Marilena Maniaci

The Medieval Codex as a Complex Container: The Greek and Latin Traditions

1 Introduction

The codex – a brilliantly simple artefact consisting of a sequence of grouped rectangular surfaces, superposed and usually sewn together[1] – appears in the Greek and Latin manuscript traditions from the 1st century BCE and becomes dominant from the 4th century CE onwards. The success of the 'page-turning' or 'page-flipping' book marks a major turning point in the history of text transmission and reception – the outcome of various practical, economic and social developments whose relative importance has not been definitively evaluated.[2]

Whatever the reasons for its adoption, the codex embodies a number of new and advantageous features that have ensured its success over two millennia, and not only in the West. In particular, scholars have stressed its *capacity* – the quantity of text that it can contain – and the fact that this can be expanded, whereas the capacity of a Greek or Latin book roll is limited by its structure and by the conventions concerning its maximum length.[3] The increased capacity of the codex also made it possible to collect within a single book texts whose length would

1 The term 'codex' and other basic related notions have been variously defined in attempts to distinguish between the physical and textual characteristics of this format and other kinds of paginated writing media. The most recent discussion, together with a new proposal, may be found in Andrist / Canart / Maniaci 2013, 45–48.
2 The stress placed by Guglielmo Cavallo (see for example Cavallo 1989 and 1994) on the 'sociological connection' between the early Christians and the success of the codex has recently been convincingly questioned by Gamble 1995 and Crisci 2008; the latter bases the enquiry on a survey of early Christian books in roll and codex form.
3 The fragmentary state of most extant papyri makes it impossible to establish the number of scrolls that contain more than one work by the same author; only isolated examples survive (see Johnson 2004 and 2009: 264, 277 n. 6). There is no instance of a single roll comprising several works by different authors or of different literary genres.

require more than one roll and to create anthologies of works of various authors and subjects.[4]

This possibility of compiling several texts in the same manuscript – and of modifying their number and order in the course of time – is one of the most singular developments in the Greek and Latin manuscript traditions, one that makes the codex clearly different from the modern printed book, whose unitary structure is defined a priori and not subject to changes.[5]

Nevertheless, the emergence and spread of the 'multiple-text manuscript'[6] (MTM) cannot be reduced to a simple matter of space. Apart from its potentially increased capacity, the codex – a set of separate surfaces, usually grouped in a sequence of independent quires – also differs from the book roll in terms of its *modular structure*,[7] which made it possible to modify the original configuration by adding or subtracting leaves or quires or changing their order. The modularity of the medieval codex and its potential for development means that the evocative notion of the 'one-volume library' covers various relationships between the contents of the codices and the physical units of which they are composed. Codicologists have only recently begun to study these relationships. Most of the extant catalogues of Greek and Latin manuscripts, ancient and recent, describe MTMs – or 'miscellaneous manuscripts' as they are usually but ambiguously called – in a partial, unsystematic and often distorted way.[8]

Only a few of the MTMs are in fact structurally homogeneous books, or 'multiple-text monoblock codices',[9] consisting of a single 'production unit'.[10] Many

---

4 The state of the surviving evidence makes it impossible to establish whether this revolutionary opportunity was already perceived and exploited at the time of the 'birth' of the codex.

5 In contrast with the opinion of (among others) O'Donnell 1996, 'transparency of purpose and lucidity of organization' are not intrinsic features of the early printed book, which was far from being the container of a single text reproduced in a number of identical copies to which we are accustomed today.

6 The adjective corresponds to the Italian 'pluritestuale' (Maniaci 2004), which refers to any codex containing more than one separate text, regardless of its physical structure. The term is defined and used in the same sense by Nyström 2009, 47–48.

7 This feature is surprisingly ignored by scholars who have dealt with the origin of the codex.

8 Relevant contributions have been offered by Gumbert 2004 and 2010; see also Maniaci 2004. Other extensively commented bibliographical references are in Andrist / Canart / Maniaci 2013, exp. 11–44. As in other cases, terminological confusion reflects conceptual uncertainty, which leads to unsatisfactory linguistic contortions to make the necessary distinctions.

9 'Codici *pluritestuali monoblocco*' (Maniaci 2004, 88).

10 According to Andrist / Canart / Maniaci 2013, 59: 'une *Unité de production* (UniProd) se définit comme l'ensemble des codex ou des parties de codex qui sont le résultat d'un même acte de production. L'acte de production est l'ensemble des opérations, délimitées dans le temps et dans

other codices are the product of bringing together under a single cover existing units and/or others created *ad hoc*, which might have occurred at different times, in various ways and for different reasons. These 'multiple-text multiblock codices'[11] may be assembled according to a principle ('organized') or merely for convenience ('factitious'). It is important to note that modularity is not exclusive to MTMs: it may also be a feature of volumes that appear to have homogeneous content (so-called 'single-text' codices) but whose structure reflects some commonality among groups of quires and textual sub-units.[12] It is therefore necessary to distinguish between 'single-text monoblock codices', which have a uniform structure, and 'single-text multiblock codices', which are marked by internal breaks indicated by textual and physical changes.[13] In reality, manuscripts are often more complicated: for example the multiple-text monoblock codices may have been originally conceived as such, or may stem from the transcription of a multiple-block model of which they reflect the structure.[14] Alternatively, a multiple-text multiblock volume may have been obtained by joining several contemporary units designed and produced as part of the same book, or it may also derive from a later combination or several successive combinations of existing units that may themselves consist of multiple blocks, or it may result from a mix of existing units and other units created for the purpose.

The lack of adequate catalogues – ones that are sufficiently precise in listing the contents and particularly in describing the complex structure of the codices[15] – hampers the compilation of an accurate typology of the Greek and Latin MTM that takes into account times and places, cultural contexts, contents, language, functions and uses of the books. The few statistics that I am about to present are

---

l'espace, qui créent un ou plusieurs objets ou partie d'objet, dans notre cas un ou plusieurs codex ou parties de codex. Une *Unité de circulation* (UniCirc) se définit comme l'ensemble des éléments qui constituent un codex à un moment déterminé. Elle peut équivaloir à une UniProd ou / et être le résultat d'une transformation.' On the basis of this definition, I would now prefer to speak of 'codici *pluritestuali monounitari*', reasoning in terms of 'production units' instead of 'blocks'.

11 'Codici *pluritestuali pluriblocco*', or – as I would rather call them now, '*pluritestuali pluriunitari*' (Maniaci 2004, 88).

12 This occurs in several Greek and Latin biblical codices (for the latter see Bischoff 1994; Maniaci 2000), in various exemplars of Dante's *Comedy* (see Boschi Rotiroti 2004) and in other books containing internally structured texts.

13 Respectively 'codici *monotestuali monoblocco*' and 'codici *monotestuali pluriblocco*': Maniaci 2004, 87–88.

14 Ronconi 2007 speaks (14) of 'miscellanee primarie' and 'miscellanee secondarie', though his definition is in my opinion too schematic in focusing on content and underestimates the role played by the structure of the codex in the distinction between the two categories.

15 The limits of the extant catalogues in this respect are well summarized by Andrist 2006 and most recently by Gumbert 2010.

based on data from previous research. My purposes are simply to provide a rough picture of the spread of MTMs in the Byzantine and Latin Middle Ages and to highlight trends and differences that confirm the interest of a comparative approach and call for further comparisons with other manuscript cultures.

The scarcity and fragmentary nature of surviving evidence prevents us from reconstructing the genesis and spread of 'one-volume libraries' between late antiquity and the Early Middle Ages.[16] In seeking an overall assessment I prefer to focus on periods that are better documented.

2 The Byzantine tradition

With regard to Byzantine production between the 8th and 16th centuries,[17] a database compiled from all the available catalogues[18] of the Greek manuscripts in the Vatican Library reveals that 732 volumes out of 1,435 contain a single text or a collection of works by the same author[19] and that 703 are MTMs collecting texts of various kinds by different authors. In other words, the proportion of one-volume libraries in the sample is just under 50%.[20]

The group of codices containing a single text is easier to characterize because they are fairly evenly divided between sacred books – 380 – and secular books – 352. The distribution by centuries[21] (see Tab. 1) shows an initial prevalence of religious content in the form of Bibles and commentaries, liturgy, homilies, theological

---

16 The well-known study by Petrucci 1986 establishes a direct connection between the invention of the so-called 'codice miscellaneo' (a library of texts, regardless of physical structure) and the new reading and learning needs of late antique Christian circles, and follows its spread in the Latin world until the Early Middle Ages, mainly in the form of a container for apparently unrelated texts.

17 Byzantine handwritten books, unlike Latin ones, were still regularly produced, at least until the end of the 16th century.

18 Ancient and more recent catalogues of Greek manuscripts list the texts they transmit unevenly and are not usually clear in describing the relationship between content and structure (see Maniaci 2010).

19 This definition must be understood in a broad sense in that many books with a single main text also contain prefatory material and short additions that are not identified in the catalogues. If a strict criterion is applied, the number of single-text manuscripts is significantly reduced.

20 Unless, of course, what is now a manuscript is actually only half of a composite that had been dismantled later. Work from catalogues allows to outline a general overview, but inevitably leaves zones of doubt around every statement.

21 In this and in the following tables, the figure for the 8th century is obviously not significant.

treatises and hagiographies, followed from the 13th century onwards by an increased presence of literary works of history, poetry, novel and philosophy and technical works on grammar, philology, lexicography, astronomy, medicine, mathematics, law etc.

	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	*Total*
Sacred	1	11	43	117	44	31	59	23	51	*380*
Secular		4	11	13	12	40	64	112	96	*352*
Total	*1*	*15*	*54*	*130*	*56*	*71*	*123*	*135*	*147*	*732*

Tab. 1: Byzantine single-text codices from a sample of 1,435 units with sacred or secular content.

The reversal is part of a general increase in the production of secular books in the late Byzantine period.[22] This trend is accompanied by an overall decrease in the size of the manuscripts, most evident in the volumes containing secular works, where it coincides with and is emphasized by the growing use of paper, paper sheets being smaller (in the most widely used format) and strictly standardized.

Secular manuscripts are also thinner than sacred ones in that they have a lower average number of folios; the difference increases after the 12th century and particularly in the 15th century. This thinning tendency, which does not correspond to increased page density,[23] may be related to a change in literary taste that led to the composition of shorter works; the issue requires further analysis. In the context of a general reduction in book size, the average thickness of sacred books remains more or less stable over time,[24] reflecting more conservative attitudes to textual and book-making choices[25] (see Tab. 2)

---

22 This general impression needs to be explained through further research. To date, no systematic bibliometric survey has been undertaken to determine the popularity of different authors and text types during the Byzantine millennium.

23 Since the dimensions of the written area are not shown in the catalogues, page density has been estimated indirectly in terms of the ratio between the height of the page and the number of written lines, which does not decrease significantly.

24 The size is conventionally expressed through the semiperimeter of the codex (H[eight] + W[idth]) and the thickness through the number of folios, as stated in the catalogues.

25 The most obvious indicator of the conservative nature of sacred books is the prolonged use of parchment as a writing support, compared with the early spread of paper in the transcription of secular books (see Prato 1984, 74–83).

		VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	*Avge.*
Sacred	Size (H+W)	630.00	573.09	559.09	575.85	504.32	520.16	531.59	460.04	503.16	539.70
	N° of folios	250.00	274.82	259.42	267.61	239.09	264.39	265.19	230.30	218.90	252.20
Secular	Size (H+W)	/	539.25	543.00	444.38	555.08	488.18	474.72	417.75	491.11	494.18
	N° of folios	/	218.25	252.45	197.77	266.83	225.73	219.58	170.25	216.96	220.98

Tab. 2: Byzantine single-text codices from a sample of 1,435 units: average size and thickness according to contents.

3 The Latin tradition

In the Latin Middle Ages – the 8th to the 15th centuries – single-text codices seem to have been more common than one-volume libraries, whose spread appears to be much more limited. This emerges from the analysis of two large but heterogeneous samples, one of 1,731 codices produced mainly in northern Europe,[26] and the other of 3,466 dated volumes of various origin.[27] In the first sample 75% of the volumes – 1,294 – contain a single text;[28] in the second they account for 85% – 2,931.[29]

The difference from the Greek context must be assessed with caution because it is probably influenced by the uneven nature of the data and the criteria for collection; nevertheless it seems too large to be discarded as purely accidental. The distribution of single-text codices according to content also differs from Greek production, even though the evidence of the two Latin samples is not consistent in this sense: in the northern European dataset, religious literature accounts for 70% of the total, whereas 62% of dated manuscripts contain secular texts (see Tab. 3 and 4). The relationship between the contents of a book and the presence of a date may explain this apparent inconsistency, but this question also requires further study.

	VIII	IX	X	XI	XII	XIII	XIV	XV	*Total*
Sacred	2	23	4	17	96	239	134	400	*915*
Secular	2	8	1	/	18	51	85	166	*331*
Unspecified	1	17	/	1	29	/	/	/	*48*
Total	5	48	5	18	143	290	219	566	*1,294*

Tab. 3: Latin single-text codices from a northern European sample of 1,731 units with sacred or secular contents.

---

26 It is the sample collected and used in Muzerelle / Ornato 2004, 45–46. I am grateful to the authors for the data that they have generously supplied to me.

27 I used the online database coordinated by Marco Palma: *Archivio dei manoscritti in scrittura latina datati per anno fino al 1500*: <http://www.let.unicas.it/dida/links/didattica/palma/workinpr/winp_03.htm> (last accessed 23/07/2016).

28 The same value is given by Cartelli / Palma / Ruggiero 2004, 255 based on a sample of 1,457 dated codices described in the *Manoscritti datati d'Italia* (*ibid.*, 247–248).

29 The difference between the two figures may partly depend on the level of detail of the descriptions.

	X	XI	XII	XIII	XIV	XV	*Total*
Sacred	1	5	10	35	131	880	*1,062*
Secular			2	43	213	1,545	*1,803*
Unspecified				4	7	55	*66*
Total	*1*	*5*	*12*	*82*	*351*	*2,480*	*2,931*

Tab. 4: Latin single-text codices from a sample of 3,466 dated units with sacred or secular contents.

In the transition from the high to the late Middle Ages, Latin single-text codices, unlike Greek ones, show a significant increase in the average number of folios, at least in the northern European sample; the information is unfortunately not available for the other sample. This tendency can probably be explained as proposed by Denis Muzerelle and Ezio Ornato by the production of long and very long texts required for university teaching during the 13th and 14th centuries.[30] Most secular books produced after the 12th century show a distinctly larger size than contemporary sacred books (see Tab. 5).

		VIII	IX	X	XI	XII	XIII	XIV	XV	*Total*
Sacred	Size (H+W)	613.50	555.60	680.00	492.82	491.32	467.38	430.52	373.95	*513.14*
	N° of folios	201.00	14.39	159.75	231.00	156.14	267.08	212.84	191.49	*179.21*
Secular	Size (H+W)	733.50	487.88	353.00	/	444.17	511.53	540.03	464.80	*504.99*
	N° of folios	132.50	90.25	23.00	/	124.33	201.22	225.32	191.05	*141.10*

Tab. 5: Latin single-text codices from a northern European sample of 1,731 units: average size and thickness according to contents.

---

30 Muzerelle / Ornato 2004, 74.

4 The two traditions compared

Although necessarily limited to a few general features, the comparison between Greek and Latin single-text codices provides a glimpse into different social and cultural dynamics that cannot be discussed here; in any case, the available data are inadequate for thorough investigation.[31]

As has been said, the analysis of MTMs is even more limited by their structural diversity. The descriptions in most catalogues do not enable us to discern the sequences of texts copied without material interruptions on a homogeneous medium and those resulting from the juxtaposition of independent units, whether for a specific purpose or for reasons of convenience.[32]

The Greek sample does make it possible to single out 434 definite or probable multiple-text monoblock codices, about 30% of the sample, that were produced in a single working session by one or more scribes.[33] For the remaining 269 codices, the descriptions do not allow us to identify definite or possible multiblock volumes, let alone distinguish between organized and factitious examples. This group will therefore be excluded from the present analysis.

Although the number of texts joined in a single volume in the Byzantine context – which we could call an 'index of multi-textuality' – can occasionally be as high as 60 units, 30% of all multiple-text (presumably) monoblock manuscripts bring together only two works by different authors, and only 15% of the sample contain more than 10 texts (see Tab. 6).

As I have stated elsewhere,[34] a significant increase in MTMs occurs only in the late Byzantine period, particularly in the 13th and 14th centuries. In these, a main text usually located at the beginning of the book is often followed by a series of short or very short texts. The latter together represent a small minority, but their number seems to grow significantly in the Late Byzantine centuries (see Tab. 7).

---

31 The quantitative estimate should be linked to a qualitative analysis focused on text types, the functions of the books and supposed and actual readers.

32 This important limitation inevitably affects the results of most of the contributions collected in Crisci / Pecere 2004, especially those based on the statistical evaluation of large samples (see Cartelli / Palma / Ruggiero 2004; Maniaci 2004; Muzerelle / Ornato 2004).

33 Bianconi 2004, 315 speaks evocatively of 'miscellanee di mani' to refer to manuscripts written in collaboration by several scribes.

34 Maniaci 2004, 100.

	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	*Total*
2		4	8	5	3	26	29	36	18	*129*
3-4			6	20	4	20	27	28	26	*131*
5-10	1	1	2	3	3	32	41	16	12	*111*
11–20		1	3	4	2	7	19	1	7	*44*
21–30				1		1	7	4	1	*14*
35–56				1		1	3			*5*
Total	*1*	*6*	*19*	*34*	*12*	*87*	*126*	*85*	*64*	*434*

Tab. 6: Greek multiple-text monoblock manuscripts from a sample of 1,435 units: index of multi-textuality.

	Average number of texts	**% after main text**	**% texts <5 pages**
IX–XII	4.83	62.12	1.93
XIII–XIV	6.81	61.36	6.22
XV–XVI	4.86	49.32	2.80
Total	*5.73*	*56.92*	*4.19*

Tab. 7: Greek multiple-text monoblock codices from a sample of 1,435 units: average number and length of associated texts.

With regard to content, Greek multiple-text monoblock books tend to aggregate texts belonging to the same religious or secular genre.[35]

Secular contents prevail in the late Byzantine period, as shown in Tab. 8: the figures refer to the first text in each manuscript, which is usually the longest.

	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	*Total*
Sacred	1	6	9	27	8	32	39	15	17	*154*
Secular		1	10	6	4	55	87	70	47	*280*
Total	*1*	*7*	*19*	*33*	*12*	*87*	*126*	*85*	*64*	*434*

Tab. 8: Greek multiple-text monoblock codices from a sample of 1,435 units: exclusively or predominantly sacred or secular contents.

---

35 The percentage of codices containing sacred and secular texts is difficult to evaluate exactly with the insufficient information provided by catalogues, especially with regard to minor texts.

A further observation concerns the thickness of single-text and MTMs (see Tab. 9). Against the background of a general reduction in the number of folios during the late Byzantine period,[36] only the volumes containing a large number of texts tend to be thicker than the average for the century. In other words, in the Byzantine context variety of content does not lead to the production of thick books.

	VIII	IX	X	XI	XII	XIII	X	XV	XVI	Avge.
1	250.00	259.73	258.00	260.62	245.04	242.61	241.46	180.48	217.63	230.82
2		320.75	198.00	206.75	302.33	244.38	234.17	178.11	152.06	210.12
3–4			254.00	250.75	333.75	252.30	243.67	148.39	238.50	227.90
5–10	494.00	338.00	305.50	301.33	206.67	216.09	235.85	181.31	220.58	225.80
11–20		291.00	304.67	324.75	280.00	260.71	267.63	204.00	235.57	268.80
21–30				310.00		373.00	297.00	237.25	101.00	272.29
35–56				292.00		417.00	332.00			341.00
Avge.	*372.00*	*302.37*	*264.03*	*278.03*	*273.56*	*286.58*	*264.54*	*188.26*	*194.22*	*253.82*

Tab. 9: Greek single-text and multiple-text monoblock codices from a sample of 1,435 units: average no. of folios according to the index of multi-textuality.

Finally, it is interesting to observe that throughout the Middle Ages multiple-text monoblock codices were always significantly smaller than those containing a single text (see Tab. 10). The difference is independent of the number of associated texts and continues into later centuries, when the average size of the manuscripts decreased. The general trend, at least in the case of monoblock volumes, was for functional needs to outweigh aesthetic concerns, resulting in books of generally modest appearance. This hypothesis requires further investigation, however.

	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	*Avge.*
Single-text	630.00	564.07	555.81	562.70	515.20	502.14	502.00	424.96	495.29	*503.66*
Multi-text monoblock	414.00	522.17	443.37	525.76	437.67	428.52	406.29	397.04	450.52	*428.65*
Avge.	*522.00*	*543.12*	*499.59*	*544.23*	*476.44*	*465.33*	*454.15*	*411.00*	*472.91*	*466.16*

Tab. 10: Greek single-text and multiple-text-monoblock codices from a sample of 1,435 units: size (H.+W.).

---

36 The trend is independent of the material used, parchment or paper.

The data for Latin manuscripts are, unfortunately, not directly comparable: the number of texts in each codex is specified only for the northern European sample and it does not allow to identify monoblock volumes; hence it is only possible to distinguish between single-text codices and MTMs. Although comparison is affected by this unquantifiable distortion, it is worth pointing out some clear differences between the two categories and drawing attention to some features of Latin MTMs.

First, with regard to the index of multi-textuality, analysis of the Latin sample shows that only 13% of volumes consist of more than 10 texts, belonging to a single or to multiple units (see Tab. 11).

	VIII	IX	X	XI	XII	XIII	XIV	XV	*Total*
2		15	1	3	24	9	5	12	*69*
3–4	1	13	2	4	26	27	19	54	*146*
5–10		10	1	4	36	33	14	66	*164*
11–20	1	2	1	1	11	9	2	23	*50*
21–31					1	3	3	1	*8*
Total	*2*	*40*	*5*	*12*	*98*	*81*	*43*	*156*	*437*

Tab. 11: Latin MTMs – monoblock and multiblock – from a sample of 1,731 northern European manuscripts: index of multi-textuality.

Even among Latin manuscripts, the index of multi-textuality rises over time; conversely, the length of main texts increases considerably, in contrast to Byzantine codices, at the expense of shorter accompanying texts (see Tab. 12).[37]

	Average number of texts	**% pages for main text**
VIII–XI	4.66	60.44
XII–XIV	6.27	73.10
XV	6.69	82.85
Total	*6.20*	*74.90*

Tab.: 12: Latin MTMs – monoblock and multiblock – from a sample of 1,731 northern European manuscripts: average number and length of associated texts.

---

37 A tendency to prefer aggregations of texts of the same kind is reflected in the collected data, but descriptions of contents are too vague to support deeper analysis. It must not be forgotten that the logic underlying combinations that look unusual to our modern eyes may have been perfectly clear to the makers and readers of medieval manuscripts.

Unlike Greek MTMs in the periods under consideration, Latin examples more of-ten contain religious or predominantly religious texts (see Tab. 13; distribution refers to the first text of each codex).

	VIII	IX	X	XI	XII	XIII	XIV	XV	*Total*
Sacred	1	4	1	7	49	44	28	89	*223*
Secular				1	8	36	15	67	*127*
Unspecified	1	36	4	4	41	1			*87*
Total	*2*	*40*	*5*	*12*	*98*	*81*	*43*	*156*	*437*

Tab. 13: Latin MTMs – monoblock and multiblock – from a sample of 1,731 northern European manuscripts: totally or predominantly sacred or secular contents.

In terms of size and thickness Latin MTMs are different from those belonging to the Greek manuscript culture. Latin MTMs are on average thinner than their Greek counterparts regardless of the number of texts they contain and rarely ex-ceed 200 pages. This is also true in the case of crowded miscellanies of up to 20 texts, though their thickness grows in proportion to the number of grouped texts (see Tab. 14).

	VIII-XI	XII–XIV	XV	*Total*
1	159.07	219.83	191.36	*203.81*
2	108.79	136.55	126.92	*127.23*
3–4	124.80	158.22	146.20	*149.20*
5–10	124.27	159.37	142.92	*149.54*
11–20	158.20	171.00	223.13	*193.70*
21–31		274.14	322.00	*280.13*
Total	*143.01*	*204.60*	*183.68*	*191.07*

Tab. 14: Latin MTMs – monoblock and multiblock – from a sample of 1,731 northern European manuscripts: average number of folios according to the index of multi-textuality.

Lastly, Latin MTMs of the high Middle Ages are, like their Greek counterparts, considerably smaller than single-text volumes. The fact that the gap virtually dis-appears in the late Middle Ages results from the significant decrease in the aver-age size of books containing a single text, whereas there is much less variation among MTMs (see Tab. 15).

	VIII	IX	X	XI	XII	XIII	XIV	XV	*Total*
Single-text	624.00	508.23	614.60	491.33	502.45	475.14	473.02	400.59	*447.76*
MTM	431.50	434.48	464.00	487.33	528.11	446.54	462.61	394.85	*448.11*
Total	*569.00*	*474.70*	*539.30*	*489.73*	*512.88*	*468.90*	*471.31*	*399.35*	*447.85*

Tab. 15: Latin MTMs – monoblock and multiblock – from a sample of 1,731 northern European manuscripts: average size (H + W).

5 Conclusions

There are overall fewer Greek and Latin MTMs than single-text examples, though MTMs are well represented throughout the Middle Ages, especially in later centuries. My observations do not exhaust the codicological and textual problems related to the appearance and spread of MTMs in Greek and Latin tradition. They are intended to call attention (i) to a number of similarities in Greek and Latin MTMs in terms of the usually limited number of associated texts, the small or medium size of the codices, and the trend towards homogeneity of content, and (ii) to differences in terms of text genres, number of folios and the chronological evolution of multiple-text books in the two cultures.

The data from ancient and recent catalogues are inadequate for further advances in knowledge of Greek and Latin one-volume libraries. The next step is to turn back to direct and deeper analysis of the codices themselves. Each example must be considered and described, regardless of the number of texts it contains, as a complex object consisting of one or more elements produced simultaneously or at different times and possibly in different places. These elements, or 'production units',[38] may or may not have circulated independently. They may have been joined with other elements and originated new 'circulation units'[39] corresponding to stages in the history of the codex, the last of which coincides with the book in its current form. The archaeological study of the codex therefore requires the reconstruction of a 'genetic' history that investigates the origin of each production unit, and a 'stratigraphic' history that reconstructs the succession of forms taken by the codex as a result of the addition or subtraction of units or changes to the existing ones.

A tentative classification of the transformations that a codex could undergo during its life and a proposal for practical analysis of complex manuscripts are given in

---

38 See above, n. 10.
39 See above, n. 10.

the recently published monograph written with Patrick Andrist and Paul Canart.[40] Our method is based on the detection and interpretation of selected symptoms of structural discontinuity with regard to content and physical aspects such as materials used, the composition of quires, layout, script types and handwriting, signatures etc. The final stage is to summarize the observed discontinuities in a table with a view to detecting and interpreting cases in which they tend to coincide at the same points.

A simple example – an elegant Latin parchment codex of the second half of the 13th century, will give an idea of how the method works (see Tab. 16).[41] At first sight, codex Z.I.15 of the Archivio di S. Maria sopra Minerva in Rome[42] seems perfectly homogeneous in terms of content – Latin translations of works by Aristotle or his school – and page layout – a single-column text box surrounded on the three open margins by a dense commentary laid out in a frame.

A systematic survey of the discontinuities shows a simultaneous change of text, support, quire structure, ruling type, layout and scribe (and also of style of decoration and colour of ink) between quires 21 and 22. This proves that the manuscript is in fact a combination of (at least) two independent and more or less contemporary units, each of which contains a variety of texts copied one after another without material breaks. The only exception is represented by the changement of text on fol. 55r, corresponding to the transition between two 'anomalous' quires, but not accompanied by other discontinuities, whose exact meaning deserves a deeper study.[43] The two main units probably reflect two steps or phases in the same project. But how close was the manufacture of the two independent elements in terms of time and place? Were they conceived from the beginning to be part of the same volume? Did they ever circulate separately? In the absence of external clues, these questions are difficult, if not impossible, to answer. An early intention to join the two parts in a single volume is attested by the transcription in a slightly later hand of an index on the spaces left blank at the beginning and at the end of the codex (fols. IV–V and 321r–323r), and by a commentary inserted throughout the codex on some half-pages and margins. It is clear that a codex with such a physical structure cannot be described as unitary or monolithic, though this has been done until very recently.

---

40 Andrist / Canart / Maniaci 2013.

41 In the third column the slash indicates the presence of a discontinuity at the beginning (slash on the left) or at the end (slash on the right) of the page.

42 On the codex see Barbalarga 1986, 606; Kaeppeli 1962, 228 (D99); Kristeller 1967, 560; Lacombe 1955, 1,066 no. 1553; Meersseman 1947, 630 no. 409. A catalogue of the small collection of the Dominican convent, comprising 18 mostly unknown codices, has been published by Stefania Calì (Calì 2010: see 77–81 for codex Z.I.15), to whom I am grateful for allowing me to use data from her description.

43 The exact nature of the two final folios (a later addition?) would also require a supplementary investigation.

Quires	Folios	Text	Support	Quiring	Hands	Ruling type	Layout
1^{12} (1–12)		/T1	/Su1	/Q1	/H1	/RT1	/L1
2^{12} (13–24)							
3^{12} (25–36)							
4^{12} (37–48)				Q1/			
5^{6} (49–54)	51r 51v 54v	T1/ /T2 T2/		/Q2 Q2/			
6^{10+2} (55–66)	55r	/T3		/Q3 Q3/			
7^{12} (67–78)				/Q4			
8^{12} (79–90)							
9^{12} (91–102)							
10^{12} (103–114)							
11^{12} (115–126)							
12^{12} (127–138)							
13^{12} (139–150)	141v 142r	T3/ /T4					
14^{12} (151–162)							
15^{12} (163–174)							
16^{12} (175–184, 175 repeated 3 times)							

Quires	Folios	Text	Support	Quring	Hands	Ruling type	Layout
3 quires (2 senions + 1 quinio?)	185–218	*lacuna*					
17^{12} (219–230)	220r 220v 221r	T4/ empty page/ /T5					
18^{12} (230–241)							
19^{12} (242–253)	249v 250r	T5/ /T6					
20^{12} (254–265)							
21^{12} (266–277)	267v 268r 277r 277v	T6/ /T7 T7/ added notes/	Su1/	Q4/	H1/	RT1/	L1/
22^{8} (278–285)	278r	/T8	/Su2	/Q5	/H2	/RT2	/L2
23^{8} (286–293)							
24^{8} (294–301)							
25^{8} (302–309)							
26^{8} (310–317)	316r 316v 317v	T8/ /T9		Q5/			
27^{6} (318–323)	318r 320v 321r 323r 323v	T9 (*des.mut.*)/ /textual integration / / added notes added notes/ empty page/		/Q6 Q6/		RT2/	L2/
2 fols. (not numbered)	nn 1 nn 2	/ added notes added notes/	Su2/			?	?

Tab. 16: Roma, Archivio del convento di S. Maria sopra Minerva, codex Z.I.15.

In other much more complex examples,[44] tabular presentation of the discontinuities may help to identify breaks. Each one has to be detected, and its meaning and possible implications have to be evaluated with a view to distinguishing the production units that contributed at various times to the appearance of the codex and the forms in which it circulated. Accurate recognition of the structural complexity of medieval codices, whether they contain one or several texts, is an essential precondition for the study of one-volume libraries. Their historical and cultural significance depends directly on reconstruction of their genesis and possible evolution. There is a wide range of possibilities between the two extremes of perfect uniformity of structure and content and accidental combination of books or parts of books with no material or thematic connection. Thorough archaeological analysis is the only way to identify and understand complex codices, even partially.

References

Andrist, Patrick (2006), "La descrizione scientifica dei manoscritti complessi: fra teoria e pratica", in: *Segno e testo* 4, 299–356.

Andrist, Patrick / Canart, Paul / Maniaci, Marilena (2010), "L'analyse structurelle du codex, clef de sa genèse et de son histoire", in: Bravo García, Antonio / Pérez Martín, Inmaculada, with the assistance of Signes Codoñer, Juan (eds), *The Legacy of Bernard de Montfaucon: Three Hundred Years of Studies on Greek Handwriting*. Proceedings of the Seventh International Colloquium of Greek Palaeography (Madrid – Salamanca, 15–20 September 2008), Turnhout: Brepols (Bibliologia 31A), 289–299.

— / — / — (2013), *La syntaxe du codex. Essai de codicologie structurale*, Turnhout: Brepols (Bibliologia, 34).

Barbalarga, Donatella (1986), *Centri di aggregazione: la Biblioteca domenicana di S. Maria sopra Minerva*, in: Miglio, Massimo / Niutta, Francesca / Quaglioni, Diego / Ranieri, Concetta (eds), *Un pontificato ed una città. Sisto IV (1471–1484)*. Atti del convegno (Roma 3–7 dicembre 1984) Città del Vaticano: Scuola Vaticana di Paleografia, Diplomatica e Archivistica. (Littera antiqua 5), 599–612.

Bischoff, Frank M. (1994), "Systematische Lagenbrüche: Kodikologische Untersuchungen zur Herstellung und zum Aufbau mittelalterlicher Evangeliare, in: Rück, Peter (ed.), *Rationalisierung der Buchherstellung im Mittelalter und in der frühen Neuzeit: Ergebnisse eines buchgeschichtlichen Seminars*, Marburg an der Lahn (Elementa diplomatica 2).

Boschi Rotiroti, Marisa (2004), *Codicologia trecentesca della Commedia. Entro e oltre l'antica Vulgata*, Roma: Viella (Scritture e libri del Medioevo 2).

Calì, Stefania (2010), "I manoscritti dell'Archivio di Santa Maria sopra Minerva", in: *Memorie domenicane* 41, 29–105.

---

44 Other examples are discussed in Andrist / Canart / Maniaci 2013.

Cavallo, Guglielmo (1989), "Libro e cultura scritta", in: Momigliano, Arnaldo / Schiavone, Aldo (eds), *Storia di Roma*. IV. *Caratteri e morfologie*, Torino: Einaudi, 693–734.

— (1994), "Discorsi sul libro", in: Cambiano, Giuseppe / Canfora, Luciano / Lanza, Diego, *Lo spazio letterario della Grecia antica*. I, 3. *I Greci e Roma*, Roma: Salerno Editrice, 613–647.

Crisci, Edoardo / Pecere, Oronzo (eds) (2004), *Il codice miscellaneo. Tipologie e funzioni*. Atti del convegno internazionale (Cassino, 14–17 maggio 2003), Cassino: Università degli Studi di Cassino (= *Segno e testo* 2).

Crisci, Edoardo (2008), "Riflessioni paleografiche (e non solo) sui più antichi manoscritti greci del Nuovo Testamento", in: Bianconi, Daniele / Del Corso, Lucio, *Oltre la scrittura. Variazioni sul tema per Guglielmo Cavallo*, Paris: École des Hautes Études en Sciences Sociales (Dossiers byzantins 8), 53–93.

Gamble, Harry Y. (1995), *Books and Readers in the Early Church. A History of Early Christian Texts*, New Haven: Yale Univ. Press.

Gumbert, J. Peter (2004), "Codicological Units: Towards a Terminology for the Stratigraphy of the Non-Homogeneous Codex", in: Crisci, Edoardo / Pecere, Oronzo (eds), *Il codice miscellaneo. Tipologie e funzioni*. Atti del convegno internazionale (Cassino, 14–17 maggio 2003), Cassino: Università degli Studi di Cassino (= *Segno e testo* 2), 17–42.

— (2010), " Zur Kodikologie und Katalographie der zusammengesetzten Handschrift", in: Crisci, Edoardo / Maniaci, Marilena / Orsini, Pasquale (eds), *La descrizione dei manoscritti: esperienze a confronto*, Cassino: Università degli Studi di Cassino (Studi e ricerche del Dipartimento di Filologia e Storia 1), 1–18.

Johnson, William A. (2004), *Bookrolls and Scribes in Oxyrhynchus*, Toronto: Univ. of Toronto Press.

— (2009), "The Ancient Book", in Bagnall, Roger S. (ed.), *The Oxford Handbook of Papyrology*, Oxford: Oxford Univ. Press, 256–281.

Kaeppeli, Tommaso (1962*), Inventari di libri di S. Domenico di Perugia (1430–1480)*, Roma: Edizioni di Storia e Letteratura.

Kristeller, Paul Oskar (1967), *Iter Italicum: a Finding list of uncatalogued or incompletely catalogued Manuscripts of the Renaissance in Italian and other Libraries*, II, London / Leiden: Brill.

Lacombe, George [Georgius] (1955), *Aristoteles Latinus. Pars Posterior*, Cambridge [Cantabrigiae]: Typis Academiae.

Maniaci, Marilena (2000), "La struttura delle Bibbie atlantiche", in: Maniaci, Marilena / Orofino, Giulia (eds), *Le Bibbie atlantiche: il Libro delle Scritture tra monumentalità e rappresentazione*, Milano: Centro Tibaldi, 47–60.

— (2010), "La catalogazione dei manoscritti greci conservati in Italia. Stato e prospettive", in: Crisci, Edoardo / Maniaci, Marilena / Orsini, Pasquale (eds), *La descrizione dei manoscritti: esperienze a confronto*, Cassino: Università degli Studi di Cassino (Studi e ricerche del Dipartimento di Filologia e Storia 1), 107–127.

Meersseman, Gilles Gérard (1947), "La bibliothèque des Frères Prêcheurs de la Minerve à la fin du XVe siècle", in: *Mélanges August Pelzer. Études d'histoire littéraire et doctrinale de la Scolastique médiévale offertes à Monseigneur August Pelzer à l'occasion de son soixantedixième anniversaire*, Louvain: Éditions de l'Institut supérieur de philosophie (Recueil de travaux d'histoire et de philologie, III, 26), 605–631.

Muzerelle, Denis / Ornato, Ezio (2004), *La terza dimensione del libro. Aspetti codicologici della pluritestualità*, in: Crisci, Edoardo / Pecere, Oronzo (eds), *Il codice miscellaneo. Tipologie e*

funzioni. Atti del convegno internazionale (Cassino, 14–17 maggio 2003), Cassino: Università degli Studi di Cassino (= *Segno e testo* 2), 43–74.

Nyström, Eva (2009), *Containing Multitudes: Codex Upsaliensis Graecus 8 in Perspective*, Uppsala: Uppsala Universitet (Acta Universitatis Upsaliensis. Studia Byzantina Upsaliensia 11) <http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-100643, full text (seen 15/11/2011)>.

O'Donnell, James J. (1996), "Retractations", in: Nichols, Stephen G. / Wenzel, Siegfried (eds), *The Whole Book*, Ann Arbor: University of Michigan Press, 169–173.

Petrucci, Armando (1986), "Dal libro unitario al libro miscellaneo", in: Giardina, Andrea (ed.), *Società romana e impero tardoantico*, IV. *Tradizione dei classici, trasformazioni della cultura*, Roma / Bari: Laterza, 173–187 (notes 271–274).

Prato, Giancarlo (1984), "La presentazione del testo nei manoscritti tardobizantini", in: Questa, Cesare / Raffaelli, Renato (eds), *Il libro e il testo*. Atti del Convegno internazionale, Urbino, 20–23 settembre 1982, Urbino: Università di Urbino (Pubblicazioni dell'Università di Urbino. Atti di congressi 1), 69–84.

Ronconi, Filippo (2007), *I manoscritti greci miscellanei. Ricerche su esemplari dei secoli IX –XII*, Spoleto: Fondazione Centro Italiano di Studi sull'Alto Medioevo (Testi, studi, strumenti 21).