I CODICOLOGY AND CONTEXT

THOMAS SCHMIDT

I.1 PHYSICAL DESCRIPTION

The Mechelen Choirbook[1] is the only codex from Petrus Alamire's production line that is still held in the city where it was made: where Margaret of Austria held court as regent of the Habsburg Netherlands and, until 1515, served as guardian of the future Holy Roman Emperor Charles V. In contrast to many other books produced in the same workshop in the years before 1517 (when Charles took his court to Spain), it was not designed as a gift of state, but produced for the court at Mechelen itself. This is borne out by the lavish illumination, which focuses on the protagonists of the Habsburg dynasty: in the opening miniature of the book, Charles himself, surrounded by his five siblings and accompanied by the appropriate dynastic emblems and heraldry (▶ Fig. I.1); and, on fol. 17^{r}, a depiction of Maximilian I, who apparently commissioned the book as a gift for his grandson (▶ Fig. I.2).[2] The manuscript apparently never left Mechelen; when exactly it entered the city archive is not clear, but it was already there in 1885 when the city fathers refused a request to have it exhibited in the International Inventions Exhibition at the Royal Albert Hall in London.[3]

▶ p. 162

▶ p. 163

In material terms, Mech ranks amongst the finest specimens from Alamire's workshop, from its "main phase" between c. 1508 and 1516 (Pierre de la Rue's retirement) or 1517 (Charles's departure).[4] Eight of the nine largest and most magnificent parchment codices date from this

1 Hereafter, and throughout the present book, the manuscript is referred to as "Mech". Images of the entire manuscript are viewable online at http://idemdatabase.org/.

2 For a detailed analysis of the iconography, see As-Vijvers's contribution in this volume; and Hofmann, "Mechelen, Archief en Stadsbibliotheek, s.s.".

3 The correspondence relating to this request is held in Mechelen, Stadsarchief, Rep. 1752, Case 71-8.

4 For the production periods of the Alamire corpus, see Meconi, "Alamire, Pierre de la Rue, and Manuscript Production in the Time of Charles V".

TABLE 1. Choirbooks from the Alamire Workshop, organised by dimensions of writing space

❶	❷	❸	❹	❺	
D-Ju 4	Parchment	785 x 560	630 x 390	27	
B-Br 6428	Parchment	735 x 500	585 x 370	28	
D-Ju 9	Parchment	610 x 425	535 x 335	24	
Mech	Parchment	645 x 435	490 x 308	24	
D-Ju 2	Parchment	600 x 415	480 x 300	23	
I-Rvat 160	Parchment	595 x 405	480 x 300	24	
I-Rvat 34	Parchment	595 x 405	480 x 300	24	
I-Rvat 36	Parchment	595 x 405	480 x 300	24	
D-Ju 7	Parchment	620 x 415	480 x 295	24	
NL-SH 72B	Paper	555 x 380	475 x 300	15	
NL-SH 72C	Paper	560 x 385	475 x 300	15	
NL-SH 72A	Paper	560 x 385	470 x 300	15	
A-Wn 15495	Parchment	550 x 380	470 x 295	23–24	
E-MO 766	Paper + parchment	555 x 381	460 x 285	20	
D-Mbs 6	Paper	560 x 385	450 x 285	21	
D-Ju 3	Parchment	557 x 380	450 x 285	23	
E-MO 773	Parchment	555 x 390	450 x 275	22–23	
D-Ju 12	Parchment	555 x 380	440 x 300	23	
D-Mbs 7	Paper	560 x 390	440 x 295	22	
B-Br 15075	Parchment	570 x 390	440 x 290	20	
A-Wn 15496	Parchment	515 x 265	435 x 270	23–24	
D-Ju 5	Parchment	565 x 395	430 x 285	22	
D-Ju 8	Parchment	485 x 345	390 x 255	19	
A-Wn 15947	Parchment	520 x 370	385 x 270	20–22	
B-Br IV.922	Parchment	480 x 345	385 x 250	19	
D-Mbs 34	Paper	480 x 275	385 x 205	18.5	
A-Wn 11778	Paper	395 x 280	325 x 205	17	
B-Br 215–216	Parchment	430 x 320	320 x 240	18.5	
D-Ju 20	Parchment	435 x 320	320 x 235	18	
D-Ju 21	Paper	402 x 280	315 x 220	17–18.5	
A-Wn 4810	Paper	392 x 280	315 x 205	17	
I-SUBac 248	Paper	396 x 282	305 x 210	17.5	
D-Mbs F	Parchment	375 x 275	300 x 210	15	
A-Wn 4809	Paper	392 x 280	300 x 205	17	
GB-Lbl 8.G.vii	Parchment	370 x 258	270 x 185	15	
B-Br 228	Parchment	365 x 260	270 x 185	15	

❶ MANUSCRIPT
❷ SUPPORT
❸ PAGE DIMENSIONS (MM X MM)
❹ TYPICAL WRITING SPACE DIMENSIONS*** (MM X MM)
❺ RASTRUM SIZE (MM)
❻ NORMAL MAXIMUM NUMBER OF STAVES PER PAGE
❼ RULING PATTERN
❽ PRINCIPAL REPERTOIRE
❾ DATE****

	6	7	8	9
	12	On pricked grid	Masses	1516•
	10	On pricked grid	Masses	c. 1520–35
	12	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1508–17
	10	On pricked grid	Masses	c. 1508–16
	11	Flexible	Masses	1530–31
	11	Flexible	Masses, motets	1530–31
	11	Flexible	Masses	1530–31
	10	On pricked grid	Masses	c. 1508–16
	10	Flexible	Masses	1523?
	10	Flexible	Masses	c. 1520–35
	9	On pricked grid	Masses	c. 1518–25
	10	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1518–25
	10	Flexible, but matching recto and verso	Masses	c. 1508–17
	9–10	Flexible, but matching recto and verso	Masses	1524 or later
	9	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses	c. 1508–17
	10	On pricked grid	Masses	c. 1508–17
	9	On pricked grid	Masses	c. 1508–16
	10	On pricked grid	Masses and liturgical polyphony	c. 1520–21
	10	Flexible	Salve Reginas	c. 1521–35
	10	Flexible	Masses	c. 1521–25
	9	On pricked grid	Masses, motets	c. 1508–16
	9	On pricked grid	Magnificats	c. 1508–17
	9	On pricked grid	Masses	c. 1521–25
	9	Flexible	Masses	c. 1521–25
	9	Flexible	Masses	c. 1521–25
	10	On pricked grid	Masses	c. 1520–25
	9	Flexible	Masses	c. 1521–25
	9	On pricked grid	Motets	1521 or later••
	9	On pricked grid	Chansons	c. 1508–16

• Specific dating as proposed in Meconi, "Power, Prestige, and Polyphony". An alternative date of 1513–14 has been proposed in Morrison, "Music Meant to Impress" (but rejected by Meconi).

•• Specific dating proposed by Aaron James, as cited in Meconi, "The Unknown Alamire", 40 n. 57.

••• The writing space is measured from the top line of the top stave to the text line of the bottom stave; where there is no text in the bottom line, the writing space is slightly smaller.

•••• Dating periods as proposed in Meconi, "Alamire, Pierre de La Rue, and Manuscript Production".

period, forming a "core group" of luxury mass codices (see Table 1, first nine entries, with the exception of B-Br 6428, which belongs to a later production period; the Table is ordered by writing space, rather than page size, as the latter is susceptible to inconsistent variance through subsequent trimming, while the former provides a reliable indication of original dimensions). With the exception of D-Ju 4, the manuscripts of this core group are all compiled from real bifolia, that is, animal skins measuring upwards of 130 × 85 cm before folding, binding, and trimming. With c. 645 × 435 mm (allowing for slight variations in the size of individual leaves through shrinkage of parchment), Mech is second in size only to the exceptional D-Ju 4 within this group.

Mech is copied on smooth, white vellum (calfskin) parchment of even thickness, thoroughly treated in such a way that hair and flesh side are virtually indiscernible; only the last codicological unit (fols. 95–110, containing the *Missa Alleluya*) is made up of bifolia of slightly lower quality, with more irregularities of thickness, size, and colour. Given the size of the bifolia, there are very few instances where blemishes or holes had to be repaired (fol. 94), or where the skin was not quite big enough (minor lacunae at the edges are seen on fols. 31, 60, 87, 99, and 100). The state of preservation of the pages is excellent, with little discolouration or staining, and virtually no flaking of the ink or paint; the book was obviously never exposed to the elements and always preserved with care. Today, it is stored in a custom-made padded wooden chest. There are traces of handling in the bottom right-hand corners of leaves, but these are visible primarily on those pages with the greatest degree of illumination, so may well be the result not of use in performance, but of readers most interested in beholding the most lavishly decorated openings.[5]

The codex is still in its original covers, of dark brown leather over wooden boards with a three-line blindtooled pattern of nested frames surrounding criss-cross lozenges in the centre, stamped with generic decorative floral and seashell motives (▶ Fig. I.3). The binding is rendered even more impressive through large metal corners, bosses, and a massive central lock, of which only the catchplates survive. In all this, the binding is particularly similar to those of D-Ju 2 and D-Ju 5.[6] The spine was re-

▶ p. 164

5 On patterns of use in illuminated manuscripts from this period, see Rudy, "Dirty Books".
6 Viewable at http://idemdatabase.org/.

made at a later point and the book rebound, retaining the original covers: this occurred most recently in 1961.[7] The book block, however, was never re-trimmed after binding, as witnessed by the slightly irregular page sizes and the still partly visible, apparently original gilding of the edges.

As in most codices of the period containing masses, the individual compositions are each copied as self-contained codicological units (▶ Appendix 2 for gathering structure and contents). The beginning of each mass was originally indicated by a tab attached to the outer edge of the first page; only traces of these are still visible, with the original protruding fabric knobs now lost. Each unit consists of a series of gatherings customised to hold exactly one mass. Blank pages at the beginning and end result from compositions beginning on a verso and ending on a recto. The only exception in the case of Mech occurs at the end of Pierre de la Rue's *Missa de sancta cruce*, on fol. 80^{v}, where the conclusion of the final "Agnus Dei" places all five voices on a single verso. Depending on the length of the individual masses, the codicological units comprise between fourteen and eighteen folios; each unit begins with a quaternion, followed by a second gathering of varying size – a ternion, another quaternion, or a quinion – to account for the masses' variable lengths.

▶ p. 189

In two cases, two leaves are added to the end of the unit (fols. 79–80 and 109–10); perhaps the compiler initially underestimated the number of pages required to copy the mass. At the very end, the two final leaves of the manuscript are not a bifolium but the two anterior leaves of a binion; the counterpart to fol. 110 was turned into the rear pastedown in binding, while the counterpart to fol. 109 was removed and is now lost. Since there is no loss of text, one can only speculate what the original purpose of the two leaves following what is now fol. 110 would have been – perhaps the scribe in this instance miscalculated again, first underestimating the number of leaves needed and then adding too many to compensate. Additionally, the two leaves clearly came loose from the binding at some point: they appear more worn than the other gatherings and are slightly damaged, with a pronounced fold near the gutter. Even in the current binding they are not as firm a part of the book-block as the preceding gatherings.

7 The restoration was carried out by G. Du Bois d'Enghien, a book-restorer from Brussels who also undertook work for the Royal Library; see the documentation in Mechelen, Stadsarchief, Vak 72 No. 5 / 1961.

Furthermore, a single leaf is appended to gathering 6 (fol. 48), and another inserted into gathering 1 as fol. 3; in both cases, the stubs are still clearly visible in the binding. The addition of fol. 48 is clearly intended to allow the completion of La Rue's *Missa Conceptio tua*. Less easily explained is the insertion of fol. 3, as there is no interruption or retrospective change in the copying of Matthaeus Pipelare's *Missa Fors seulement*. Perhaps the copyist realised from the start that the mass would require an uneven number of folios, necessitating an irregularity of compilation at some point. The inserted leaf in the first gathering would then have allowed him to enter the entire Credo without having to start a new unit in the middle of a section. On the other hand, ending a movement or section at the end of the first gathering of a given mass is not uniformly observed in Mech, so we cannot assume this to be a guiding principle.

There is neither an index nor original foliation; both the pencil foliation in the top right corner and the pencil pagination in the bottom outside corners are later additions, presumably entered in the Mechelen City Archive in the twentieth century. The only original indication of internal organisation are remnants of leaf signatures, in brown ink or pencil on the bottom rectos (▶ p. 189 ▶ again Appendix 2). The function of such signatures was to indicate the correct sequence of leaves within and between gatherings prior to collation and binding. They were often trimmed off during binding, and such is the case here as well; they remain visible only in a few instances. Though sparse, these indications nonetheless make it clear that the signatures do not reflect the composition of the book as a whole, but only the order of the gatherings within a mass: each unit of two or three gatherings starts again with the first folio as "a1".

Given the large number of similar mass codices produced over a short period of time, it is tempting to hypothesise that Alamire had a number of complete masses ready "in stock", after the fashion of a professional scriptorium or stationer working to a standardised production brand.[8] Codices might then have been compiled on order in mix-and-match fashion to suit the occasion, analogous to the "fascicle-manuscripts" that Charles Hamm has proposed were common for polyphonic sources

8 In Italy, pre-ruled music paper (*carta rigata*) became a commercial commodity in the late fifteenth century. Elsewhere, scribes apparently ruled their own paper and parchment, but often followed established models of mise-en-page. See Schmidt, "Making Polyphonic Books in the Late Fifteenth and Early Sixteenth Centuries", 16–22.

of the fifteenth century.[9] Compilations of polyphonic repertoire out of pre-existing separate units are not uncommon in the decades around 1500, particularly in institutional collections. In the Papal Chapel, for example, the choir apparently sang from single fascicles that were only later compiled and bound into the big volumes we know today.[10] However, such "fascicle-manuscripts" were probably rarer than postulated by Hamm and restricted to specific contexts,[11] and the situation at the Mechelen court works the other way around from the Papal Chapel. The Alamire manuscripts are not performance materials bound retrospectively for archiving purposes – on the contrary, in order to fulfil their primary intended purpose as gifts, they had to exist as fully formed material objects, with repertoire chosen and ordered specifically.

In principle, of course, such an object could be created by taking, ordering, and adapting pre-existent material. The most famous example of such a manuscript is the "Medici Codex" (I-Fl 666), compiled in 1518 as a gift for Lorenzo de' Medici and Madeleine de la Tour d'Auvergne.[12] There are no traces of such ad hoc reorganisation in the core group of Alamire codices under consideration here: on the contrary, they follow a consistent plan of repertoire selection and ordering that is in principle shared by all codices, but implemented specifically for each one.[13] Each book is organised according to a discernible programme of musical and visual content, bringing together the sacred/symbolic content of the masses with the dynastic or symbolic importance of the donor and/or dedicatee. As Mara Hofmann has pointed out, these programmes unfold in descending order of visual impact and symbolic/dynastic import:[14] the first mass is supplied with the largest and most lavishly decorated set of miniatures and/or initials on the first opening of the book. Every subsequent mass begins again with a display opening, but, visually, these at best equal and often drop below the quality of the first.

In Mech, this principle is implemented in two distinct stages. The first four masses open in similar fashion, with a large miniature for the

9 Hamm, "Manuscript Structure".
10 See Roth, "Die Entstehung des ältesten Chorbuches mit polyphoner Musik der päpstlichen Kapelle"; and Schmidt-Beste, "Polyphonic Sources, ca. 1450-1500".
11 See Bent, "Some Criteria", 300–4; also ead., "Polyphonic Sources, ca. 1400–1450".
12 See Rifkin, "The Creation of the Medici Codex", 562–67.
13 See in particular Blackburn, "Messages in Miniature".
14 See Hofmann, "The Decoration of Music Manuscripts from the Burgundian-Habsburg Court", 195f.

discantus (in manuscripts of polyphonic music the position of primary visual and symbolic impact), smaller miniatures or decorated initials for the other voice-parts, and intricately decorated partial borders. The very first opening is clearly the highlight of the whole book: the miniature depicting Archduke Charles as the dedicatee is slightly, but noticeably, bigger and more sumptuous than those of the subsequent three masses. Masses five to seven, by contrast, are "only" introduced by large and elaborate polychrome calligraphic initials. Within each mass, the decoration is restricted to monochrome cadel-type calligraphic initials of varying size, depending on the internal hierarchical position of the movement/section.

While the miniatures are evidence of a clearly planned hierarchical sequence of units within the codex, this sequence does not depend on decisions regarding the layout of the page and the copying of the music and text – all of which clearly preceded the execution of the decorative apparatus. While the booklets for every mass are compiled and ruled individually with a view to accommodating the specific music they contain, the basic preparation of the first opening is the same for every mass. The copying of music and text might therefore have been completed in its entirety for all seven masses before any decision was taken regarding their order and hierarchical position within the decorative programme. What looks custom-designed in its end result may in fact have been thought out and implemented retrospectively based on a generic collection of masses. The choice of Pipelare's *Missa Fors seulement* as the opening mass, as the only mass in the manuscript not by Pierre de la Rue, and the only one using a secular (and quintessentially courtly) cantus firmus, is surely intentional and meaningful. Nonetheless, the decision to include this mass, and to place it first, could have been made after the music itself had been copied. Likewise, the two last masses – the *Missa de feria* and the *Missa Alleluya* – are more generic in content and would not have been out of place in any other Alamire codex from the period, and in any position within them; they do in fact frequently appear elsewhere in the corpus, often towards the end of a manuscript (▶ Appendix 4).

▶ p. 221

Were the Mech masses thus pulled off a shelf of pre-produced works, assembled into an appropriate collection that was then filled with dynastic and symbolic meaning? After all, the other specimens of this central group of Alamire luxury codices follow the same basic parameters of mise-en-page. This notion is disproved, however, on taking a closer look

at the preparation of the pages. While all books within the core group, with the exception of D-Ju 2, use the same size of rastrum, Mech has a slightly larger page size than the other codices ruled with ten staves per page. More crucially, given that the page size might vary due to trimming, the dimensions of its writing space also slightly but consistently surpass those of the others: c. 490–95 × 305–10 mm as opposed to c. 480 × 300 mm (see again Table 1). This may not seem much, but the consistency of the pricking and ruling within each individual codex and the corresponding regularity of size of text-block make clear that this is beyond a reasonable margin of error. This is corroborated by the three books for Leo X (I-Rvat 160, 34, and 36), which are entirely consistent within themselves in their preparation, and thus obviously made as a set, but also clearly differ from Mech. Mech was thus prepared and produced in a single campaign and with a specific view to form a single book, even if its final compilation and ordering might have been unknown at the point of copying. Given the substantial effort and financial outlay involved, and given that the production was based on individual payments rather than on a speculative commercial basis, it must have been deemed more efficient and practical to produce books (or parts thereof) on demand rather than keeping a supply in stock which might or might not be required.

That said, there is one possible exception to this: the very last mass might indeed be a "left-over" from a different project. It is prepared with a slightly smaller writing space than that of the preceding units, and one that is more similar to that of other books from the same period and production type. Together with the penultimate mass, it was also copied by a different combination of scribes from the rest of the manuscript, in a different, less consistent fashion (on which more below), and on less high-end material.

Furthermore, this mass is the only one in Mech that contains an explicit ascription to Pierre de la Rue. Zoe Saunders interprets the lack of ascriptions in the rest of the book (as well as the lack of titles in the first four masses) as a result of insufficient space in the top margin, given the presence of decorated borders that would have taken precedence in design terms over an ascription.[15] But elsewhere, Alamire scribes manage such situations by writing ascriptions and titles above the border (for

15 Saunders, "Anonymous Masses in the Alamire Manuscripts", 268–69; also ead., "Anonymity and Ascription", 255–60.

example in D-Ju 4, fol. 53^{v}, or B-Br 6428, fol. 62^{v}).[16] Rather, this lack of ascriptions – which contrasts with the other books from this group – is more likely a function of Mech being an object for internal rather than external consumption. Nobody at the Mechelen court who was likely to see this book needed to be told that Pierre de la Rue had composed most of the repertoire; Frederick the Wise and Leo X, on the other hand, would be less likely to be familiar with the most prestigious composer of the Habsburg-Burgundian court. The possibility thus remains that the last mass – given that it breaks with the anonymous approach characteristic for Mech – was originally made with a different purpose in mind.

I.2 MISE-EN-PAGE AND COPYING

The codicological units of Mech were, as already mentioned, prepared with exceptional consistency and evenness. As in professionally produced non-music books from the period, this was achieved by pricking the pages one gathering at a time, and ruling along the grid thus produced, thus also ensuring that lines were consistently spaced both from recto to verso and across an opening.[17] In Mech, every page is pricked in the top and bottom margin for two vertical bounding lines drawn in pencil or (more rarely) in light brown ink. The outside margins are pricked for a regular grid of ten staves. The staves themselves were ruled with a 24-mm single rastrum, with the bottom lines broadly corresponding to the pricking holes. The bottom lines of staves often line up slightly above or below the horizontal level of the prick, suggesting the use of a bevelled straightedge or another kind of measuring device against which the rastrum would be set at a slight offset. The distance both between the bounding lines and between the pricking holes for the staves is extremely consistent across the entire book. This was presumably achieved by some sort of distance-gauging device. Lines for the underlaid text were added later, and only where needed for words actually present; they consist of a double line in pencil or light brown ink of the same type as the vertical bounding lines, c. 5 mm apart (where necessary, two pairs of lines are entered one below the other for double-texted voices). Al-

16 Images viewable online at http://idemdatabase.org/.

17 Schmidt, "Making Polyphonic Books", 12. Saunders calls this way of ruling "duplication of staves"; see her "Anonymity and Ascription", 251f. and 272–77.

though drawn individually and entered without the aid of pricking, they are again highly regular in matching recto and verso. Their equidistance ensures a consistent minim-height for the script, and a consistent distance to the stave above. The only exception to this regular ruling pattern is found on the last two folios, which are ruled for eleven staves without reference to the existing pricking. This again adds to the more ad hoc impression left by the last mass in comparison to the others.

While the writing space is thus almost without exception pre-determined according to fixed parameters, within this basic grid the staves are ruled very flexibly, according to the requirements of the music that was to be copied onto each page or opening, as well as the space required for the decoration and the initials. For the latter, staves are indented according to a finely tuned hierarchical system. The main discantus initials/miniatures at the beginning of every mass (and sometimes of the second "Kyrie" as well) are entered into a triple indentation about 13–15 cm deep. On these first openings, the top stave is not ruled, to leave room for the decorative borders and, where required, the title and composer ascription. Double indentations are used for the initials of many internal movements and some subsections, such as the "Christe", "Pleni", and "Benedictus": they are most consistently present in the discantus, which remains the visually privileged voice, less so in the lower voices. Single indentations follow for the initials of the remaining sections and subsections, and very shallow single or double indentations for the *Residuum* rubrics where a section extends across two openings without a break.

Where a voice-part requires less than its full allocation of space, staves are often omitted from the ruling, creating a blank space either between voice-parts, or, more rarely, at the bottom of a page. Occasionally, the scribe overestimated the amount of space he would need to copy a section, thus leaving a stave unnotated at the end of a voice-part. More rarely, the opposite happened and he ran out of space. He then had either to add an eleventh – unpricked – stave at the bottom of a page (e.g. fols. 25^{v}–26^{r}, 45^{v}–46^{r}, 59^{v}–60^{r}, 96^{v}–97^{r}, 98^{v}–99^{r}), to extend a stave into the right-hand margin (fols. 5^{r}, 26^{r}), or to add a partial stave in a space originally unruled (fol. 66^{v}, lines drawn individually). These rare inconsistencies notwithstanding, the preparation bears witness to a detailed knowledge of the music to be copied and a resultant planning

of the openings before rastrum was put to parchment.[18]

Such planning could reasonably only have been carried out by the copyist himself (rather than a stationer or amanuensis), and by somebody who was a knowledgeable musician.

Meet Flynn Warmington's "Scribe X", responsible not only for the design and execution of the majority of Mech, but also for a substantial portion of the rest of the core group to which it belongs. Warmington calls him "the most eloquent scribe in Alamire's workshop, producing finely chiselled notes, graceful and varied letters, and undoubtedly many of the finest calligraphic initials."[19] His musical expertise makes him likely to have been a member of the Habsburg court chapel at Mechelen, from which Alamire presumably drew the majority of copyists for his books.[20] But while nothing more can be said about Scribe X's identity, Alamire obviously knew a good thing when he saw it, and used him as much as possible in the early-to-mid 1510s, alongside less substantial contributions by Warmington's Scribes C (including associates C2 to C6), D, and E.[21] In Mech, Scribe X (who is also responsible for all paratexts and penned initials in the book) is joined by music scribe C2 and text scribe C5. C2's music notation, when at its best, is very similar to that of Scribe X – to the point that one might wonder whether we are looking at different incarnations of the same hand rather than two separate individuals. But it is on the whole more unevenly shaped and spaced, as well as slightly sloping forward, with a sagging C-clef that is usually bounded to the left only by a single vertical line (as opposed to X's double line). C5's text hand is slightly narrower and more spidery than X's, with less ornate letter shapes; it appears only in a handful of cantus firmus texts in the first and third masses (▶ p. 189 ▶ Appendix 2 for a full listing of hands). Things change once again towards the end of the codex. C2 fully comes into his own in the last two masses, where his music script appears combined with X's text hand. The same combination is found in the near-contemporary I-Rvat 160[22] – which once more raises the question of whether

18 Perhaps exemplars were used with page-turns marked up, as discussed in Friebel, "Die Handschriften Wien, Österreichische Nationalbibliothek, Ms. 11883 und Vatikan, Biblioteca Apostolica Vaticana, Ms. Chigi C VIII 234".
19 Warmington, "A Survey", 43.
20 Most institutional music scribes were primarily employed as singers; see Schmidt-Beste, "Über Quantität und Qualität von Musikhandschriften des 16. Jahrhunderts".
21 See Warmington, "A Survey of Scribal Hands", 47–52, and the individual manuscript entries in the same volume.
22 See Warmington, "Vatican City, Biblioteca Apostolica Vaticana, MS Cappella Sistina 160".

perhaps not only the last mass, but indeed the last two masses, were originally intended for a different production.

Even by the high standards of the Alamire workshop, the copying was planned and executed with great care. The guiding principles are those of "normal" large institutional choirbooks intended for performance, such as those of the Papal Chapel or the Munich court. The large size allowed a substantial number of singers to read from the book and lay-out decisions were apparently taken to facilitate sight-reading at speed.[23] Although there is little to suggest that Mech was made to be used by the court chapel, it nonetheless emulates in terms of layout precisely those books that were designed for the use by singers.[24]

A first priority is to arrange the music onto openings in a way that makes sense both visually and practically. A standardised voice layout is used, enabling singers to find their parts in their accustomed spaces. All openings follow the typical arrangement of voices for polyphonic sources in western and southern Europe. In four voices, the discantus and tenor are placed on the verso, and contratenor and bassus on the facing recto. In five voices, the asymmetric disposition resulting from an odd number of parts necessitates adjustments in layout. Where possible, normally when one of the tenor parts has a slow-moving cantus firmus that takes up relatively less space than the other voices, the scribe simply fits three voices on one side of the opening and two on the other. More frequently, however, one of the two lowest voices (lowest in terms both of texture and of where it is notated on the page-opening) is distributed across both sides of the opening: either the second tenor begins on the verso and crosses over to the facing recto, or, more counterintuitively given the standard reading direction from left to right, the bassus begins on the recto and then leaps back onto the facing verso halfway through. In both cases, the link between the two portions is established through matching pairs of *signes-de-renvoi* – elegant red pointers in the shape of crosses, diamonds, rhombus-shaped dots, trefoils, balls, sunflower-like symbols, or even a stylised battle-axe crossed with a crown (fols. 73^{v}–74^{r}). Where the texture is reduced to two or three parts for internal sections of

23 See Boorman, "The Purpose of the Gift", 113f.

24 For an overview of the different types of polyphonic music books and their likely functions, see Schmidt-Beste, "Private or Institutional – Small or Big?".

movements, the correct placement of voices is maintained, even if that means that voice-blocks remain empty on the page as place-holders.

Another priority is to fit entire movements or sections onto a single opening or onto as few openings as possible, in order to avoid potentially awkward page-turns in the middle of sections. Where page-breaks are unavoidable, they are inserted at points that facilitate performance: they almost invariably coincide with a cadence, such that the cadential resolution (which the singers would know without looking) comprises the first notes of the new opening.[25]

Depending on the length of the movement or section, some openings contain comparatively little music, whilst others are extremely crowded; it is normally in the latter circumstance that voice crossovers or other adjustments of the mise-en-page are needed. In the five-part *Missa Conceptio tua*, for example, the last opening of the Gloria (fols. 38^{v}–39^{r}) contains relatively little music, permitting a wide spacing of the notes, empty staves, and space between the voices. By contrast, other openings of the same mass are very densely spaced. The "Christe" and "Kyrie" II (fols. 35^{v}–36^{r}) even necessitate a series of adjustments beyond the crossing over of the bassus to make the music fit without adding extra staves or writing into the margins. The notes are spaced as closely together as possible. When copying the discantus, the scribe already realised he was likely to need every inch of space on the page. The final notes of that voice are thus copied not at the beginning of the fifth stave, as one would expect, but at its end, with the continuation indicated by a red line. This allows the tenor to start at the beginning of the same stave, which in turn leaves two staves, rather than one, at the bottom of the verso side. These staves are then used to accommodate the overflow from the facing recto page, which contains the three remaining voices. Below the normally spaced contratenor, the second tenor is squeezed onto three staves. The remaining two staves are filled with the bassus, with its completion in the space left on the verso for this purpose, indicated by a large trefoil-shaped *signe-de-renvoi*.

The above remarks notwithstanding, the notes are evenly drawn and spaced in general, with hardly any effort to group them into metrical

25 See Schmidt, "Making Polyphonic Books", 79–81, drawing on Friebel, "Die Handschriften Wien, Österreichische Nationalbibliothek, Ms. 11883 und Vatikan, Biblioteca Apostolica Vaticana, Ms. Chigi C VIII 234", 80–83, and Boorman, "Two Aspects", 579–81.

units (scribe C2 occasionally hints at this). Occasionally, both scribes X and C2 decide to "stagger" series of breve rests to take up additional space (e.g. fols. 2^{r}, 4^{r}, 37^{v}, 91^{v}, 93^{r}, 107^{r}) – perhaps at least in part with the aim of making the space taken up by different voice-parts more consistent or of occupying an otherwise relatively empty line or opening. But while space-filling is clearly a motivating factor, the result is rarely a completely filled line or voice-block, so this cannot have been the principal motivation. Rather, it seems as though the scribes revelled in the sheer elegance of these arc-shaped sweeps of multiple rests. Here as elsewhere, visual coherence of the musical line and the voice-block takes precedence over completeness of the page.

The text underlay is typical of manuscripts from this period. The placing of the words and segments is not necessarily consistent between the voices, but broadly corresponds to the musical phrases. Textual units are sometimes written contiguously, and sometimes segmented into words or syllables. However, no consistent pattern can be discerned in this respect, and some phrases of music receive no text at all. Particularly intriguing, and crossing the line between text and paratext, is the underlay of the cantus firmus voices (▶ Appendix 2). Where the cantus firmus text is indicated only as an incipit or rubric at the beginning of a movement, as in the first mass, no layout issues are posed beyond the mass ordinary text occasionally being pushed slightly to the right to make room for it; but elsewhere, most notably in the *Missa pascale*, both cantus firmus and ordinary texts are copied in their entirety. In the Gloria, Credo, and Agnus, the two texts are copied one below the other, while in the Kyrie and Sanctus, they are interleaved on one line. Visually, the two texts are still separated by ink colour – the cantus firmus text in red and the mass ordinary text (as in the other voices) in black – but this practice of interleaving raises issues not only of spacing but also of meaning. While it is in theory possible that both texts might have sounded in performance, if there were two or more singers on the tenor part, that seems neither likely in a pragmatic sense nor encouraged by the way the two are combined on one line. One might just as well argue that the presence of the text was primarily a symbol or a marker: it is technically a rubric ("in red"), and rubrics, as instructions, are not normally said out loud. Or it could be viewed as a prayer accompanying mass, again leaving open whether it was meant to be recited aloud or read silently alongside the sounding mass ordinary text. Whatever its practical implication,

▶ p. 189

the scribal solution appears to be primarily visual or conceptual. The scribe's priority was that both texts were there, that they could be seen and read. Whether or not either or both were heard was not necessarily his concern.

While singing the cantus firmus with its original text, then, is not an obvious practical option, singing the mass ordinary text to the cantus firmus tune is not necessarily straightforward or encouraged by the notation either. As might be expected, the cantus firmus melody more easily fits its own text; the mass ordinary text, on the other hand, is not mirrored by the music in a consistent fashion. Sometimes there are clearly not enough notes in the melody for the number of syllables. This is most apparent in the Credo of the *Missa Ave Maria*, where the first tenor begins both sections by presenting the chant in extremely long, unadorned notes. No words at all are given to this voice at this point in the "Patrem", and only a few snippets of the ordinary are supplied for the "Crucifixus".[26] Subsequently, the chant melody is broken up into smaller values apparently designed with words in mind that are not those of the cantus firmus. But puzzlingly, neither the rhythms nor the phrasing of the revised melody match the ordinary text in any obvious way, and the tentative underlay in the source appears to reflect this mismatch.[27]

Rubrics aside, Scribe X generally supplied the codex with a rich and diverse array of paratextual indications. While composer ascriptions and mass titles are, as mentioned, largely absent, other types of instructions abound. As in many other codices, from the Alamire corpus or elsewhere, all initials except those for the discantus refer to the voice-name rather than the first letter of the first word of the sung text, thus in itself constituting a kind of rubric (although rarely written in red ink). But the scribe here goes one step further by integrating the written-out voice-names themselves into the initials in various elegant ways, and also by choosing to replace the normal designations with pseudo-Greek ones presumably designed to display humanistic learning: "ba[r]ricanor" ("low sounding") for "bassus" in a number of places; "teuma" instead of "tenor" on fol. 50^{v} (perhaps a blending of "neuma" with "the-

26 See also the discussion in Rothenberg's chapter in the present volume.

27 The same applies to the other Alamire sources transmitting the mass, amongst them the near-contemporary A-Wn 15496 and D-Ju 12 (which present the text very similarly, except for adding the first phrase of the cantus firmus text in red at the beginning of the "Patrem"). See also the complete edition whose underlay similarly lacks confidence: CMM 97/1, xlviii–lxvii and 115–51.

ma"); and "ipostbasis" (probably a blend of "basis" and "ipostasis", "that which stands below") on fol. 66^{r}.[28] Scribe X's sense of wit further extends to his formulations for tacet instructions, which range from the succinct ("Benedictus qui venit obmutescit" – "The blessed one who comes falls silent" – on fol. 46^{r}) to the pretentiously elaborate ("Frustrum fit per plura quod eque bene potest fieri per pauciora. Hec philozophus" – "It is vain to do by more what can equally well be done by less. Thus the Philosopher" – on fol. 106^{v}, quoting William of Ockham, drawing on Aristotle).[29]

Other paratextual devices combine visual and pragmatic aspects, most obviously the frequent instructions to turn the page ("verte") where a section continues without a break across two openings. On fols. 20^{v}–21^{r}, for example, at the end of the first half of the "Qui tollis" from the *Missa pascale*, the continuation of the music on the next opening is indicated by page-turn instructions in every voice, but with different specific wordings: the bassus is merely told "Verte" ("Turn"), tenors 1 and 2 "Verte cito" ("Turn quickly"), the contratenor "Verte folium cito" ("Turn the page quickly"), and, finally, the discantus "Verte folium et invenies" ("Turn the page and you will find"). Clearly, the pragmatic instruction to turn the page is not the primary concern here. Not only is it redundant to have it in all voices – after all, no more than one person can reasonably turn the page – but it makes even less sense to have a page-turn performed quickly in one voice and at normal speed in another. In Mech, the layout function of these "verte" instructions thus outweighs the pragmatic: the more space there is left between the end of the notation and the end of the stave at the right-hand margin of the text-block, the longer the instruction, to fill the otherwise empty space in an aesthetically satisfying manner. As such, these "vertes" are a particularly telling instance of how the semantic content of the (musical or textual) notation is inseparably intertwined with aspects of decoration and layout. Finally, Scribe C2 once introduces an unusual page-turning device that can only be described as a "catch-note" (by analogy to a catchword in text manuscripts): on fols. 99^{v}-100^{r}, the *custodes* are followed by the first rest (in tenor 1) and the first rest plus the first note (in

28 See the discussion in Hofmann, "Mechelen, Archief en Stadsbibliotheek, s.s.", 251.

29 Blackburn, "The Eloquence of Silence", with a full list of all Alamire tacet inscriptions on 213–23. Blackburn identifies the scribes of the central group (D, X, C, F, and Y) as particularly versatile in coming up with such inscriptions, and notes that they shared a repertoire of sayings.

the contratenor) of the next opening. Such "catch-notes" are very rare both in the Alamire corpus and elsewhere, but C2 uses them at least once more, in I-Rvat 160.

The convergence of paratext and mise-en-page is also apparent in graphic rather than verbal signs. In contrast to some other manuscripts from the period (especially English ones), final notes are rarely extended: the elegant and elongated two-compartment final maxima that appears with some frequency displays no ambition to reach the end of the line, but serves, rather, to visually emphasise closure. Empty partial staves are often filled in other ways. For example, Scribe X often adds up to four repeated *custodes* at line-ends. After the end of a section, the normal double vertical line can be extended by a line-filler in the form of a series of tapering vertical lines that in turn can be completed by signs that are identical to the *custodes* but whose function is now entirely visual, not referring to the pitch of anything that follows (see, for example, fol. 30^{r}). This feature is a particularly striking example of how the three sign-systems (notation, text, and graphic) are linked on the pages of polyphonic music manuscripts, of how notation and text can take on decorative aspects, and of how decorative elements play a crucial role in clarifying and structuring pragmatic and semantic content. These elements are absent in C2's work.

Within the context of the Alamire corpus, Mech is both normal and unique. Like its siblings, it partakes of a highly distinctive visual brand. This brand, however, aimed not to produce books that look so much alike as to become interchangeable, but rather, within clear parameters of repertoire, size, mise-en-page, and decoration, to create books with their own visual identity. This applies, of course, to the way the repertoire and illumination is customised to serve a specific purpose and audience, but no less to the relish with which scribes inhabited the writing space through notes and words, paratexts and rubrics. We are fortunate that such an accomplished specimen – one that stands out even amongst very distinguished company – has come down to us, still in the place where it was made and virtually undisturbed for the last 500 years.