

*Ambrosiana at Harvard:*

*New Sources of Milanese Chant*

*Edited by*

Thomas Forrest Kelly  
and Matthew Mugmon



Houghton Library of the Harvard College Library  
Cambridge, Massachusetts

2010

*Distributed by Harvard University Press*

# Contents

Illustrations	v
Tables	viii
Acknowledgments	ix
Introduction	i
STUDY 1 Milanese Chant in the Monastery? Notes on a Reunited Ambrosian Manuscript <i>Jessica Berenbeim and Matthias Röder</i>	5
STUDY 2 Long-lost Siblings? Houghton's Summer Manuscript and its Possible Counterpart <i>Matthew Mugmon</i>	23
STUDY 3 In Defense of Green Lines, or The Notation of B-flat in Early Ambrosian Antiphoners <i>Anna Zayaruznaya</i>	33
STUDY 4 Ambrosian Chant: New Manuscripts and New Problems <i>Angelo Rusconi</i>	57
STUDY 5 The Notation of Ambrosian Chant in the Eleventh Century <i>Thomas Forrest Kelly</i>	79
STUDY 6 Psalmody in the Ambrosian Rite: Observations on Liturgy and Music <i>Michel Huglo</i>	97
STUDY 7 Christmas Masses in the Ambrosian Liturgy <i>Terence Bailey</i>	125
STUDY 8 The Making and Breaking of Restrictive Chains: A Closer Look at the Melodiae of Ambrosian Chant <i>Sasha Siem</i>	137
STUDY 9 Responsory Verse Formulas in the Ambrosian Winter Repertory <i>John Z. McKay</i>	153

# In Defense of Green Lines, or The Notation of B-flat in Early Ambrosian Antiphoners

*Anna Zayaruznaya*

THE GREEN LINES with which this study concerns itself have already achieved a certain notoriety among scholars of Ambrosian chant. They appear in hundreds of passages in the British Library Add. MS 34209, the twelfth-century antiphoner long considered to be the earliest surviving redaction of music for the winter part of the Ambrosian liturgy.<sup>1</sup> To some, these lines may be more familiar as the thick gray marks in the facsimile reproduction of the manuscript in volume 5 of *Paléographie musicale*. Whether green or gray, the lines hover in the space where B should be, and are clearly meant to indicate B-flat (see fig. 3.1, where the green lines appear a fourth above red staff lines labeled with F clefs at points where the melody would otherwise be outlining tritones).

What is less clear, however, is the origin of these lines. Are they part of the initial notation for the manuscript or the addition of a later hand? Reacting to their color and quality, Michel Huglo judged them to be much later: “Una lineetta orizzontale verde fu aggiunta molto tardivamente per significare il *si* bemolle, ma quest’aggiunta è sovente incerta e contraddittoria.”<sup>2</sup> The editors of *Paléographie musicale* were also rather severe in their estimation of the marks, judging them to be the work of incompetent scribes or uninformed musicians.<sup>3</sup>

1. For a detailed description, see Michel Huglo, Luigi Agustoni, Eugène Cardine, and Ernesto Moneta Caglio, *Fonti e paleografia del canto ambrosiano*, Archivio Ambrosiano 7 (Milan, 1956). Cataloged in Giacomo Baroffio, *Iter Liturgicum Italicum* (Padua: Cleup, 1999), 104; and Baroffio, “Iter Liturgicum Ambrosianum: Inventario sommario di libri liturgici ambrosiani,” *Aevum* 74 (2000): 585.
2. Huglo et al., *Fonti e paleografia*, 41, no. 50.
3. “Dans le manuscrit original une main très postérieure a tracé grossièrement un trait vert sur un grand nombre de *si*. L’auteur de ces adjonctions a-t-il voulu *bémoliser* cette note? Nous serions portés à le croire, si ces *bémolisations* n’étaient pas faites le plus souvent d’une manière maladroite. Elles révéleraient, en tout cas, une ignorance complète de la tonalité ancienne, & s’écarteraient des indications transmises par d’autres documents ambrosiens.” *Paléographie musicale* 6,



How are we to accept the green lines as authentic, given the silence of other twelfth-century sources? And if Add. 34209 notates B-flat, why don't other early sources do so? This seems especially perplexing in light of the fact that the practice of signing B-flat is common in thirteenth-century Ambrosian manuscripts.<sup>7</sup>

In fact, the silence of sources may be a result of our not listening carefully enough. While no other manuscript contains green lines indicating B-flat, a survey of the other three surviving twelfth-century sources for the winter half reveals a variety of notational methods for indicating the problematic semitone. It is worth briefly considering each manuscript.<sup>8</sup>

The only one of the four sources to survive complete (or nearly so), and probably the latest of the group, is Milan, Biblioteca Capitolare, II.F.2.2.<sup>9</sup> As Weakland observes, the manuscript does not notate B-flats.<sup>10</sup> However, I argue below that it does in fact contain comparable scribal evidence that helps us shed light on the green lines in Add. 34209.

The next source, Biblioteca Apostolica Vaticana Vat. lat. 12932, is the most fragmentary of the four, containing only twenty folios.<sup>11</sup> Yet even this relatively small number of folios reveals many examples of signed B-flat. Although I have not been able to examine the manuscript in person and cannot comment on the ink of the flat signs, close scrutiny of the available facsimiles gives no reason to doubt the originality of the marks (see fig. 3.2), whose presence becomes all the more significant when considered in light of the other three contemporaneous Ambrosian sources.

Finally, and perhaps most significantly, the recently acquired twelfth-century winter antiphoner now known as Houghton Library MS Lat 388 brings a new perspective to the issue.<sup>12</sup> I have found that several passages in this manuscript

---

7. Ibid., 292.

8. This study concerns itself with the winter part of the liturgy because more of these manuscripts have survived from the twelfth century than witnesses for the summer part.

9. The dating of this source, also called the *Codex Metropolitanus*, is somewhat in question. Huglo notes that although Don Garbagnati has assigned it to the middle of the twelfth century, paleographic evidence argues for the end of that century. Terence Bailey also lists it as belonging to the twelfth century, while Giacomo Baroffio gives it to the thirteenth. See Huglo et al., *Fonti e paleografia*, 46–47, nos. 55–56; Bailey, *The Transitoria of the Ambrosian Mass: Compositional Process in Ecclesiastical Chant*, xi; and Baroffio, “Iter Liturgicum Ambrosianum,” 584.

10. Weakland, “The Office Antiphons of the Ambrosian Chant,” 292–293.

11. Cataloged in Huglo et al., *Fonti e paleografia*, 268; Baroffio, “Iter Liturgicum Ambrosianum”; and Baroffio, *Iter Liturgicum Italicum*, 287.

12. This manuscript is cataloged as “Varese, Bianchi” in Huglo et al., *Fonti e paleografia*, 46, no. 53. Baroffio lists it as “Milano, Coll. Grassi (già?)” in his “Iter Liturgicum Ambrosianum: Inventario sommario di libri liturgici ambrosiani,” *Aevum* 74 (2000): 587. In an updated online version of this inventory Baroffio identifies MS Lat 388 as “Milano, olim Coll. Grassi (olim Varese Bianchi).” ([spfm.unipv.it/baroffio/materiali/IterLitAmbr.rtf](http://spfm.unipv.it/baroffio/materiali/IterLitAmbr.rtf)).

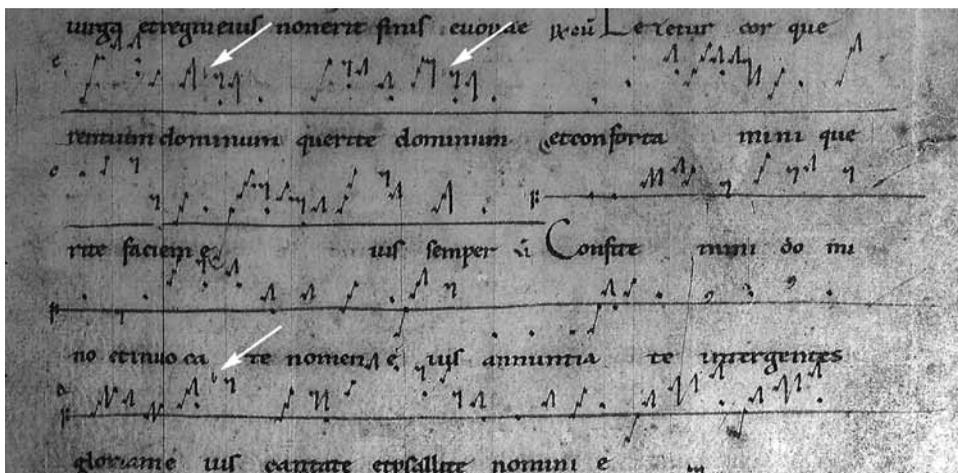


FIGURE 3.2 Signed B-flats in Vatican City, Biblioteca Apostolica Vaticana, Vat. lat. 12932, fol. 16r

contain a red line a fourth above F—at B, or rather, as the tritones outlined by the passages in figure 3.3 would suggest, at B-flat.<sup>13</sup> Overall there are seven places in MS Lat 388 where B-flat seems to be indicated by red lines, and these together mark some sixteen notes. The scale, then, is not nearly akin to that of the green lines in Add. 34209, but the phenomenon of marking B-flat with a colored line is the same.

Significantly, all B-flats marked in red in MS Lat 388 are also marked, in green, in Add. 34209. Furthermore, there is no indication that the red lines of MS Lat 388 might be later: here, ink and style match. This circumstance, combined with the evidence of Vat. lat. 12932, calls for a careful look at B-flat lines in these sources, whether red or green, and ultimately demands that we think more broadly about the processes of addition and edition in the creation of early Ambrosian antiphoners.

### CLEFS AND LINES IN AMBROSIAN MANUSCRIPTS

All four manuscripts under consideration use the system of cleffing introduced by Guido of Arezzo. In addition to letters that act as clefs, Guido recommended that colored lines be used to indicate the pitches of staff lines: red for F and yellow for C. Ambrosian manuscripts do indeed follow these guidelines, but I suggest that we nuance the terminology slightly to admit of two kinds of colored lines, which I will call *axis lines* and *reference lines*. The *axis line* is a line that is drawn regardless

13. My interpretation of these lines agrees with Moneta's reading of a similar passage in Varese, Sacro Monte, jemale A. Cited in Huglo, *Fonti e paleografia*, 224, no. 65.

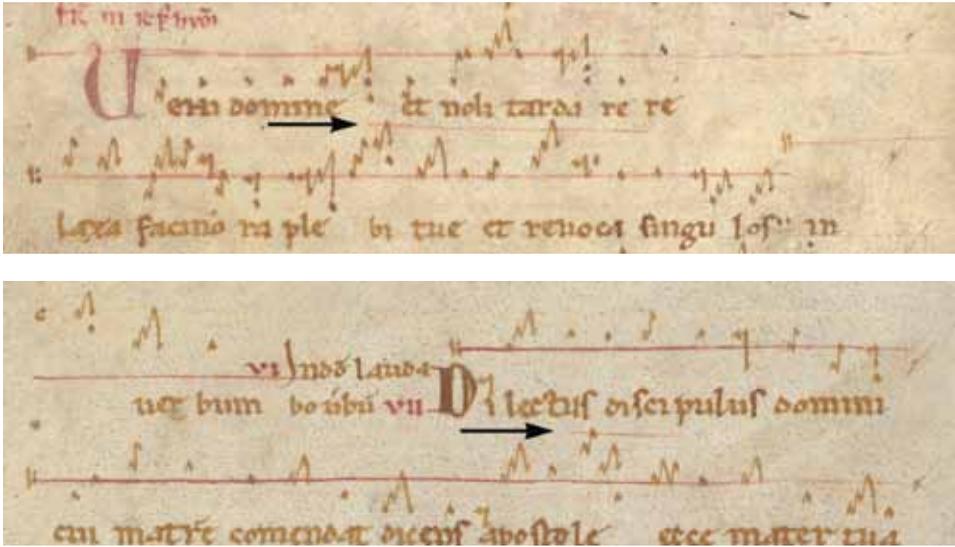


FIGURE 3.3 Red B-flat lines in Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fol. 44v, 4 × 16 (above), and fol. 64r, 4 × 14 (below)

of whether or not its pitch is sung. For instance, in the top line of figure 3.4, the F never sounds but the F axis line is present. The axis line can indicate either an F (red) or a C (yellow), and when the chant is located in and around the pitch-space between F and C, both lines are present. However, when the chant has only C as an axis line, the F line is drawn as necessary, for reference, when the chant goes up to F. I will refer to these shorter lines, which play the part of ledger lines within the two-line Guidonian staff, as *reference lines*.<sup>14</sup> Most reference lines are red lines on F, and their function is to remind us that a half-step is located between the line and the note beneath it. B-flat lines could, by this definition, be extensions of the cleffing system—a B-flat reference line, like the one on F, warns of the half-step below.

This is how we ought to understand the red lines in MS Lat 388 and, indeed, the green lines in Add. 34209. But while the former seem indigenous to their surroundings, the color of the latter gives pause: why do they have to be green? While green seems like a strange choice, we should remember that, after red and yellow, it was the most common colored pigment available to scribes, and many eleventh- and twelfth-century manuscripts use these three colors in their

14. A further distinction between axis and reference lines is that the former are almost always on a dry-point line, which adds to their stability. Reference lines, on the other hand, may be in spaces. When this rule is broken, mistakes are made, as in MS Lat 388, folio 110.

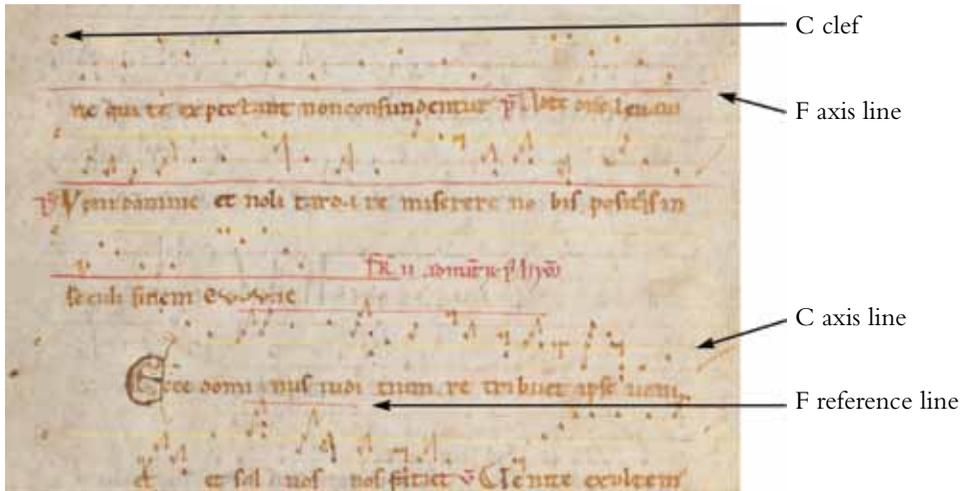


FIGURE 3.4 Cleffing in Ambrosian manuscripts: Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fol. 43v, 10 × 16

decorations.<sup>15</sup> In some cases, it seems, green may even have been more available than yellow: the makers of a twelfth-century troper-proser from Saint-Évroult chose to use green, rather than yellow, for C lines.<sup>16</sup> However, pigments are not all created equal, and colored inks especially can have idiosyncratic effects on the parchment to which they are applied. In the London manuscript, the lines seem like outsiders because they are thick and seem haphazardly applied to a manuscript that is otherwise carefully executed. But this seeming haphazardness has to do with the nature of the green ink: in many places, the pigment has bled through the parchment or spread, leading to wider lines in the process (fig. 3.5). Indeed, where the green lines have not bled, they look almost as careful as the red lines that surround them (as in fig. 3.1).

15. For example, see the full-page illustration on folio 39v of the eleventh-century gradual of Santa Cecilia in Trastevere, reproduced in color in Max Lütolf, ed., *Das Graduale von Santa Cecilia in Trastevere (Cod. Bodmer 74)*, Bibliotheca Bodmeriana 2 (Cologny-Genève: Fondation Martin Bodmer, 1987).

16. Paris, Bibliothèque nationale de France, MS lat. 10508. For a reproduction, see Heinrich Bessler, Max Schneider, Werner Bachmann, and Bruno Stäblein, *Musikgeschichte in Bildern*, Band 3, *Musik des Mittelalters und der Renaissance*, Lieferung 4, *Schriftbild der einstimmigen Musik* (Leipzig: Deutscher Verlag für Musik, 1975), 119. Stäblein says that the green line and the red F line were both “nachgefärbt,” but I believe that the findings presented below may call for a reevaluation of this claim. I am grateful to Joseph Dyer for bringing this source to my attention.

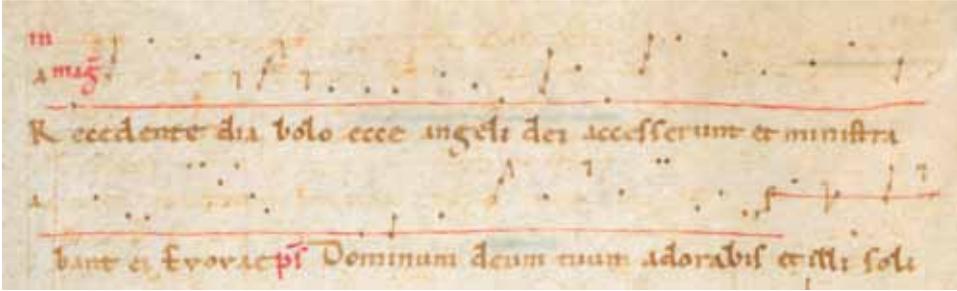


FIGURE 3.5 Bleed-through of green lines in London, British Library, Add. MS 34209, fol. 75v (p. 150), 3 × 11

The pigment in question is verdigris, a manufactured copper acetate that was popular in book and panel painting throughout the Middle Ages. While the ink must have appealed to artists because of its lightfastness and attractive blue-green hue, it is notorious for its instability and corrosive qualities, its tendency to bleed through parchment, and its unpredictability:

Sometimes it has corroded the parchment, eaten into it, so that the painted parts actually drop out and leave gaps in the page: and sometimes it has behaved quite quietly, and stayed in place, and kept its transparent blue-green color without any of these distressing accompaniments. . . . The accidents of time affect no other pigment so generally or so disastrously as verdigris.<sup>17</sup>

A similar bleed-through process can be observed in another Houghton manuscript, an eleventh-century leaf from a Beneventan missal (MS Typ 701, fig. 3.6). Here, it might also be tempting to call the mess created by verdigris bleed-through a “later” addition, but it is clearly integrated into the design of the page: the pigment highlights the beginning of each sentence and adds definition to the bovine evangelist at bottom left.<sup>18</sup>

Returning to Add. 34209, we can make one more observation: the green of the decorated initials and that of the green lines is the same hue. True, the pigment looks more opaque in some of the backgrounds to initials, but this is in part due to concentration of paint: while the green of the B-flat lines is meant to be transparent, so as not to obscure the notes it modifies, color added to initials is

17. Daniel V. Thompson, *The Materials and Techniques of Medieval Painting* (New York: Dover Publications, 1956), 165–166.

18. Significant bleed-through can also be observed in the Saint-Évroult manuscript—see note 16, above.

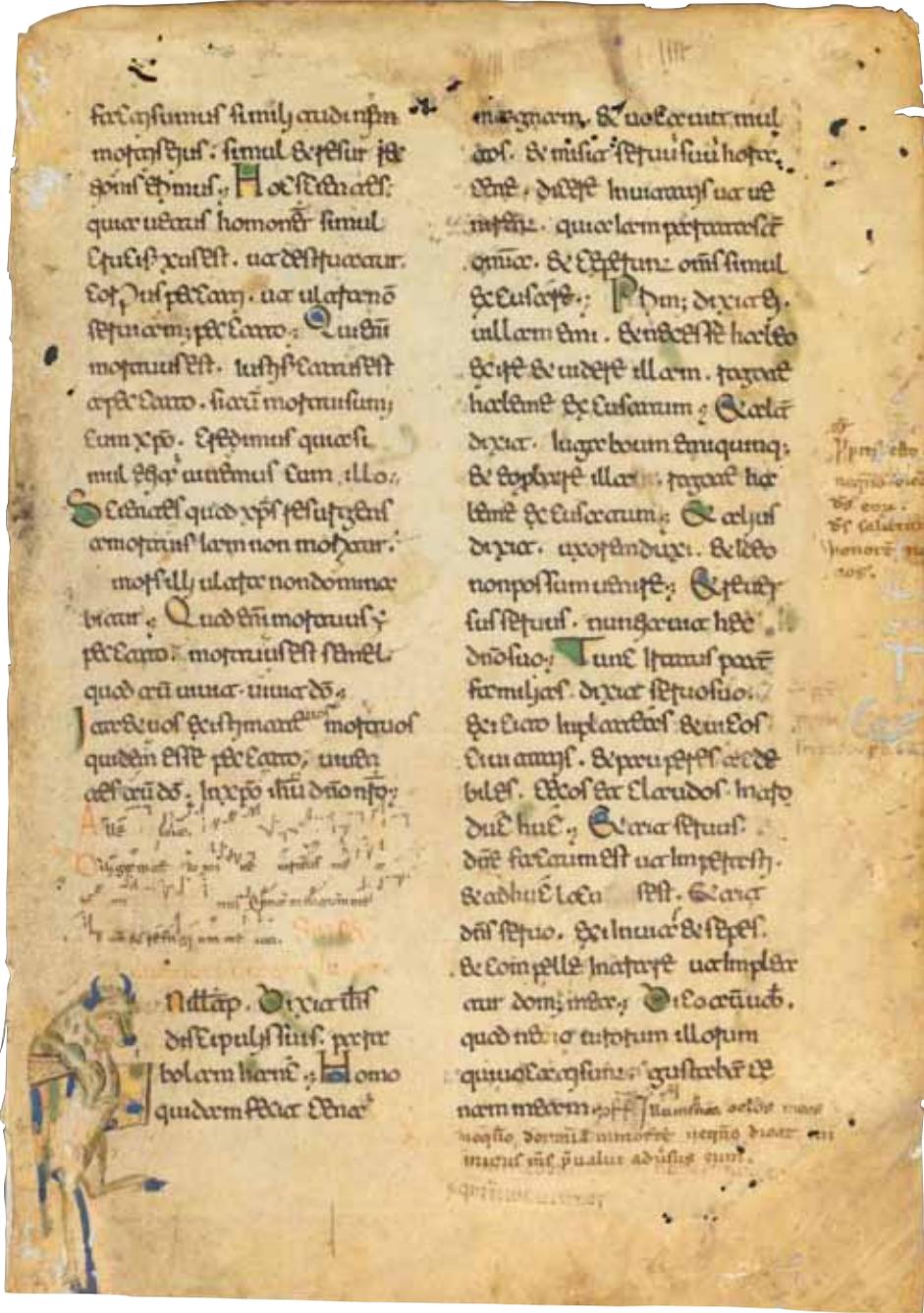


FIGURE 3.6 Cambridge, Mass., Harvard University, Houghton Library, MS Typ 701, 36 × 25

meant to be bold. A decorated *O* on folio 76 uses a more diluted form of the pigment, maybe because its animal subject matter calls for depiction rather than decoration (fig. 3.7). Here we can easily observe the identity of hue between the illumination and the B-flat reference lines.



FIGURE 3.7 London, British Library, Add. MS 34209, fols. 75v–76r (pp. 150–151), 5 × 7

Another indication that the green pigment used for the decoration of initials could be transparent as well as opaque comes from an unfortunate *C* on folio 89v of Add. 34209, which boasts green polka dots on a yellow background (fig. 3.8). In this example, it is easy to see that the yellow background of the *C* matches the *C* axis lines, while the green of the polka dots matches the B-flat lines.<sup>19</sup> Even for verdigris, the dots here seem to have bled quite a bit, which suggests that the yellow background may still have been wet when the green was applied. This in turn raises questions about the knowledge and ability of the manuscript's scribes when it came to decoration. It seems likely that pigment was applied not by artists but by music and/or text scribes, and that we might be mistaking for carelessness or

19. The red of the initial's border seems to match that of the rubrication and probably that of the *F* axis lines.

later vandalism something that is in fact a messiness resulting from inexperience—a point to which I return below. For now, we may simply note the identity in hue between the colored initials and the green lines. The possibility that the B-flat pigment may in fact have come from the same pot of ink as the dragon and the polka dots strengthens the suggestion that green reference lines were part of the original design of the manuscript.

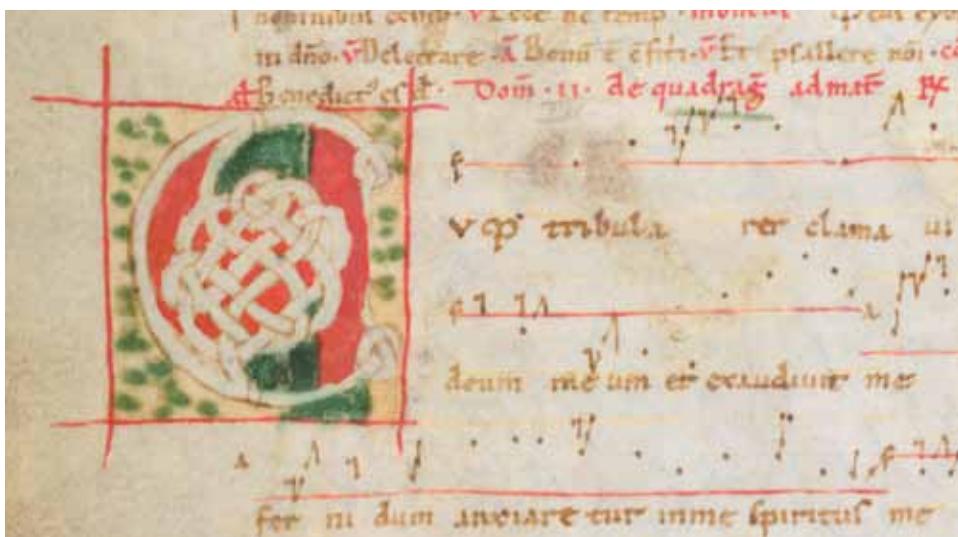


FIGURE 3.8 London, British Library, Add. MS 34209, fol. 89v (p. 178), 5 × 10

The affinity in color between decorated initials and green B-flat reference lines also suggests that the lines might have been applied at the same time as color to the initials. But is it possible that the initials too were colored by a much later hand? In fact, could all color, whether green, red, or yellow, be a later addition to Add. 34209?

There are indeed documented cases of lines having been added to chant manuscripts by later hands. A case in point, and a relatively local one, is the addition of colored lines to Benevento, Biblioteca Capitolare, MS 38. Thomas Forrest Kelly has noted that red F lines there were added, probably in the thirteenth century, to those chants still being sung.<sup>20</sup> However, the analogue to Add. 34209 is not exact. Beneventan notation was older and less disposed to Guidonian innovations. Milanese notation, on the other hand, exists only on staves and “seems to have

20. Thomas Forrest Kelly, *Paléographie musicale* 21, *Les témoins manuscrits du chant Bénéventain* (Solesmes: Abbaye Saint-Pierre, 1992), 349–350, 52–53.

been newly created at the time when the staff was introduced.”<sup>21</sup> Still, the question remains, are axis and reference lines later additions to Ambrosian manuscripts, or do they represent a part of the original scribal plan? Here again, MS Lat 388 provides some compelling answers.

### THE CASE OF THE MISSING RED LINES

On five folios of MS Lat 388 red lines—whether axis or reference—are entirely missing. Four of these fall on complete openings (80v–81r and 83v–84r) and the fifth, folio 78v, faces a folio whose red lines begin a third of the way down the page and are different in quality and color from the others in the gathering, strongly suggesting addition at a separate stage. Thus there are three openings on which the scribe(s) initially neglected to draw F lines (one of these is reproduced as fig. 3.9).

On the face of it, such lacunae would suggest that axis and reference lines are indeed a later addition to MS Lat 388. However, several important details about the omission should be noted. First, all openings missing red lines are found in gathering II of the manuscript.<sup>22</sup> Encompassing folios 77–84, this is the last gathering written by the first of two main scribal hands in the manuscript. It is possible that this particular gathering was rushed, perhaps by whatever circumstance necessitated the change of hand in the first place. Or perhaps the reverse is true—that the change of hand was necessitated by the carelessness of the initial scribe(s). Certainly, the portion of the book written by the smaller hand, which takes over on folio 84r, is not subject to the kinds of corrections evident in the first half of the manuscript. Thus the transition seems likely to be from a less to a more experienced scribe—perhaps from student to teacher. If so, we may view the lack of red axis lines as a final straw.

Furthermore, although red lines are missing, yellow axis lines are present on these folios.<sup>23</sup> The openings thus cannot support the lateness of all colored lines. Even more significant is a series of irregularities in rubrication and in the drawing

21. Though Kelly’s contribution to this volume suggests that Ambrosian notation may be older than previously suspected. For the received view, see David Hiley and Janka Szendrei, “Notation, §Iii, 1(V): Plainchant: Pitch-Specific Notations, 11th–12th Centuries: (D) North Italy, Including Milan,” in *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie (London: Macmillan, 2001), 189.

22. I am grateful to Ryan Bañagale for his detailed codicological examination of MS Lat 388.

23. Due to its light color, it is difficult to speculate about whether yellow has been added under or over the notes, but indirect evidence suggests that the former may have been the case. For instance, folio 9r has a passage in which a yellow reference line has been drawn in but not used; such a mistake could hardly have been made after the chant had been notated. Additionally, the stopping points of yellow lines tend to be less controlled than those of red; on two adjacent systems of folio 10v, yellow axis lines continue several inches past clef changes that make them obsolete.

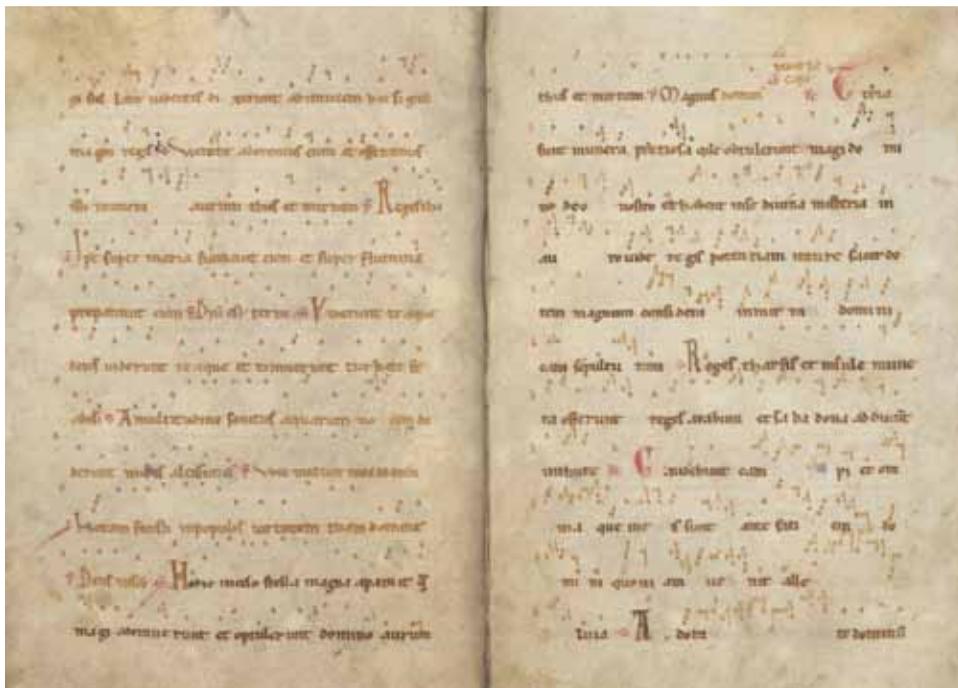


FIGURE 3.9 Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fols. 80v–81r, 25 × 35

of majuscule initials that would normally be red. On folios 80v–81r, for instance, the red ink is smudged and uneven, and possibly of several hues. Folio 83v is even more telling: here, a red hand has twice traced over brown rubrication—once for the responsory *Viderunt*, and again for the verse *Inluxerunt* (fig. 3.10). In both cases, the original brown rubrication was correct in its genre designation, but incorrect in its color, since rubrication is in red throughout MS Lat 388 and within the wider manuscript corpus. The *V* in *Viderunt* is also drawn by an incongruous and shaky hand in a space that had been left for a red majuscule incipit.<sup>24</sup> A similar situation exists on folio 78v, where a darker brown rubric and a brown letter *S* in a clearly different hand replace the rubric “cañt,” and the *S* in *Super flumina*—a letter that should certainly have been red because it heads the first item of a mass (fig. 3.11).<sup>25</sup>

In short, much of what should be red on those folia missing F lines was in fact written awkwardly in brown and only sometimes retraced in red. And those red rubrications that are not tracings appear to be drawn on top of erasures—again, very likely erasures of text erring in color rather than content. The inescapable

24. We know that the letter should have been red because “responsoria ad lectio” and “cum infantibus” (this one is both) generally begin with red initials; compare folio 88.

25. Compare the red initial of the ingressa *In conspectu* (fol. 76).



FIGURE 3.10 Initials of responsory *Viderunt*,  $1 \times 3.5$  (left) and verse *Inluxerunt*,  $1.5 \times 4$  (right): Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fol. 83v

conclusion is that folios 78v, 80v, 81, 83v, and 84 were at one stage missing not only their F lines but also any trace of red ink. This suggests that the F lines, rubrication, and red majuscule letters were (at least in this case) part of a single copying stage. The only other possible conclusion—that these folia were skipped during rubrication and then coincidentally skipped again some years later when red F lines were added—is highly improbable. We must assume then that red lines are original to the manuscript and that their omission is as unnatural as would be the antiphon *Uper flumina Babylonis*—not disastrous, since we know to supply the S, but certainly not intentional.

The haphazard approach to axis and reference lines demonstrated by the lacunae in the eleventh gathering is by no means typical of MS Lat 388. Though the unit of omission there is the opening, elsewhere in the manuscript there is every indication that axis lines were drawn with care, often separately for each piece.<sup>26</sup> The lines were even subject to correction: on folio 50, mistakenly drawn-in red lines are crossed out, and new ones added.

One other fact connected with cleffing remains to be mentioned, and this has to do with the layering of inks. Even a cursory glance at MS Lat 388 reveals that the manuscript has been subject to many corrections, additions, and re-tracings

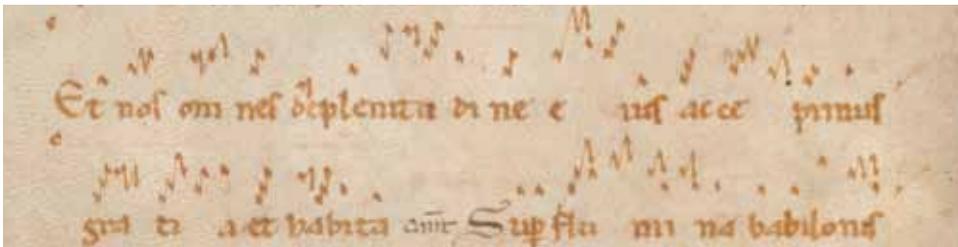


FIGURE 3.11 Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fol. 78v,  $4 \times 15$

26. See, for example, *Letamini* (fol. 57).

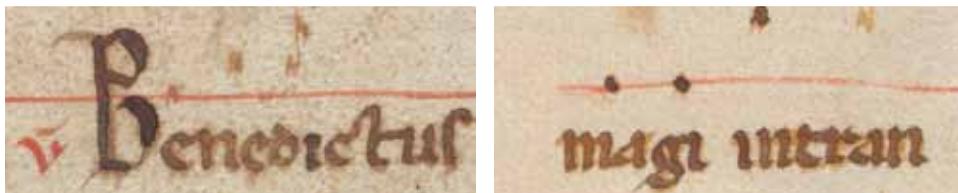


FIGURE 3.12 Red Lines drawn on top of light-brown ink in Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, details of fol. 4r, 1.5 × 3 (left) and fol. 83r, 1.5 × 3.5 (right)

by darker inks. One obvious explanation is that the light brown ink in which the manuscript was originally written faded with time, necessitating tracing with darker pigments. However, the layering of red lines and corrections does not support such a hypothesis. Most red lines lie on top of the lighter brown ink of notes and under the darker correcting hand, as might be expected (fig. 3.12). But there are several exceptions—places where red lines are drawn *over* the correcting ink. Folio 64v defies analysis in having both versions in quick succession—a passage where red ink is layered over the corrections, and another in which corrections clearly appear to be overlaying red ink (fig. 3.13). In fact, there are exceptions to almost any claim that can be made about the layering of inks in this manuscript, leading to the strong possibility that the first layers of correction (the tracings over with dark ink) were correctives not to ink that had faded with time but to ink that was too light to begin with (perhaps another sign of the initial scribe's inexperience or extreme age). Writing out and proofreading were two consecutive or nearly consecutive steps in the creation of MS Lat 388.

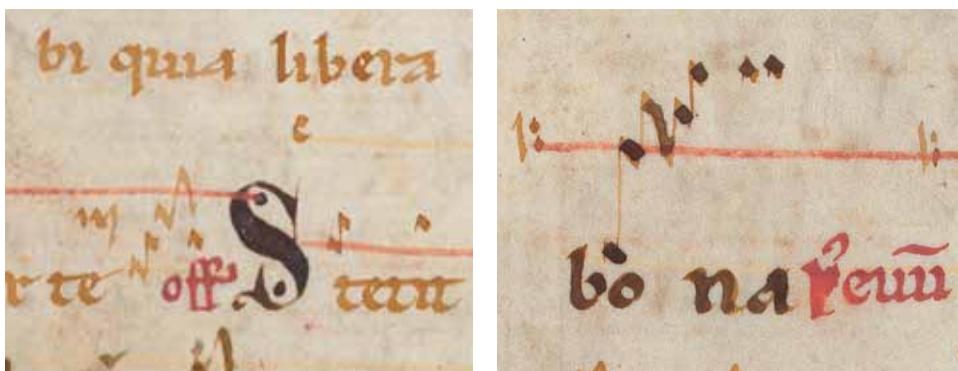


FIGURE 3.13 Ink layering in Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388: red ink over corrections on fol. 64v, 3 × 4 (left); corrections over red ink on fol. 64v, 2.5 × 3 (right)

## STAGES OF ADD. 34209

For Add. 34209, it is also possible to show that the red lines were added at an intermediate stage in the manuscript's creation. A detail on folio 51r shows that the red axis lines were put in after the illuminated capitals were drawn but before they were colored in (see fig. 3.1). Here, the scribe has allowed the F axis line above "solus" to dictate the bottom border of the initial, which seemingly skips the clef, becomes a red F line, and ends in a custos and an A clef. Because of this, the yellow background on the left half of the initial ends lower than the purple background on the right. The example also implies that the intricate *B* was drawn before notation was added, since the A clef is superimposed upon it: surely the artist could have avoided the clef if it had been there first.

This moment suggests a likely order of operations for the creation of the manuscript. First, the text was written and illuminated letters were drawn but not yet colored. Second, notation was added. Third, red ink was applied, including rubrication, the red borders of initials, and F lines. Fourth, yellow ink was applied, including decorations and C lines. Finally, the other colors used in the decoration of initials were applied in turn, and green lines were painted in. The last stage was not a terribly artistic process, as evidenced by the sloppy application of paint to many of the illuminated initials (including those in figs. 3.7 and 3.8). Indeed, as I have suggested, the application of color to the letters may well have been done by a music scribe—a possibility that would explain the messiness of the backgrounds when compared with the neat letters that they enhance.

The final pages of Add. 34209 argue most eloquently against the late addition of green lines (or of any lines, for that matter) to the manuscript. Starting with folio 134v, extra material is added to the manuscript in six stages, each of which has its own ruling practices, script, and set of inks. In the responsory *Venite exultemus*, red F axis lines are consistently used (fig. 3.14, region A). The next piece, *Desiderabilia sunt*, is written by a smaller hand and in a darker ink, with no F or C lines (fig. 3.14, region B). Next come two alleluias that use red F lines (fig. 3.14, region C, continued in fig. 3.15, region A).

The next alleluia again uses no axis lines of any sort (fig. 3.15, region B). The following one, in a large and messy hand, uses red and yellow lines, and fills in the two A's of *Alleluia* with yellow paint (fig. 3.15, region C). On the last page, a large but controlled hand uses no red or yellow lines—in fact, no color at all (not pictured). No one drew in green lines on these final pieces, nor did they even supply uncontroversial red F lines. In short, we have no evidence for the later addition of colored lines to this manuscript.

**A**

*Regni* venite exultate mis in do mi na  
 tubite mis de a saluta ri no stro A venite  
 te exultate mis in do mi no veniens  
 a mis fa nem eius in on se si a ne  
 uenire exultate mis in do mi no

**B**

*D*esponsationis sunt des manna ex tu a super aly lapides  
 precio sum 7 dolio in sup mel 7 fauim. Sup saluare  
 nam pom ne exulta ut dea tus ambrosius uoluntate  
 labiorum eius non sinuasti cum magna est gloria eius in  
 glori sua. *Ave* tu sa

**C**

FIGURE 3.14 London, British Library, Add. MS 34209, fol. 134v (p. 268), 22 × 14

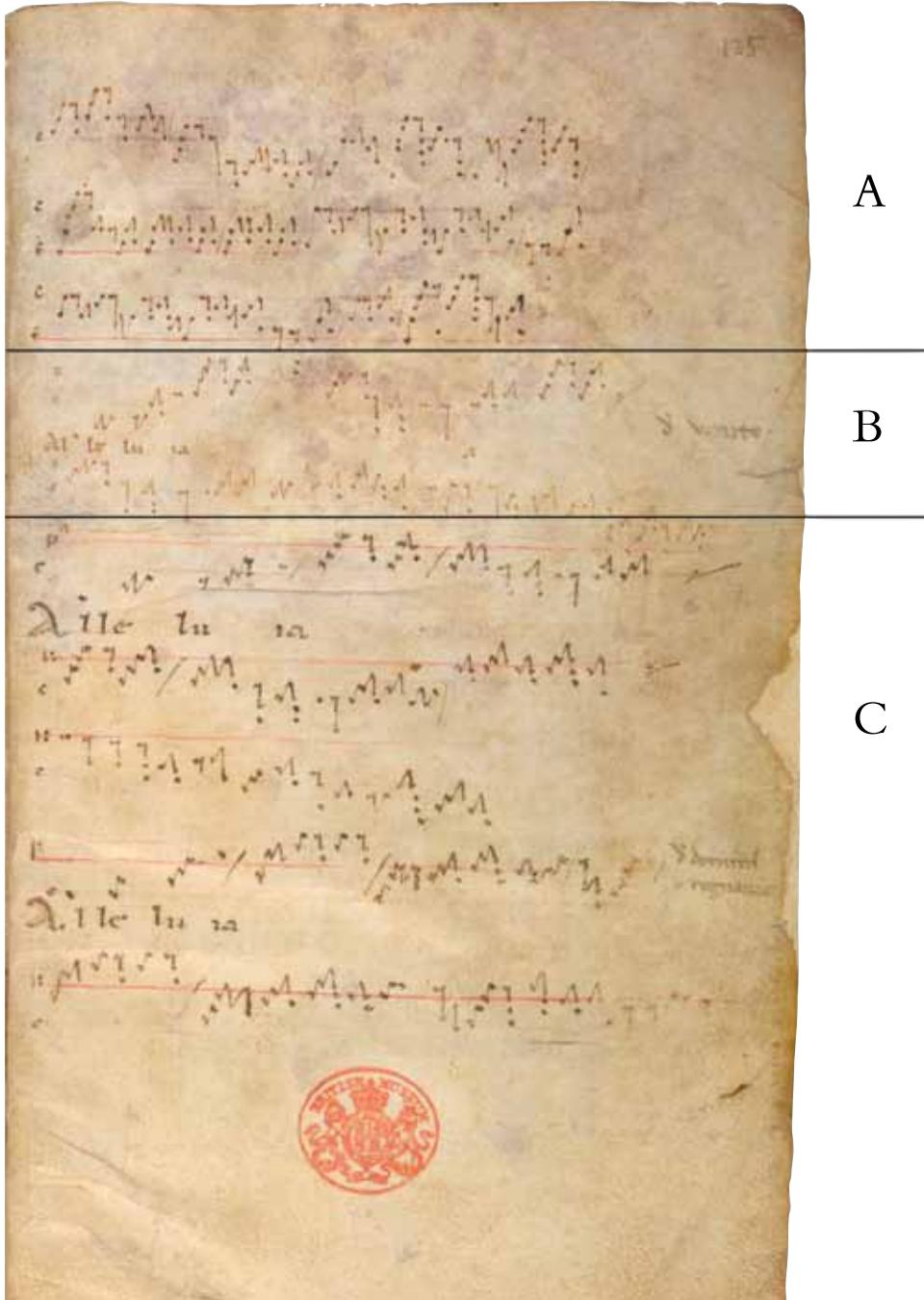


FIGURE 3.15 London, British Library, Add. MS 34209, fol. 135r (p. 269), 22 × 13

## PROOFREADING WITH COLOR

One final observation strengthens the case for the early addition of green lines to Add. 34209 while simultaneously raising the much broader issue of their purpose. So far, discussions of the green ink have been limited to B-flat lines. However, in at least one case its purview extends to the neumes themselves: on folio 62v, two forgotten Gs set to the word “dei” have been written in green ink (fig. 3.16). The edition in *Paléographie musicale* includes these notes without remark, perhaps because the editor was partly relying on a black-and-white film. Clearly the two notes are supposed to be there: a clef change exists after them in order to accommodate them, and the custos on the previous line points to G. Furthermore, the reading of two Gs on “dei” is confirmed by MS Lat 388 (fig. 3.17). In this case, then, the person writing with green ink in Add. 34209 has acted as a proofreader. The antiphon is not complete in the London manuscript without its green notes.

Strange as the use of a cleffing ink for proofreading might seem, there is in fact an analog to this practice in Milan II.F.2.2. In this manuscript too scribes used colored ink both to indicate and to correct pitch. While most clefs here, as in Add. 34209 and MS Lat 388, are written in the same brown ink as the notes, twenty-two folios contain C clefs drawn in red ink. Sometimes, these clefs were added in

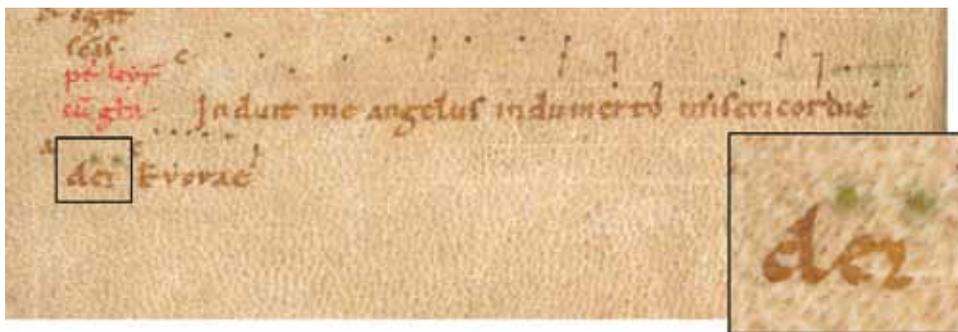


FIGURE 3.16 London, British Library, Add. MS 34209, fol. 62v (p. 124), 3 × 10

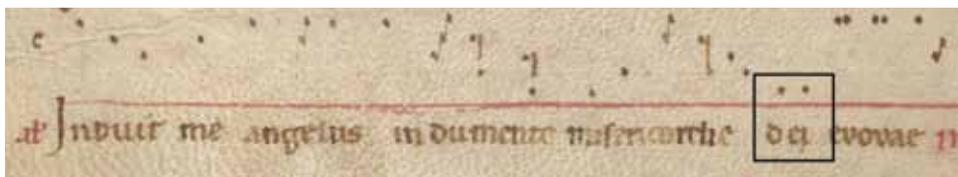


FIGURE 3.17 Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fol. 91r, 2 × 13

red simply because there was no clef present.<sup>27</sup> Like the green Gs on “dei” in Add. 34209, the editor is here supplying missing content with whatever ink color he happens to have in his hand. But in other cases the hand wielding red ink actually changes the clef, and these changes are always from F to C (as in figs. 3.18 and 3.19). In figure 3.18, the clef change may be a simple correction, since the custos of the previous system indicates that the first note of the next system should be a D, not the G that would have resulted from the original clef.<sup>28</sup> However, the change in the passage shown in figure 3.19, along with many others in the manuscript, is musically motivated.

Let us focus on a single piece, the responsory *Ecce Dominus dominator* (fig. 3.20). In Milan II.F.2.2, the F clef on the second system has been changed to a C clef by a red hand, with the result that what would have been a B-flat on “altissimi” [*sic*] is now an F. The opening of the piece also uses a red reference line on “Dominus,” implying that the clef at the beginning of the system is no longer

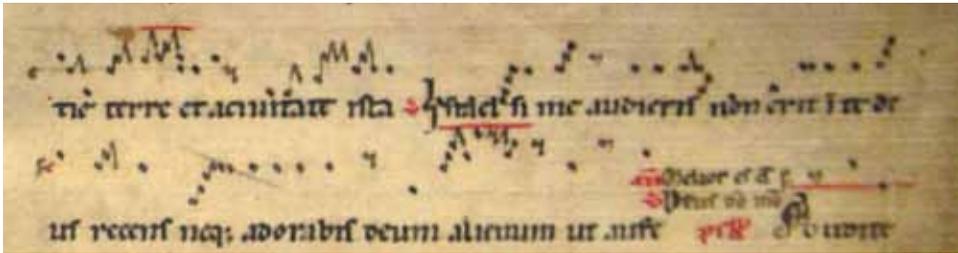


FIGURE 3.18 Milan, Biblioteca Capitolare, II.F.2.2, fol. 76r, 4 × 14

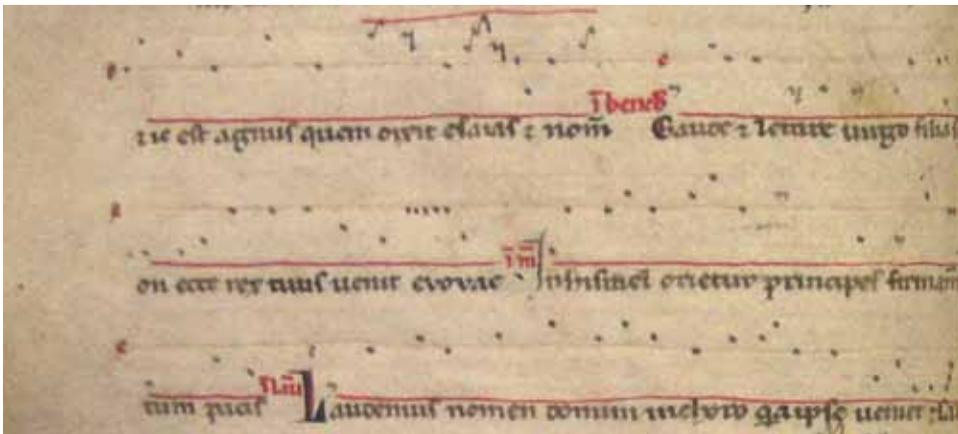


FIGURE 3.19 Milan, Biblioteca Capitolare, II.F.2.2, fol. 33v, 7 × 16

27. As on folio 36.

28. The same passage in MS Lat 388 is transmitted with a C clef throughout.

in effect. Clearly the proofreader noticed a problem with the original notation while adding red lines to the manuscript during a late stage of its production. That problem was the melodic tritone on “Dominus,” and the solution was to switch the clef from F to C, automatically converting every B to an F.

In Add. 34209 the problem is solved in a different way. Allowing the F clef to stand, the scribe added his usual green B-flat line (gray in the reproduction in fig. 3.20). Interestingly, MS Lat 388 also uses an F clef and a B-flat reference line at this point (fig. 3.20, bottom image), though the lack of F axis line in the top system makes it look more like the re-cleffing in Milan II.F.2.2. However, there is an F clef to the left of “Ecce,” and the corresponding custos is true to that clef.

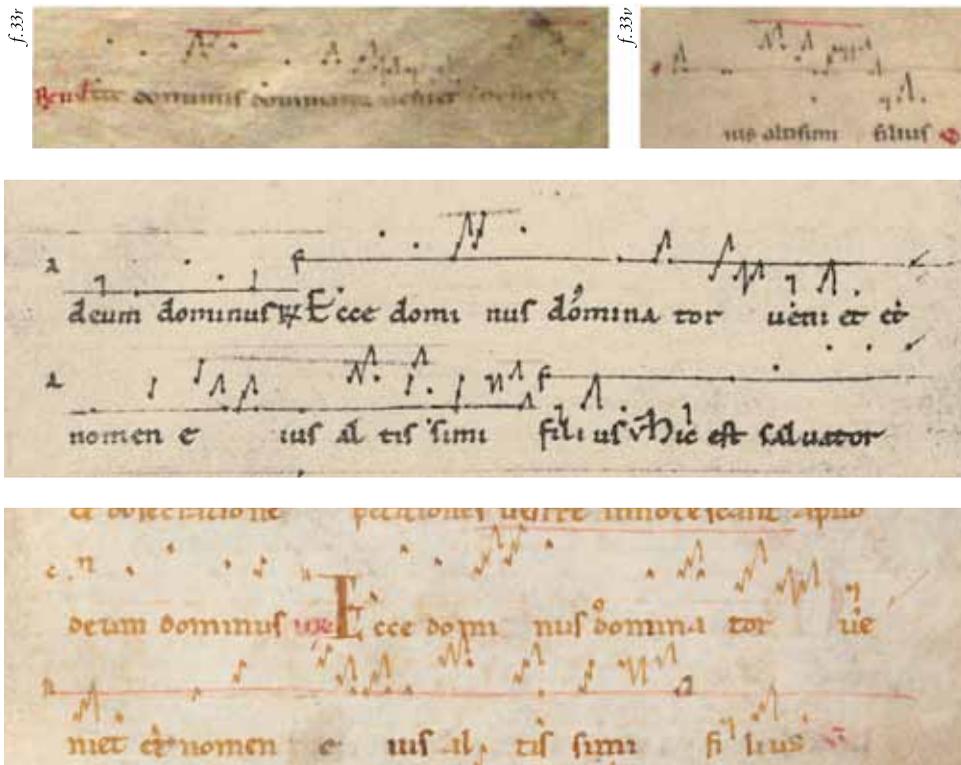


FIGURE 3.20 The responsory *Ecce Dominus dominator* in Milan, Biblioteca Capitolare, II.F.2.2, fol. 33r–v,  $3 \times 13/3 \times 7$  (above); in London, British Library, Add. MS 34209, fol. 23r (p. 45),  $3 \times 11$  (middle); and in Cambridge, Mass., Harvard University, Houghton Library, MS Lat 388, fol. 44r,  $4 \times 16$  (below)

Comparison of this passage across three manuscripts shows that each scribe’s approach is essentially the same: with a colored ink used primarily for drawing axis and reference lines, they engage in an act of musical proofreading to change the offending tritone into a fourth.

What is interesting here is not only that each source shows evidence of steps taken to correct or clarify a difficult passage but that in each case the corrections can be dated—based on the various paleographical observations presented above—close to the manuscript’s initial creation. The red Cs of Milan II.F.2.2, the green lines of Add. 34209, and the red lines of MS Lat 388 are not the work of “une main très postérieure”; rather, they were drawn in by a hand only slightly later than that which wrote the notes.

I would suggest that there is a difference in kind, and not just in degree, in scribal corrections that are part of a manuscript’s initial copying, and those that are entered in by later, unconnected hands. Changes made later in the history of a manuscript may suggest changes in the ways of singing or in repertory or the atrophy of memorial archives and increased dependence on written music. On the other hand, if these lines are original to the mid-twelfth century, we can get a coherent idea of the repertory at the time of this manuscript’s creation. Pinning down this chronology allows us to make more sense of the complicated collection of interdependent markings that constitutes this nine-hundred-year-old object. It also reminds us that the original makers of these books did not leave it to later ages to add specificity or increase accuracy: they did their own work, and the marks of their editors need not be read as hands from the future disciplining the texts of the past.

### THE EDITOR AS MUSICIAN

An inquiry into the layering of inks in sources that are nearly nine hundred years old may seem self-indulgent, but the issues raised by this investigation of scribal roles take us beyond the page and into the mind of the scribe at a particular moment. Can we hear his thoughts? By way of concluding, I would like to dwell a little on the process of adding these clefs and reference lines in the context of medieval reading practices.

Recent studies of premodern literacy have greatly enhanced our understanding of how medieval readers interacted with their texts. It is clear that reading was, until the late Middle Ages, an oral and aural process.<sup>29</sup> Often it was done in groups, and when text manuscripts were copied, the process was one of dictation rather than silent transcription. Thomas Aquinas made notes for himself

---

29. Paul Henry Saenger, *Space between Words: The Origins of Silent Reading, Figurae*, Reading Medieval Culture (Stanford, Calif.: Stanford University Press, 1997). This may not have been the case in antiquity, however. See M. F. Burnyeat, “Postscript on Silent Reading,” *Classical Quarterly* 47, no. 1 (1997): 74–76. The view stemmed from studies of literacy in classical antiquity and was later extended into the Middle Ages and sometimes even as late as the seventeenth century. A. K. Gavrilov summarizes the history of the idea for classical studies in “Techniques of Reading in Classical Antiquity,” *Classical Quarterly* 47, no. 1 (1997), 56–57.

and then dictated to his secretaries,<sup>30</sup> and as a young man Augustine famously puzzled when he saw Saint Ambrose reading silently.<sup>31</sup> Perhaps, Augustine suggests, Ambrose did not want to be interrupted by requests to explain some obscure passage in his readings. “Besides, the need to preserve his voice, which used easily to become hoarse, could have been a very fair reason for silent reading.”<sup>32</sup> Reading—at least a certain, common kind of reading—could make one’s voice tired, and we can imagine medieval libraries as buzzing with murmurs well into the twelfth century, before gradually falling silent.

Manuscript copying too changed over the course of the High Middle Ages. Paul Saenger notes that a “transition from oral to visual modes of book production” was already underway in the twelfth century, when there are accounts of copyists working *in silentio*.<sup>33</sup> The result of this more visual mode of copying was that texts could be transmitted without comprehension, and Petrarch commented pejoratively about scribes who were mere “painters” because they copied texts by sight without understanding them.<sup>34</sup>

But if copying text was on its way to being a silent process in the scholastic atmosphere, it seems that the copying of music lagged slightly behind—neumatic notation was, after all, still a relatively new alphabet at the beginning of the twelfth century. Elizabeth Eva Leach locates the shift to a “mechanical, visually based copying” of music to the late Middle Ages, citing John of Tewkesbury’s 1351 complaint that “all the *notatores* are not singers nor scribes: they are clerks, in truth they are painters.”<sup>35</sup>

---

30. Mary Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture*, Cambridge Studies in Medieval Literature 10 (Cambridge: Cambridge University Press, 1992), 4.

31. This passage has been traditionally read as Augustine’s first encounter with silent reading; for a more nuanced view that diminishes its importance as evidence for the rarity of silent reading, see Gavrilov, “Techniques of Reading in Classical Antiquity,” 61–66.

32. Augustine, *Confessions*, trans. Henry Chadwick, Oxford World’s Classics (Oxford: Oxford University Press, 1991), 93.

33. Saenger, *Space between Words*, 252.

34. Even later Jean Gerson would echo this complaint; *ibid.*

35. “Omnes notatores non sunt cantores, nec scriptores sunt clerici, vere, pictores enim sunt”—the statement is a response to poor coordination of syllables and notes; Elizabeth Eva Leach, *Sung Birds: Music, Nature, and Poetry in the Later Middle Ages* (Ithaca: Cornell University Press, 2007), 113. There is also some manuscript evidence of “mechanical” music copying in the fourteenth century. As Friedrich Ludwig first noted, the Machaut manuscript B is a copy of the source Vg “qui s’efforce de reproduire exactement l’original,” to the extent of precisely replicating gathering structure, page layout, and line-ends. “La musique des intermèdes lyriques dans le Remède de Fortune,” in Ernest Hoepffner, *Oeuvres de Guillaume de Machaut*, vol. 2 (Paris: Firmin-Didot, 1911), 408–409. As Margaret Bent has since shown, such “careful” copying may well have been a result of ignorance on the part of the scribe, who indifferently aligned music and text, and in some cases copied the notes from one piece over the words to another; “The Machaut Manuscripts Vg, B and E,” *Musica Disciplina* 37 (1983): 56–57.

This complaint about music scribes serves as useful evidence of an earlier norm that was being breached: *notatores* should be singers since musical literacy would improve their product. And it is hard to imagine the twelfth-century copyists of Add. 34209 as anything other than scribe-singers creating books for their own use or the use of nearby communities. The very defects of their work—inelegant script, clumsy decorations, crooked lines—hint that their expertise was perhaps to be found elsewhere.

Musical expertise would also act as a time-saver. If copying is to be a mechanical process that involves the eyes only, the neume becomes an abstract shape that must be redrawn exactly. But such a method would take much longer: any music scribe, especially one familiar with the repertory he copied, would surely let his voice aid him. Thus a scribe copying chant would very likely be at least humming along, and perhaps fully singing the chant as he wrote—and then again as made corrections and added colored staff lines.

Not all aspects of manuscript copying are equally musical: there is little question that red F axis lines could be added mechanically. I invite my reader to mentally add red lines to MS Lat 388, folio 81 (the right half of fig. 3.9). All that is necessary is to locate the F clefs and extend a line to the right of them until a new clef is given (usually at the beginning of a new piece). Yellow lines would be added in the same way, but with the scribe using C clefs as his guides. In both cases, a ruler, a pen, and a medium level of attention could get the job done.

However, other kinds of corrections would have required full musical concentration. Chief among these was the “thorny” question of B-flat, answered in Add. 34209 by every green line, or by its absence. The “sloppy” lines are perhaps rather just rushed, because they are taking place in real time. And whereas a ruler can be used to draw an axis line, these short reference lines must have been drawn freehand, to connect only those notes on the page that need to be flattened.

When we see these lines, then, we are in a sense seeing a performance. We might even get some insight into phrasing as well as pitch. Consider, for instance, the passage from Add. 34209 reproduced as figure 3.21. Here, we see two green

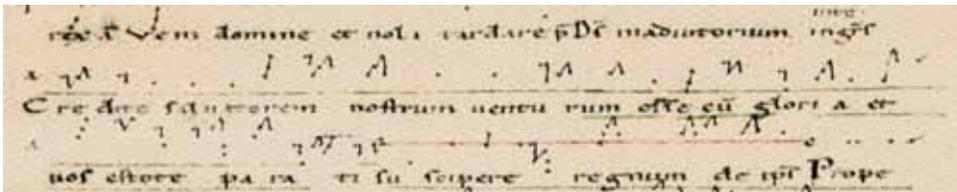


FIGURE 3.21 London, British Library, Add. MS 34209, fol. 19r (p. 37), 3 × 13

lines indicating B-flat that could have been made in one stroke, but were not. Why? I think it likely that our scribe drew as he sang, or sang as he drew. Thus the sometimes sloppy lines of the London manuscript are not an artistic but a musical act—at once proofreading and prescribing; asking and answering in real time that difficult question, How do we sing this note?



I am grateful to Thomas Forrest Kelly for his comments on several drafts of this project and to Joseph Dyer for his careful reading and critique of the present text. I am indebted to Sarah Adams of the Isham Library for ordering materials for my research.