry, philosophy before history). Only from the

<sup>16</sup> Bianconi 2004.    <sup>17</sup> Parani 2007: 174; Holmes 2010: 138.

<sup>18</sup> On school books in the Middle Ages, see del Corso and Pecere 2010.    <sup>19</sup> Cavallo 1981: 400.

<sup>20</sup> On miscellaneous manuscripts, see Ronconi 2007.

<sup>21</sup> A tenth-century codex fitting this profile is Laur. Plut. 59.15, with ancient rhetorical works chosen as models for different types of composition.

generations of Photios and Leo VI onward was the effort significant enough for libraries to be recognizable.

Unfortunately, obtaining copies of these *opera omnia* of classical authors was out of reach for most, so that the majority of manuscripts preserve only selections of these corpora. Increasingly, special miscellanies of authors of a genre were created, even mixing ancient models with their Byzantine imitators, as is the case in various thirteenth-century miscellany manuscripts. Of the seven pieces by each tragedian and the plays of Aristophanes, only three were chosen; from ancient oratory only a few speeches by different authors (together with the ubiquitous *Characteres epistolici*, epistolary model exercises attributed to Libanios); and some dialogues of Plato. So, at the end of Byzantium, we find unprecedented collections including sections of works (such as book two of Thucydides, book one of the *Cyropaideia*) and isolated pieces such as the *Electra*, *Seven against Thebes*, *Plutus*, Demosthenes' *De corona*, or the *Panathenaicus* of Aelius Aristeides. Not all miscellanies, however, had a classicist profile. When a Byzantine reader decided to collect his favourite texts into a volume, it was likely to include John of Damascus, Anastasios of Sinai, Basil of Caesarea, Maximos the Confessor, and many short and anonymous texts, especially poems.<sup>22</sup>

At the next level of training, students had to deal with Aristotelian logic (preserved in hundreds of copies, and even recommended by Theodore the Stoudite to his monks), the *Elements* of Euclid, and some basic works of geometry and astronomy such as Nikomachos of Gerasa, Heron, and Kleomedes. Acquiring culture meant internalizing this knowledge, and to that end students would read widely and take notes from these readings: the *Bibliotheke* of Photios is, in some respects, the product of such an activity, albeit carried out at a mature phase and on a vast scale. But other scholars such as Nikephoros Gregoras refrained from literary criticism and only copied out sentences, paragraphs, or curious words from their readings; others, such as Gregory of Cyprus, copied entire works of Aristotle and a wide selection of ancient oratory, thus at least saving the cost of a scribe. Based on this initial core of written materials that were learned by heart (as shown by the absence of indexes in many of them), it was the personality, skill, and ability of each student that then marked his progress.<sup>23</sup>

#### THE MATERIAL CONDITIONS OF INTELLECTUAL WORK

Unfortunately, the material evidence for intellectual work is limited to its final product, manuscript books, as the “working papers” of Byzantine

<sup>22</sup> See the case of the *Kephalaia* of Chariton of Hodegos (Par. Gr. 1630, fourteenth century): Pérez Martín 2011.

<sup>23</sup> Wilson 1996.

authors have been lost in almost all cases where they did not originally take the form of bound notebooks (in inventories, unbound books are mentioned as *tetradia*; in some cases, the traces left in manuscripts by their use reveals that they remained unbound for a long time).<sup>24</sup> The *translatio studiorum*, the transfer to the west of much of the Greek heritage and its organization in libraries, as well as the long night of Greek secular culture in the eastern Mediterranean under Ottoman rule, explain this loss; the same applies to the bad-quality or fragmentary copies of texts that did not survive the creation of organized, modern libraries, since their low quality prevented them from being catalogued and preserved. It was not unusual for a single annotated sheet to end up bound into a volume among whose pages it is found. For example, in Par. Gr. 2396, containing the commentary of Theon of Alexandria on Ptolemy's *Mathematike syntaxis*, Nikephoros Gregoras needed a scrap of paper to complete the astronomical calculations begun in the margin of fol. 29. Now this piece of paper, in his own hand, is bound between fols. 28 and 29. Flyleaves, in addition to being fragments of other codices, could be recycled drafts of documents, letters, or short literary compositions;<sup>25</sup> they were also a favourite place for notes, personal information, lists of goods, or reminders of basic knowledge. These are the rather pitiful ways in which the working materials of the Byzantine scholars have survived. The information they provide about how composition took place in material terms is in general poorer than that given in the works themselves, which clearly show their origins in *schede* or *hypomnematismoi* ("notes and memoranda"), such as we find in the *Bibliotheke* of Photios, the *Semeioseis gnomikai* (*Sententious Notes*) of Theodore Metochites, and some minor works by Michael Psellos which are little more than reading or lecture notes.

The margins of manuscripts owned by scholars contain a more direct and simple record of intellectual work, even if they were only the first steps of reflections that were later to become independent works. John Pediasimos decided to compose his manual of geometry (a popular version of Heron) after discussing the *Elements* of Euclid in the margin of Laur. Plut. 28.2.<sup>26</sup> In the margins, a Byzantine author may talk to or argue with the ancient writer who normally occupies the central text.<sup>27</sup> He occasionally corrects the text or adds variants from a copy borrowed from another colleague. He may highlight information that interests him, recompile it elsewhere, explain a complicated theorem by applying it to a concrete problem, and gather comments on passages through a complex system of

<sup>24</sup> As in a famous copy of Maximus of Tyre and Albinus, Par. Gr. 1962: Whittaker 1974.

<sup>25</sup> Pérez Martín 2013b. <sup>26</sup> Pérez Martín 2010.

<sup>27</sup> Papaioannou (2012a: 298) has called this omnipresence of ancient writers "the atavistic structure of Byzantine book culture."

reference marks or by using different-coloured ink; alternately, he revises a text, correcting its problems, completing or reorganizing it. For example, Maximus Planudes completely revised many texts that interested him (the *Anthologia Palatina*, Plutarch's *Moralia*); Gregoras edited Synesios' *On Dreams*; and Isaac Argyros reconstructed the lost chapter 2.14 of Ptolemy's *Harmonics*. We still have their autographs of these and other works. When a Byzantine author decided to copy a long text that he or his disciples considered remarkable, the text could take on a life of its own, separate from what the ancient author intended, and find a place in other manuscripts, thus ensuring its conservation. For example, John Pediasimos' short treatise on doubling the cube was originally a note on Aristotle's *Analytica priora* that was finally copied several times as an independent text.<sup>28</sup> Argyros' *Instructions for Making a Map of the Inhabited World Proportional to its Place on the Globe* arose from a reading of Ptolemy's *Geography* 1.24; we still have the autograph in Argyros' own copy of the *Geography* (Vat. Gr. 176, fols. 26v–27r), but his *Instructions* circulated separately from Ptolemy's text.<sup>29</sup>

#### SCIENTIFIC AND PROFESSIONAL BOOKS

The appearance and contents of some manuscripts point to their use by professionals in their studies – or in their trunks, when they earned a living by traveling around.<sup>30</sup> Reference books were indispensable for judges,<sup>31</sup> as were pharmacopoeias for physicians,<sup>32</sup> lists of the positions of stars and planets for astronomers, and treatises on *Geoponika* for aristocratic landowners.<sup>33</sup> We have no evidence of manuals used by architects or engineers,<sup>34</sup> or by navigators, professions that appear to have been learnt from practical experience rather than books. The case of the last profession is significant, given the economic importance of commercial activity. Byzantium preserved many ancient geographical works, but did not produce any independent scientific literature of its own in this field.<sup>35</sup> Thus, the possession of a full-blown library seems to have been a feature of the leisure, devotion, or pastime of the man of letters rather than of the expert in a profession.

In the fields of knowledge mentioned above, the manuscript evidence may hide or distort the real picture of the use of books. The existence of hundreds of codices of Hippocratic and Galenic medicine, Ptolemaic astronomy, and Euclidean geometry cannot be taken at face value as evidence of a high level of scientific practice in Byzantium. A cursory

<sup>28</sup> Pérez Martín 2010: 115. <sup>29</sup> Laue and Makris 2002. <sup>30</sup> Pérez Martín 2007.

<sup>31</sup> Gastgeber 2010. <sup>32</sup> Degni 2012. <sup>33</sup> Lefort 2002: 297–299. <sup>34</sup> Ousterhout 2008.

<sup>35</sup> Koder 1991: 62.



examination of these manuscripts is enough to establish that they were often not annotated and therefore were perhaps read but were probably not used for practical purposes. Those who used Ptolemy's *Tables* to calculate an eclipse would note the date of their calculations, just as a physician who studied Galen's *De alimentorum facultatibus* in depth would "enhance" the work with local variations or his own experience. As far as geometry was concerned, it formed part of the school curriculum, and the most elementary texts had a clear application in the measurement of land for tax purposes (geodesy).

This dichotomy of practice versus theory that characterized Greek higher learning throughout its history becomes more acute and problematic in areas of study that were also professional vocations. It would be reductive to classify scientific manuscripts into library or reference copies on the one hand and copies for practical, everyday use on the other. It would likewise be a mistake to draw too strict a distinction between copies of ancient authors with pretensions to be complete, in large format, with wide margins and careful writing, and modest copies, worn through use, of secondary materials born from the debasement and fragmentation of the ancient heritage, from incomprehensible translations from Arabic, personal experience in dealing with diseases, or observing the stars. Although both categories are justifiable, a good part of our scientific manuscripts would not fall clearly into one group. Especially in the Macedonian era, it is not uncommon to find codices that dignify through their elegant appearance miscellanies of anonymous pseudo-scientific texts.<sup>36</sup>

#### A STORY OF LOSS AND RECOVERY

The scholar who frequents famous libraries may be inspired by the beauty of the buildings and reading rooms to reflect on the passage of time: What occasioned the conservation of all that we value today, and what led to the loss of books documented in the past? Unfortunately, the declared aim of a book to preserve its contents from the "abyss of oblivion" was often difficult to achieve.<sup>37</sup>

Common sense indicates that what was most likely to survive was anything considered valuable enough to enjoy high standards of protection: kept away from inexperienced or potentially harmful hands, in suitable binding, and stored in good conditions, away from dampness and light. Indeed, it was enough for one link in the chain to break for the text to be lost (if for

<sup>36</sup> Marc. Gr. 299 is the oldest known compendium of alchemy. The codex, of large size (305/10 × 240 mm), was copied at the beginning of the tenth century in "bouletée" writing, on good-quality parchment. Laur. Plut. 28.34 is an elegant calligraphic copy from the mid eleventh century containing astrological works.

<sup>37</sup> Grünbart 2004: 115; Cavallo 2007: 173–191.

generations a book found no reader, or its guardians did not appreciate its value). Yet those that do survive suggest that, from the ninth century onward, there were to some extent two complementary processes of survival: in the late thirteenth century some of the works that Photios had been able to read were no longer available (e.g. Ktesias, Eunapios, or Nikomachos' *Theologoumena arithmeticae*); but in the ninth century there is no trace of the circulation of Xenophon's *Hellenika* or Diophantos, which were certainly read and studied in the Palaiologan period.

In the history of the conservation of Byzantine books that begins with the cultural recovery of the late eighth century<sup>38</sup> and is manifested in the copying of manuscripts on parchment – still sometimes in capitals but soon in a minuscule descended from the cursive of late antiquity – the definitive watershed was not 1453, but 1204. The fall of the city to the Turks was a death foretold that had convinced the owners of large libraries such as Manuel Chrysoloras and Bessarion to transfer them to Italy, where they knew that Greek books would be appreciated and safer. But in 1204 Constantinople was sacked and burned without any prior warning, and a considerable part of the libraries, such as that of the high official and historian Niketas Choniates, had not yet been removed to safety. We know of works of art that were moved out of the city, but manuscripts seem to have been the most vulnerable victims of the fire and looting, which destroyed forever texts that had probably been read since the time of Photios. Perhaps the frequent use of paper in the copying of books from the eleventh century onwards was an important factor in the wholesale destruction. This is evident in the considerable drop in the number of books from the Komnenian period, which is inexplicable given the high quality and quantity of literary composition and the high level of scholarship in the twelfth century.

In any case, those grim dates of 1204 and 1453 also marked the beginning of a rebirth of intellectual activity, spurred on by the same urgency to save what could be saved. The Macedonian, Komnenian, and Palaiologan periods were eras of cultural splendor that had a different relationship with books; their protagonists had a different way of working and different objectives, in part due to the material conditions. The written evidence matches what the texts themselves suggest, namely that the boundaries of knowledge reached their greatest extent at the end of the Macedonian era. But Palaiologan manuscripts leave no doubt that it was then, in that final stage of Byzantium, when a greater number of people had access to higher education. Copying books became a parallel and complementary activity to literary and intellectual production; it reached a high level of refinement and professionalism, and proclaimed its love for the Greek past.

<sup>38</sup> Mango 1975.