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HOW DID MUSICAL NOTATION TRAVEL? SINGERS, MANUSCRIPTS, AND ROUTES IN ITALY (C. 800-1100)

ABSTRACT

I più recenti studi sulla notazione musicale precedente al sec. XII confermano definitivamente l'ipotesi che le prime forme neumatiche siano originate non da una 'scrittura' bensì da una comune base di convenzioni grafico-musicali, successivamente elaborata da alcuni dei maggiori centri di canto liturgico carolingi. Ciò necessariamente presuppone che vi sia stato, nel corso del sec. IX, una circolazione di competenze e di 'materiali' musicali. Tuttavia, se da un lato una serie di notizie storiche attesta il movimento di cantori e manoscritti già nell'Europa precarolingia, dall'altro solo pochissime fonti notate gettano luce sul vasto tema delle forme e dei modi in cui la musica scritta viaggiava. Rari, inoltre, sono gli esempi di come i cantori potessero relazionarsi con le caratteristiche grafiche di un canone notazionale percepito come 'straniero'. Tre *case-studies* di area italiana – o che ebbero un impatto su centri italiani – saranno analizzati sotto l'ottica della materialità dei vari supporti alla trasmissione manoscritta, valutando inoltre il ruolo di aspetti come la geografia e topografia.

PAROLE CHIAVE materialità, cantori, notazione neumatica, Notker, Nonantola, Guido d'Arezzo

SUMMARY

Recent studies on early music writing definitely confirmed that neumatic notations originated from a common base of graphic techniques for the representation of sounds, rather than from a single 'script'. These conventions were consequently developed and shaped by some of the most important carolingian centers of liturgical chant, implying that an exchange of skills and musical 'materials' took place during the early ninth century. However, while a series of historical records tell of the movement of singers and 'chant' manuscripts already in pre-Carolingian Europe, only very few later notated sources can actually provide information on how written music travelled, and on how singers may have responded to their encounter with a 'foreign' music script. Three case studies of Italian manuscripts – or that had an impact on Italian centers – will be analyzed from the point of view of the materiality of the various supports for the transmission of chant, assessing also the role of geography and topography in the spreading of musical notation.

KEYWORDS materiality, early singers, neumatic notation, Notker, Nonantola, Guido of Arezzo



m T he history of Latin liturgical chant before the ninth century is one of unwritten musical transmission. Surviving evidence with reference to chant informs us more on the history of liturgy than on the actual musical repertory that was sung. Yet, the absence of material evidence for the use of music writing in western Europe before the Carolingians does not mean a complete silence as far as travelling singers and exchanging of 'music books' are concerned. Outlining a pre-history of notated books, however, requires broadening the definition of what constituted a chant book by looking at these objects as early repositories of those texts sung as part of the liturgy. It is a modern assumption that notation is the only vehicle for the transmission of music, and its presence the only possible support to performance: in well-defined early 'chant communities', where a shared musical repertory was ensured by consolidated practices, verbal texts - along with other information such as genre, mode, and liturgical occasion - were sufficient for recalling a particular melody from memory. Under this light, it is possible to look at early historical records about movements of singers and books to appreciate the ways in which a musical repertory circulated, before it was felt necessary to visually inscribe it in liturgical books by means of musical signs.

There would be numerous ways to speak of Christian liturgical chant and how its protagonists, namely singers and written material objects, moved through geographical space. Such a discussion would imply delving into the dynamics of transmission for the communication of musical knowledge, and their intersections with orality, a topic that has been vastly covered in musicological research of the past forty years. Two particular aspects of the written transmission of music in the early Middle Ages, however, have so far received little attention. The first concerns the earliest records of travelling *notated* books, that is cases for which we can reconstruct not only their origin and destination, but also the routes and carriers of such objects, and more importantly the scope of those missions. The second aspect relates to our still largely-spread bias that the diffusion of notated material objects took place mainly through complete, self-standing compilations in book format. This conception – doubtlessly shaped by surviving sources being predominantly chant books or fragments thereof – prevents us from considering the rich, multifaceted types of written material media that allowed the first exchange and transregional/trans-community movement of musical notation, how they travelled through space, and what was their impact on contemporary musical life. I will focus here on some of the earliest traceable witnesses of such exchanges, with particular relevance to the movements of singers and manuscripts throughout the Italic peninsula until the first century of the second millennium.

For the definition of 'chant communities' see HAAS, Musikalisches Denken, p. 216.

Readers as singers – chant texts as musical notation

Before the middle of the fourth century, the Psalter was the only 'chant' book in the West, and singing for liturgy was considered primarily as a form of reading.² For this reason, a singer was normally referred to as *psalmista*, or *lector*; although from at least the fifth century, the term cantor was also used in southern Gaul.³ However, tracing the movements of early Christian singers in Late Antiquity is almost an impossible task because of the scarcity of information. This is also due to the fact that a *psalmista* in a church of 450-650 was often not a figure of high rank, and whose appointment did not need a bishop's attention. Singers were likely engaging also in other non-musical activities and were mainly recruited directly by priests among young boys in orphanages, or those clerics that distinguished themselves for their musical abilities. 4 In central-southern Italy, main ecclesiastical musical institutions were organised according to some kind of hierarchy: in the sixth century we find a primicerius cantorum in Naples, and the same role is mentioned again almost two centuries later in the Ordo Romanus I with reference to the more complex organisation of the Roman schola cantorum.⁵ All this has more direct implications for a material history of music making than we might at first suppose: in the centuries before the Carolingian 'renaissance', the interaction between books and singers – between singing and objects supporting performance - was clearly not resting on the mediation of music signs, and the presence of musical notation was not even considered one of the essential features for the identification of a book.6

References to music making in manuscripts before the eighth century can only be inferred from traces like the inscription *psalmus responsorius* in a fourth-century papyrus, or some seventy golden capital R in the sixth-century Psalter of Saint Germain of Paris, designating the responsories to be sung at the end of Psalms.⁷ For the following centuries too we have relatively few references to books containing the *ordo psallendi* – whether as repositories of chant texts or as objects used in liturgical practice – with terms such as *antiphonarium*, *responsoriale*, *missale*, *cantatorio*.⁸ However, none of those accounts mentions musical notation, nor do the very few surviving examples show any evidence for its use. The earliest lists of antiphon texts survive in a late eighth-century fragment in

On the pre-history of chant books see also HUGLO, *Les livres*, pp. 60-63.

³ PAGE, The Christian West, p. 215.

⁴ DYER, *The Boy Singers*, pp. 19-36.

DYER, *The* Schola cantorum, pp. 19-40. For an edition of the *Ordo Romanus I* see ANDRIEU, *Les Ordines Romani*, II.

HUGLO, Les livres, p. 60. Emphasis on books should not led us to neglect the earliest example of a notated hymn (Greek mixed vocal/instrumental notation) for the Trinity in the third-century papyrus fragment Oxford, Sackler Library, Papyrology Rooms, P. Oxy. 1786. The fragment may have been part of a papyrus sheet that was used for communal prayer in an early Christian community. See Cosgrove, An Ancient Christian Hymn.

⁷ The manuscript is Paris, Bibliothèque Nationale, Lat. 11947. See HUGLO, *Les livres*, p. 61.

⁸ RANKIN, Carolingian Liturgical Books, pp. 21-33.

Lucca and in a manuscript from St Gall.⁹ By then, in Rome, chant texts began also to be integrated in missals, writing them in a distinctive, smaller script than readings or prayers; a practice that continued throughout the Middle Ages.¹⁰ Bede tells us that in 680 John, archcantor of St Peter's and abbot of the monastery of St Martin, left Rome to teach «the order and manner of singing and reading aloud» at the Northumbrian monastery of Monkwearmouth, following Pope Agatho's instructions.¹¹ During his stay, singers came from all over the province to learn the Roman way of singing, and John also received many invitations to teach elsewhere. On that occasion, liturgical manuscripts – very likely including chant texts – were produced for reference and record-keeping, which, according to Bede, «have been preserved to this day [c. 731] in the monastery, and copies have now been made by many others elsewhere».¹² Egbert, bishop of York from 738, tells of having received an antiphoner and a missal from Rome; the records of the second council of Clovesho (747) also mention a chant book having been sent directly from Rome.¹³

of manuscripts and singers between Francia and Rome. The number of recorded events that involved Roman singers being asked to teach the *cantilena romana* in Francia, or Frankish clerics sent to be trained at the Roman *schola cantorum* is unparalleled for the following two centuries. In 760 Remigius (or Remedius) of Rouen, Pippin the Short's half brother, went to Rome to ask a teacher of chant be allowed to come north, and Rouen monks were sent to Rome to learn chant under George, the *primus scholae*. A few years later, the *secundus*, Simeon, was also sent to Rouen by Paul I (fl. 757-768) and, in quick sequence, a small library was sent to Pippin from Rome. This library included two chant books, an *antiphonale* and a *responsale*, as well as books on orthography and the seven liberal arts, all of them in Greek. The list of books mentions also a *horologium nocturnum*, «a book of night hours». In The Byzantine *horologion* (Ωρολόγιον) is the liturgical

- ⁹ Lucca, Biblioteca Capitolare, MS 490, and St Gallen, Stiftsbibliothek, MS 1399.
- The fragment is Rome, Biblioteca Apostolica Vaticana, Vat. lat. 10644, front endleaf; online: <digi.vatlib.it/view/MSS_Vat.lat.10644>.
- ¹¹ HILEY, Western Plainchant, p. 507; Bede's Ecclesiastical History of the English People, ed. Colgrave and Mynors, IV, 18, p. 389.
- 12 Ibid
- HILEY, Western Plainchant, pp. 297, 507, 516.
- The expression cantilea romana is found ca. 783 in Paul the Deacon's description, of Chrodegang of Metz's achievements, the Gesta episcoporum mettensium. See Pauli Wanefridi. Liber de episcopis Mettensibus, ed. PERTZ, pp. 260-270. On the early transmission of Roman chant see PFISTERER Cantilena Romana.
- «Direximus itaque excellentissime praecellentiae vestrae et libros, quantos reperire potuimus: id est antiphonale et responsale, insimul artem gramaticum Aristotelis, Dionisii Ariopagitis geometriam, orthografiam, grammaticam, omnes Greco eloquio scriptas, nec non et horologium nocturnum», MGH Epist. III, p. 529, 19-22; HILEY, Western Plainchant, p. 516. While extremely probable, that the two chant books may not have been notated, but consisting only in an organised collection of chant texts without any form of graphic representation of musical inflections, is de facto just a supposition.
- The passage is discussed by LEVY, A New Look at Old Roman Chant II, pp. 180-181.

book containing those fixed parts of the daily Office like psalms, responsories, hymns, and prayers. One of the earliest surviving examples of this type of book is a ninth-century manuscript from southern Italy.¹⁷ It is highly plausible that these volumes were copied in one of the Greek monastic houses that were present in Rome since the seventh century, and where book production was certainly taking place.¹⁸ The same papal latter that accompanied this travelling library seems to suggest that the choice of texts was the result of a generous donation of books in current possession of the papal library («direximos [...] libros, quantos reperire potuimus»). Beside translating, copying, and studying, we can only speculate as to what may have been further uses of these Greek volumes once in Rouen: that is, whether orthography and grammar texts may also have informed music teaching and influenced, at least in part, the development of music writing techniques. While apparently unrelated to music, the mentioning of a travelling library and of its texts provides instead a rare glimpse into the social and cultural environment in which Roman signers were trained, lived, and operated. At the time when George and Simeon travelled to Rome, the city would have been under Byzantine rule for at least two hundred years: while Latin was the language of liturgy and diplomacy, Greek was that of papal administration and science.¹⁹

The arrival of Roman chant in Francia is thus a history of the first planned transregional travels of singers and books with the particular purpose of musical education. Benefiting from the newly-established political connections of the regnum Italiae, the movement of singers across both sides of the Alps intensified with the rise of the Carolingian dynasty in the second half of the eighth century. An impressively sumptuous material witness of that phase is the cantatorium for the Cathedral in Monza. A product of a Frankish scriptorium, this oblong manuscript is the earliest example of a book containing those chants for the Mass sung by the soloist; written in silver and golden uncial script on purple parchment, it was doubtlessly a high-grade display object rather than a practical tool used in the everyday performance of liturgy. Exchanges across the Alps into Italy from East Francia took place along the Via Claudia Augusta, connecting Augsburg and Bavaria with Verona and the Po Valley through the Brenner pass, where it joined the southward route from Regensburg. Other alpine passes further to the East connected the modern regions of Veneto and Friuli with lower Bavaria and

¹⁷ Torino, Biblioteca Nazionale Universitaria, B. II. 30.

FALLA CASTELFRANCHI, I monasteri greci, pp. 221-226; D'AGOSTINO, Furono prodotti manoscritti greci a Roma tra i secoli VIII e IX?, pp. 41-56.

NOBLE, *Literacy and the Papal*, pp. 82-108.

²⁰ See HAUG, Noch einmal: Roms Gesang und die Gemeninschaften im Norden, pp. 103-146; DYER, St. Peter and His Neighbors, pp. 287-340. PFISTERER, Origins and Transmission of Franco-Roman Chant, pp. 69-91; DYER, Sources, pp. 92-121. On liturgical exchange between Rome and the northern countries see MCKITTERICK, The Frankish church. See also AUBERT, When the Roman Liturgy became Frankish, pp. 57-160.

See BAROFFIO, Manoscritti liturgici e musicali sull'arco alpino, pp. 141-150.

See the description in the AMS, I, pp. ix-xi. On the book-type cantatorium see HUGLO, The Cantatorium

Salzburg: for centuries the Aquileian Rite of north-Eastern Italy shared several aspects of the liturgical practice with southern Germanic areas.²³

Singers travelling north from Rome would have had to make use of what remained of ancient imperial roads like the Via Aurelia on the Tyrrehnian coast, or the inland Via Cassia, then either taking the northbound pilgrim route called Via Francigena, or travelling West first to southern Gaul along the Via Julia Augusta, then up towards the Rhine by the Via Agrippa. This would have been also the route taken by those singers protagonists of the 'story' of how Romano-Frankish chant came into being. Various versions of such story were told, the most extensive of which was written by John Hymmonides (John the Deacon) in the late ninth century, but narrating events that took place some eighty years earlier, during Charlemagne's lifetime.²⁴ According to John's version of the events, two Frankish singers were sent to Rome to learn the Roman way of singing and then returned north to teach it. After their death, Pope Hadrian I sent two cantors to Metz, this time ensuring that the repertory would be successfully assimilated by local 'barbaric' (barbaros) singers. Already a distinguished centre of Gallican chant in the sixth and seventh centuries, by the middle of the ninth century Metz increasingly became the place, beside Rome itself, where the most authoritative tradition of chant could be learnt.²⁵ Writing a few years after the alleged events, Amalarius of Metz in his De ordine antiphonari tells us that, in Corbie, he could consult a Roman responsoriale attributed to Pope Hadrian I.²⁶ Still in the early ninth century, an antiphonarium may not include musical notation, but only the authoritative versions of the texts for both the chants of the Mass or the Divine Office hours.²⁷ For this reason, the 'antiphoner' and its contents were at the centre of profound discussion and reforms involving many among the most influential intellectuals of the ecclesiastical world of the Carolingian empire. 28 The debate on correctio, appropriateness, and ordering of chant texts, along with ideas about the consolidation of liturgical practice and ritual were some of the contributing factors that led to music script finally beginning to be written down in books.²⁹

- See TAVANO et al., cur., Aquileia e il suo patriarcato; MURAT VEDOVETTO, cur., Il Patriarcato di Aquileia.
- RANKIN, Ways of Telling Stories, pp. 371-376. Other writers include Notker Balbulus and Ekkehard IV at St Gall, and later Ademar of Chabannes (see below fn. 68). The whole enterprise was depicted in a now-destroyed ivory diptych made in Trier in the early tenth century (olim Berlin, Preußischer Kulturbesitz). The scenes are based on John Hymmonides' version of the story. See SANDERSON, Archbishop Radbod, Regino of Prüm and Late Carolingian Art and Music in Trier, pp. 41-61; and VARELLI, The Roman schola cantorum According to the Carolingians.
- In the early 760s, Alcuin's pupil Sigulf went from York to Rome to study liturgy, while he chose Metz for *cantus*. See *Vita Alcuini*, ed. Arndt, p. 189; PAGE, *The Christian West*, p. 339.
- Amalarius presbyter Metensis et chorepiscopus. De ordine antiphonarii, ed. Migne, col. 1245. See HUGLO, Les livres, p. 62.
- ²⁷ HILEY, Western Plainchant, p. 570
- ²⁸ For all the main recorded exchanges of early antiphoners see HUGLO, *Les remaniements de l'antiphonaire grégorien au IXe siècle*, pp. 87-120.
- See RANKIN, Writing Sounds, pp. 340-353. In a capitulary issued in 789, the famous Admonitio generalis, Charlemagne prescribes that liturgical manuscripts may only be copied by those of

Singers as scribes – music signs in the mists of time

By the second third of the ninth century, whether travelling solely in the minds of singers, or by means of some kind of material support, graphic signs for the representation of sound already spread West to Neustria (modern-day north-western France) and East to Bavaria. Despite seeming as if different notational families emerged from the 'mist' and appeared in a more or less fully nuanced form towards the end of the ninth century, these regional music scripts did share some basic graphic layer. A certain level of exchange of graphic forms thus must have taken place which, in the absence of direct manuscript sources that can reveal the movement of singers and their books, can only be appreciated by looking at musical notation itself. For example, the notation in Breton and Lotharingia share certain distinctive features in the treatment of pitch which sets them apart from East Frankish types, spread in Germanic areas. In turn, East and West Frankish types differ only in a relatively contained number of distinctive features that make them otherwise part of a large central-European family, which was present also in extensive parts of the Italic and Iberian peninsulae.

It is possible that the first ever journey of music writing techniques was not in the form of fully notated codices, but as a series of signs written using more ephemeral supports, such as scrap parchment or wax tablets.³⁴ Like the earliest collections of chant texts circulated in various informal supports such as *rotuli* or *libelli* before their fixation and transmission in high-grade manuscripts, the inclusion of musical notation in books also happened at a later stage. Surviving evidence suggests that, in the first half of the ninth century, the main regional

- mature age: «[...] si opus est evangelium, psalterium et missale scribere, prefectae aetatis homines scribant cum omni diligentia», *MGH*, *Leges: Capitularia*, I, p. 60. RANKIN, *Carolingian*, pp. 274-316; RANKIN, *Writing Sounds*, § 11.
- Only two examples of musical notation have been dated to the second quarter of the ninth century; Oxford, Bodleian Library, Auct. F.4.46 (f. 1), and Munich, Bayerisches Staatsbibliothek, Clm 9543 (f. 199v). On both see RANKIN, Writing Sounds, esp. respectively, pp. 245-246, 355, and pp. 77-84.
- I reference to Froger's zone brumeuse in his stemma of neumatic notations, see Le Graduel romain, p. 92. The debate about the origin of Western musical notation that took the most part of a decade between the 1980s and 1990s (Kelly, Levy, Hucke, Arlt, among others) centred around a then-new way of looking at the development of music scripts as interlaced with its contemporary cultural context and achievements, especially oral and written practice. For the most recent and complete account see RANKIN, Writing Sounds, pp. 56-64.
- For surveys of Lotharingian and Breton notations see HOURLIER, *Le domaine de la notation messine*; HUGLO, *Le domaine de la notation bretonne*. Breton notation is also found in the north west of Italy (e.g. Ivrea, Pavia). From the early eleventh century onwards, Lothringian notation was adopted in the region of Como; see ALBIERO, *I canti della messa nell'Archivio di Stato di Pavia*; ALBIERO, *Le fonti liturgico-musicali della diocesi di Como (sec. XI)*.
- Bruno Stäblein speaks of a 'zentraleuropäische Familie' in STÄBLEIN Schriftbild der einstimmigen Musik, pp. 27 and 30. See also RANKIN, Writing Sounds, p. 181.
- On wax tablets and musical notation (neumes and later repertories) see HAINES, *Manuscript Sources and Calligraphy*. Postulating the existence of a fully notated antiphoner by 800 is LEVY, *Charlemagne's Archetype of Gregorian Chant*. But see also the review-article by HORNBY, *The Transmission of Western Chant*.

varieties of musical notation started to emerge and be shaped within those institutions where music was being written down, such as Metz, Chartres, and St Gall. As music scripts began to be developed, other aspects related to the materiality of early neumatic notation acquired increasing importance. One of these is calligraphy.³⁵ The penmanship of the musical scribe of the ninth-century Laon gradual is remarkable; the great accuracy and sophistication of the Lotharingian neumeshapes would suggest that the scribe was very likely a singer himself.³⁶ Furthermore, the range of signs employed in Laon not only featured a series of complex graphic modifications of the same basic neume-shapes for the most accurate delivery of musical information, but it also included a series of additional elements pertaining to the broader realm of contemporary writing culture, such as letters (*litterae significativae*), or shorthand writing like Tironian notes.³⁷

Just like text scripts, early notations emerged from a shared scribal discipline, often forming the hallmark of a scriptorium, a 'house style'. Neumatic notation remains, however, one of the very few writing systems for which it is not possible to fully trace a gradual phase of design and graphic development, like the one for example for the transition from regional minuscules to caroline minuscule in the writing of verbal texts.³⁸ In large part, moreover, the production of music books faced the same challenges than that of any other type of manuscript codices: their compilation – the material process of copying and making, rather than the editorial process of selecting content and grade of decoration – was an exceptional undertaking which required a precise agenda.³⁹ Calculating word and syllable separation for the laying down of musical notation also required mastery of grammar and precise knowledge of the melody, at the same time as the familiarity with each musical sign and their possible modifications, not to mention the financial endeavour in acquiring and preparing all material supports.⁴⁰

Even though musical notation was certainly in use, and starting to claim its presence in liturgical manuscripts since at least the middle of the ninth century, the earliest surviving complete chant books date to the years around 900.⁴¹ In the

Exploring this particular aspect is HAINES, ed., *The Calligraphy of Medieval Music*, esp. RANKIN, *Calligraphy and the Study of Neumatic Notations*.

Laon, Bibliothèque municipale, MS 239 (on line). It is possible to fully appreciate the level of elegance by comparing the main musical hand to the less calligraphic one that writes the musical notation (now almost faded) for the second (sometimes third, or fourth) offertory verses throughout the manuscript.

The use of Tironian notes – a widespread type of shorthand – to complement musical notation is only found in the Laon manuscript. See KOHLHÄUFL, *Die Tironischen Noten im Codex Laon 239*. Tironian notes (*notae*) are mentioned in Charlemagne's *Admonitio generalis* of 789 (see above fn. 29) along with *psalmus*, *cantus*, *compotum* and *grammaticam* as fundamental component of carolingian education.

³⁸ GANZ, Book Production and the Spread of Caroline Minuscule, p. 790.

³⁹ RANKIN, The Making of Carolingian Mass Chant Books.

RANKIN, On the Treatment of Pitch.

The most famous are Laon, Bibliothèque municipale, MS 239, St Gall, Stiftsbibliothek, MS 359, and the now-destroyed Chartres, Bibliothèque de la ville, MS 47. The most comprehensive list to date, including fragments, is in RANKIN, Writing Sounds, Appendix.

course of the tenth century, music scripts spread so widely as to define entire territories and ecclesiastical provinces. Well before the year 1000, then, musical notation already reached nearly every corner of western Europe, from Anglo-Saxon Britain to Visigothic Spain, from southern Italy to northern Germany. 42 With the creation and development of different notational families, therefore, gradually came the awareness of the existence of such distinct traditions.⁴³ However, the degree to which tenth-century singers actually possessed such awareness is hard to establish, as it depended much on the institutional network of particular ecclesiastic institutions, and on the circumstances of direct contact with written media containing a music script that was recognised as 'other'. 44 Yet, the fact itself that regional ways of writing sound settled in often well-defined scripts may be interpreted as not just the mere adoption of established practices, but also as efforts to shape and preserve particular styles as elements constituting institutional or congregational identities. 45 Reminiscent of John Hymmonides' distinction between the sweetness of Roman singers (modulationis dulcedinem) and the harsh, barbarous sound of 'alpine bodies' (alpina corpora), in the early eleventh century the monk, composer and scribe Adémar of Chabannes (989-1034) provides us with the first ethno-geographic denomination of music scripts by speaking of nota romana and nota francisca. 46 In a highly romanticised passage of his Chronicon, Adémar speaks of two antiphoners brought to Francia by Theodoric and Benedict, singers at the schola cantorum, and that Pope Gregory I himself notated in 'Roman notation' (nota romana). 47 Frankish antiphoners were thus aptly corrected, and all Frankish singers – according to Adémar's propagandistic account

- The political fragmentation in Italy, especially in the north of the peninsula, in the tenth and early eleventh centuries resulted in the adoption of different music scripts, making the area the place with the greatest variety of notational influences in Latin Europe. For an overview of Italian neumatic notations see BAROFFIO, *Music Writing Styles*; BAROFFIO, *Notazioni neumatiche (secoli IX-XIII)*. For a description of an ongoing project see Varelli, *Politics and Geographies*.
- 43 RANKIN, Identity and Diversity.
- See POHL REIMITZ, Hrsg., Grenze und Differenz. For music, in particular MCKITTERICK, Music, Identity and Community.
- ⁴⁵ Several aspects of the production of a manuscript culture, from the choice of decoration to that of the script, or indeed other physical qualities of the written object (e.g. binding, dimensions) are deliberate visual expressions of communal and institutional identity. It is, I believe, rather counterintuitive to maintain that music notation may not have been also in part influenced by similar dynamics. See, among others, BROWN *et al.*, eds., *Graphic Devices*; MORISON, *Politics and Script*; PETRUCCI, *Writers and Readers*.
- It is not certain what exactly Ademar had in mind when he wrote of nota romana or francisca, although it is very possible that the monk of Chabannes may have seen manuscripts with different types of notation as part of his activity as music scribe, writing in Aquitanian notation. GRIER, Adémar de Chabannes; GRIER, The Musical World of a Medieval Monk; GRIER, Adémar de Chabannes (989-1034) and Musical Literacy; GRIER, Adémar de Chabannes (989-1034) as Musicologist.
- ⁴⁷ The perceived difference between the Roman and the Frankish traditions with implications that went beyond the mere recognition of distinct liturgical practices goes back to the eight century. In the early ninth century, this is still evident in the writing of Aurelian of Réôme and Amalarius of Metz. See WINKELMÜLLER, *Die "mos... veteranorum cantorum" des Aurelianus Reomensis*.

– started a process of 'cultural appropriation', eventually referring to such notation as *nota francisca*. ⁴⁸

Along margins and across borders - notations from the edge

Notker's *Liber ymnorum* is the earliest surviving example of a stand-alone collection of sequences, especially composed texts on pre-existing melodies that were destined to become an essential part of the sung Mass. ⁴⁹ The *Liber ymnorum* is also a collection which we know was composed by a particular individual, an intellectual working at a very influential monastic centre, and who almost certainly was responsible for some choices in the compilation process of such a collection. Most importantly for the present essay, Notker's *libellus* – 'booklet', as he himself called it in his preface – sparks a wide range of considerations about the role of materiality in the transmission of musical notation, illuminating a period for which we have but a minute number of surviving music manuscripts. ⁵⁰

Notker *balbulus* (the 'stammer', c. 840-912) was a monk at the Alemannic abbey of St Gall and, like many of the most prominent monastic figures among his contemporaries, he was also a writer, scribe, librarian, poet, and scholar. Along with fellow monks Ratpert and Tuotilo, Notker was part of a very active intellectual environment and liturgical activity at St Gall in the second half of the ninth century. Most of the information about the genesis of the *Liber ymnorum* can be drawn from the preface that Notker himself wrote. He begins by telling us that since he was a young novice (*iuvenulus*) he had faced the problem of memorising the sequences' "very long melodies" (*melodiae longissimae*) and that it was on the occasion of his encounter with a travelling priest that Notker found the solution to his problem. The priest, we are told, arrived at St Gall after fleeting from the recently-destroyed (*vastata*) abbey of Jumièges, bringing with him an *antiphonarium* in which certain texts were copied to be sung after the Alleluia. Since the final devastation of Jumièges occurred in 866, the antiphoner carried by

GRIER, Adémar de Chabannes, pp. 51-52.

⁴⁹ BOWER, ed., *The Liber Ymnorum of Notker Balbulus*; von den steinen, Hrsg., *Notker der Dichter und seine geistige Welt.* For the most recent overview on the history of the sequence see KRUCKENBERG, *Sequence*; *Sequences* in HILEY, *Western Plainchant*, pp. 172-195; and STÄBLEIN, *Schriftbild der einstimmigen Musik*.

⁵⁰ By writing *libellum* and *codicillum*, it is possible that Notker referred both to the book's small format, while at the same time conferring his dedication a layer of rhetorical *humilitas*.

⁵¹ HILEY, Notker; HILEY, Notker Balbulus. See also RANKIN, Notker and Tuotilo; RANKIN, Ego itaque Notker scripsi; RANKIN, The Song School of St Gall, pp. 173–198.

The text chosen for the edition is preserved in the manuscript Paris, Bibliothèque nationale, lat. 10587, ff. 1r-4v, BOWER, *The Liber Ymnorum*, II, p. 2. See also HAUG, *Re-Reading Notker's Preface*.

⁵³ BOWER, *The Liber Ymnorum*, I, pp. 129-130.

the priest must have been copied by the 850s at the latest, a period when notation was already in existence and circulating; the book, however, did not survive.⁵⁴

The direct contact with the antiphoner triggered Notker's excitement, as he set to write the first sequence texts already by the late 870s.⁵⁵ Very soon, his teacher Marcellus – the Irish monk Moengal (d. 871) – began to circulate the pupil's poetic texts among singers firstly in the form of parchment rolls (rotulas). This information provides us with a rare glimpse into the informal, 'everyday' use of writing and written artefacts in late ninth-century St Gall, where the preferred support for the internal circulation of the newly-composed sequence texts among singers was not a manuscript, nor a libellum, but a roll. 56 The specific choice for this type of writing support, rather than some scrap parchment folios, may have been dictated also by the very nature of the texts it presented: sequences needed to be laid out vertically, in verse, thus visually enhancing their status as new poetic compositions.⁵⁷ Moreover, a roll was likely considered the most suited support for carrying a new poetic and chant repertory, which was still in the process of being shaped and undergoing the first attempts to integrate it into the musical practice at the abbey.⁵⁸ Due to their *ephemera* nature, however, such rolls did not survive, which makes it impossible for us to determine whether they also contained musical notation.⁵⁹ In any case, the trace of a transitory material embodiment of sequence texts on rolls, as well as Notker's remarks about verses being eventually gathered into a book (in libellum compactos), once again confirms that the process of collecting the body of sequence texts in an independent *codex*, could only be reached as the very final stage. ⁶⁰ Writing music or chant texts formally in a book was meant to provide them with a material, concrete representation, stating their existence as an established practice, as well as ensuring their communication, transmission, and reception.

⁵⁴ *Ibid.*, II, p. 3. See also RANKIN, *The Earliest Sources for Notker's Sequences*, esp. p. 203.

⁵⁵ Bower, *The Liber Ymnorum*, I, p. 2

On liturgical rolls see HUGLO, *Les livres*, p. 63. From the late tenth century, several lavishly-decorated rolls survive from southern Italy that were used in the singing of the *Exultet* chant for the consecration of the Pascal Candle on Easter Eve. In the rolls, the *Exultet* music notation and text was written upside down to the illuminations, which were to be seen correctly by the congregation as they were unrolled in the performance. See KELLY, *The Exultet in Southern Italy*; CAVALLO, cur., *Exultet: Rotoli liturgici del medioevo meridionale*.

⁵⁷ St Gallen, Stiftsbibliothek, Vadiana 317. For a poetry manuscript produced at St Gall during Notker's lifetime see for example, the layout in St Gall, Stiftsbibliothek, Cod. Sang. 869 [available online on *e-Codices*] containing the works of the Reichenau scholar and Abbot Walahfrid Strabo.

⁵⁸ RANKIN, From Tuotilo to the First Manuscripts.

It is very likely that the repertory of sequences was well-known at a centre like St Gall, with an already long-established musical practice by the second half of the ninth century, and singers would simply need to access the texts. Moreover, as pointed out by Andreas Haug, the texts alone would serve as an aide-memoire for a previously-known melody, without the need for musical notation («Wenn er auswendig gewußt wird, leistet der dem Melisma angepaßte Text eine schriftanaloge Hilfe beim Festhalten der Melodie, auch ohne selber aufgeschrieben zu sein»). See HAUG, Gesungene und schriftlich dargestellte Sequenz, pp. 20-21.

⁶⁰ BOWER, The Liber Ymnorum, I, p. 130.

Musical notation was very likely an integral part of the first circulation of the *liber ymnorum*; the musical signs would have been written in St Gall's most distinctive music script in the margins' blank space, as opposed to the interlinear space, beside the poetic verses at the centre of the page, following them almost *per cola et commata*. As a result, the *liber* became an extraordinary example of multimedia support, since it could be consulted for its poetic content, as well as its musical one, while the two would remain visually distinct. More importantly, this solution is a remarkable example of how the presence of notation could bend pre-established conventions about layout choices, with scribes concretely shaping material objects for musical transmission.

The choice of placing musical notation in the left or right margins of the page was, thus, at the same time a practical, aesthetic, and intellectual one. Whether the synoptically notated sequences had any bearing on performance is hard to determine, but their melodies at St Gall, as well as in most southern Germanic areas, must have been perceived as entities apart from any text; it is quite common to find sequences circulating as individual wordless melodies, to which even particular names were assigned. The presence of musical notation also partly shaped the book's own identity, as well as elevating the sequences' *melodiae longissimae* to the same level of poetic compositions; it effectively inscribed both *ars musica*, as stemming from Boethius and Late-Antique scientific thought, and *ars poetica* in the same visual and material space.

Despite Notker himself being a very competent scribe, as *bibliotecharius*, his role in the scriptorium was more that of overseeing – and sometimes correcting – the work of a team of scribes.⁶⁴ A copy of Notker's *liber ymnorum* was made not long after its composition by Sintram, one of the best scribes at St Gall, who was also responsible of writing some of the finest products of the Alemannic scriptorium like the *Evangelium longo*.⁶⁵ Two of the earliest surviving copies of the *liber ymnorum*, dating to Notker's lifetime, are fragmentary; one of which

⁶¹ RANKIN, *The Earliest Sources*, p. 231.

On the layout of early sequentiaries see in particular KRUCKENBERG, Neumatizing the Sequence, esp. 244-249. For Haug, the synoptic arrangement is evidence that, even though Notker certainly knew musical notation (cf. the Epistola ad Lantbertum in which he explains the use and meaning of the litterae significativae), he did not compose his verses with the aid of musical notation («Notker hat seine Sequenzdichtungen an gesungene, nicht an geschriebene Melodien angepaßt»). See HAUG, Gesungene und schriftlich dargestellte Sequenz, p. 21. For St Gall see, for example, the names of sequence melodies metenses, romana, amoena, frigdora, and occidentana mentioned by Ekkehard IV of St Gall in his Casus Sancti Galli (ed. HAEFELE, pp. 106-108). See also, KRUCKENBERG, Ekkehard's Use of Musical Detail; and PERAINO, Singing History: Chant.

⁶³ For the most recent and comprehensive study of music theory and thought from the Late Antiquity to the early Middle Ages see ATKINSON, *The Critical Nexus*.

⁶⁴ RANKIN, *Notker bibliothecarius*.

⁶⁵ St Gall, Stiftsbibliothek, MS 53. See dating and identification in HOFFMANN, Buchkunst und Königtum, I, p. 390. See also RANKIN, Writing Sounds, pp. 157-159.

was recently reconstructed after having been cut into strips and reused as part of the binding of a later volume (Figure 1). 66



Figure 1. Munich, Bayerisches Staatsbibliothek, Clm 29308(1.

(Details follow:)



See RANKIN, The Earliest Sources, pp. 201-233. The reconstructed folio is Munich, Bayerisches Staatsbibliothek, Clm 29308(1. For the latter see RANKIN, Writing Sounds, pp. 114-115; BI-SCHOFF, Hrsg., Katalog der festländischen Handschriften des neunten Jahrunderts, II, n. 3416. Another early source is the sequence Sancti spiritus adsit nobis gratia written by a tenth- or eleventh-century hand on the front flyleaf of Budapest, Országos Széchényi Könyvtár, Cod. lat. 3 (f. 1), a copy of Boethius' De institutione arithmetica compiled in Lorch in the first half of the ninth century (see BISCHOFF, Katalog, I, p. 758).



Following his brother Othar's suggestion, Notker dedicated his liber to Liutward, formerly a monk at Reichenau, then archchaplain at the court of Charles the Fat, bishop of Vercelli (880), and abbot of St Gall's sister Irish foundation, the norther-Italian monastery of St Columbanus in Bobbio (880-882). The chronology of the composition of the Liber ymnorum intersects with Liutward's ecclesiastical career around 881-882, when the latter was still abbot at St Columbanus.⁶⁷ By providing the *liber* with the musical signs used at St Gall, Notker must have been aware that – as a result of the long-established brotherhood and institutional connection with Bobbio - music was just starting to be written down under the influence of or by singers trained in the Alemannic abbey.⁶⁸ Upon leaving St Gall, the journey of the finest copy of Notker's Liber ymnorum started in the Bodensee area, going south via Bregenz (Brigantium), then reaching the convent of Cazis and the monastery of Disentis, then towards Chur (Curia) following the ancient roman road along the river Rein (Fig. 2). Through low Raethian Alpine passes the book then reached Como (Comum), Monza, and the Po valley at Milan (Mediolanum). Through the marshes on the Roman road via Lodi (Laus Pompeia), the party then crossed the river Po just north of Piacenza (Placentia) and moved up

⁶⁷ BOWER, The Liber Ymnorum, I, p. 2.

This is shown by the earliest surviving examples, a notated plenary missal and a gradual fragment copied in Bobbio ca. 900. For the fragments see VARELLI, *The Early Written Transmission of Chant*. For the missal Milan, Biblioteca Ambrosiana, D 84 inf. see RANKIN, *Writing Sounds*, pp. 86 and 118. For later Bobbio music manuscripts see SCAPPATICCI, *Codici e liturgia a Bobbio*.

the valley of the river Trebbia to Bobbio. ⁶⁹ The travellers – and the *Liber* – took probably a bit more than 14 days, covering a distance of around 440 kilometres. ⁷⁰



Figure 2. The route from St Gall to Bobbio

An everyday, practical way in which musical notation travelled was as part of a *libellus*.⁷¹ These booklets usually circulated unbound and consisted of one or two parchment gatherings, possibly even unruled and featuring minimal decoration, which was often only functional to the internal organisation of written material. Despite their 'informal' appearance, *libelli* were normally coherent in terms of content, transmitting only the liturgy and chants for a certain feast; they certainly constituted a material support which facilitated exchange of musical knowledge and interaction among singers. A *libellus* was also very likely a teaching tool and a repository of chants and rituals on which to base more formal, high grade manuscript compilations. An early example of a *libellus* with musical notation is now bound as part of a composite manuscript in Rome, Biblioteca Centrale, Sessoriano 96, ff. 314r-320v (hereafter Sess. 96) and contains the chants for the Office

⁶⁹ See BACHRACH, Charlemagne's Early Campaigns (768-777), pp. 476-480; BOWLUS, Italia-Bavaria-Avaria.

⁷⁰ See RANKIN, *Writing Sounds*, p. 162, and SCHÄR, *Gallus*, p. 404.

⁷¹ For the codicological criteria see HUGLO, *Les livres*, pp. 64-75. See also PALAZZO, *Le rôle des* libelli; BAROFFIO, *Manoscritti liturgico-musicali*, esp. p. 87.

and Mass for St Benedict, as well as the prayers and blessings for the Mass on the saint's day.⁷² The *libellus* was copied sometime in the early tenth century at the northern Italian abbey of Nonantola.⁷³ Alongside a number of internal elements that suggest such an early date, the scribe chose to present the chants for St Benedict following the older practice of writing first the series of all the responsories, followed by all the antiphons, instead of arranging them following the hours of the Divine Office.⁷⁴ As for other supports discussed so far, many of such booklets did not survive; those that did were often later bound as appendixes to music or composite manuscripts like Sess. 96.⁷⁵

Besides constituting a rare example of an early medieval musical 'object', the small Nonantolan booklet also contains traces of how a late tenth-century singer negotiated with the visual and material facets of early music writing. First, however, we must turn our attention to a textual marginalia on the top f. 32or, where a late tenth-century hand writes the dismissal formula *Ite missa est* trope *Ite laudantes deum* (Fig. 2).⁷⁶ The text can be transcribed as follows:

Ite laudantes deum atque dominum semper **misca** [*sic*] **est Deo** renti [*sic*] suis ac fidelibus cuntis [*sic*] **gratias.**

[Go, always praising God and the Lord, you are dismissed. Thanking God for his and all faithful people.]

The version in Sess. 96 has textual concordances with German or northern Italian manuscripts, while southern French and southern Italian traditions are increasingly divergent.⁷⁷ Furthermore, the presence of *Ite laudantes deum* in the

- Another contemporary notated *libellus* is bound as part of the composite manuscript St Gall, Stiftsbibliothek, Ms 18 (pp. 21-40). The 'booklet' may «represent some sort of experimental copy, the attempt to bring together, in clearly laid-out form, a full collection of processional pieces». See RANKIN, *Ways of Telling Stories*, pp. 386-389.
- ⁷³ See VARELLI, Appunti sulla nonantolana, esp. pp. 70-75; VARELLI, Musical Notation, pp. 74-90, 113-122.
- This practice, predominant in the oldest antiphoners, survives in exceptional cases also in later periods. See HUGLO, *Les livres*, pp. 79-94.
- The chants were sometimes preceded by a life of the saint, as in a recently-discovered example of a *libellum* in Vercelli, Biblioteca Capitolare, MS XLVII (ff. 114r-121v). The gathering, copied in central-northern France around 1100, contains the life of St Giles (*BHL* 93, ff. 115r-119v) and the Office chants (ff. 119r-120r). The gathering very likely circulated as a stand-alone *libellum* before it was bound in MS XLVII, as it is revealed by the presence of horizontal and vertical folds still visible on the parchment. See BRUSA, *I manoscritti agiografici della Biblioteca Capitolare di Vercelli*.
- Ite tropes, textual interpolations to the Ite missa est, were primarily a phenomenon of the German-speaking areas, not so much for the quantity as for the continuity of their transmission. Ite laudantes deum is widely attested at least by comparison with other Ite tropes. See EIFRIG PFISTERER, Hrsg., Melodien zum Ite missa est, pp. ix, xi.
- According to the Eifig-Pfisterer edition there are seven sources for this trope. See *Melodien*, pp. lxvii-xciii. Beside Sess. 96 are to be added a fragment in Munich, and a recently discovered Aquitanian manuscript. The fragment is Munich, Bayerische Staatsbibliothek, Clm 29305(1 (11th c., Kyrial, Ebersberg?), see HAUKE, Hrsg., *Katalog der lateinischen Fragmente der Bayerischen Staatsbibliothek München*, I, p. 232. The 12th c. missal from Puy-en-Velay, was sold in June 2015 by the Austrian auction house Dorotheum and its current ownership remains unknown.

margin of f. 320r may not be accidental: in the Alemannic abbey of St Gall, the trope was to be sung as a dismissal formula *in majoribus festis* (on major feast days), such as the feast of St Benedict at the Benedictine abbey of Nonantola, where the trope was probably not sung at the time of the compilation of the *libel-lum*. By writing a series of variant or incorrect spellings (*misca* for *missa*, *cuntis* for *cunctis*, *renti* for *reddentes*) the scribe revealed that his knowledge of the trope was likely based primarily on oral transmission: in inscribing it in the margin of the *libellus*, the scribe was therefore negotiating with the material process of recording a practice-based understanding of the chant text.

A closer look at the verbal script of the marginal annotation reveals various correspondences with that of the *probatio pennae* in the left margin of another folio of Sess. 96 (f. 316v). Palaeographically, the same forms and ductus are employed for the letters e, r, s and a (Fig. 3), which suggests that the Ite trope and the Alleluia *Eripe me* were very likely added by the same hand. Moving from the writing of verbal text to that of the musical content of the annotation on f. 316v, it is striking to observe the type of 'hybrid' notation used for the Alleluia, which is characterised by an East-Frankish notational substratum onto which Nonantolan signs have been grafted; this is visible in particular for the Frankish shapes of the torculus resupinus and liquescent pes. It is very clear from the way signs are arranged, their graphic proportions, and the lack of an identifiable melodic profile that the scribe was not accustomed to writing Nonantolan neumes and that he had probably just recently become acquainted with the music writing practices of the Benedictine abbey. Considering what has been established about the particular version of the Ite laudantes deum in Sess. 96, and the presence of East Frankish elements in the probatio pennae, the musical entry on f. 316v can be interpreted as an attempt by a scribe trained in a Germanic community to assimilate the type of notation used in the host monastery of Nonantola. The German monk that penned his notational mash-up showed how the encounter with and perception of a different notational register may produce material efforts to engage with the unfamiliar graphic style.

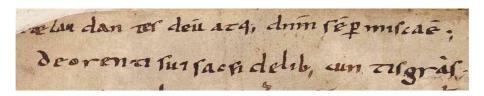


Figure 3. Ite missa est trope in Sess. 96 (f. 32or)

Three studies have been published in *Les cahiers de la Haute-Loire* (2015): DE FRAMOND – PERRE, *Le sacramentaire du Puy-en-Velay (XIe siècle)*, pp. 27-29; KLUGSEDER, *Découvertes d'importantes sources liturgiques et musicales*, pp. 30-48; ROLLAND, *Le sacramentaire du Puy-en-Velay*, pp. 49-69. The trope *Ite laudantes deum* is on f. 164v. See also VARELLI, *Musical Notation*, pp. 118-122.

In St Gall, Stiftsbibliothek, MS 382 (p. 70) a rubric prescribes *Ite laudantes deum* to be sung *in majoribus festis*.

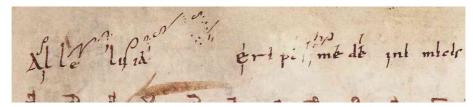


Figure 4. Pen trial with musical notation in Sess. 96 (f. 316v)

The German singer left traces of his presence at the Benedictine monastery towards the end of the tenth century by inscribing them in the written musical medium, which in turn becomes an agent for the scribe's interaction and dialogue with the material musical and liturgical object. For early singers, margins were places for occasional private training in musical notation, often with the double purpose of trying out the pen nib's cut by practising signs' forms. Traces such as the presence of travelling monks, institutional links, and encounters of different notational, musical, and liturgical practices, which triggered individual, almost private, material responses are important witnesses of historical dynamics which would not normally enter the documentary records and would otherwise remain uncharted.

Guido and the singing Pope – musical notation and ecclesiastical reform

The first time we can speak for certain, and with a fair degree of detail, of a chant manuscript undertaking a journey because of the particular type of musical notation it carried is in the case of the antiphoner brought by a Benedictine monk and choirmaster from Arezzo to Pope John XIX in 1032. The monk's name was Guido (c. 991-c. 1086), who lived most of his early life at the northern-Italian abbey of Pomposa, in the diocese of Ravenna. The little we know about Guido's life can be learnt from two letters that survived, dating to after he moved to Arezzo: one is addressed to his patron, bishop Theodaldus of Canossa (1023-1036), and one to his fellow monk and friend Michael of Pomposa; the latter (*Epistola ad Michaelem*) is the one narrating the events that interest us here.⁷⁹

At some point in the early 1030s, the news reached Rome and the Lateran that a revolutionary method was being used for teaching and learning chant in the *schola cantorum* of Arezzo cathedral: a certain choirmaster developed a way to write down melodies that could then be reproduced without the aid of a teacher or the presence of an experienced singer, but simply by reading them from the manuscript page. The then Pope John XIX – who must have been aware of the challenges of learning liturgical chant orally from his direct experience when a young cleric, as well as from current accounts of the musical life at the Roman

See edition PESCE, Guido, pp. 438-458. For a more recent translation (Italian) see RUSCONI, cur., Guido d'Arezzo. Le Opere.

schola cantorum – was certainly intrigued to find out more and, in late spring of 1032, three of his emissaries started their ascent north to reach Arezzo. Guido then set to travel to Rome accompanied by some 'abbot Grunwald' and Peter, prefect of the canons of the Church of Arezzo, making sure to take with him the best copy of his antiphoner.

Once in Rome, the three church men on a 'musical' mission reached the Lateran and they were greeted by John XIX who, in Guido's words, was «conversing much and inquiring in detail about many things» (multa colloquens et diversa perquirens). After this initial conversation, the party turned their attention to the music manuscript. The Pope then looked at length at the antiphoner, turning the pages «as if it were some kind of marvel» (velut quoddam prodigius) and reflecting on the rules set out in the *prologus*, which contained the instructions for the correct reading of the musical staff.80 According to Guido's account, John XIX did not interrupt his scrutiny or leave his seat until he himself was able to learn a new melody simply by reading. We can easily imagine the Pope's wonder and the potential which he saw in Guido's musical staff: his innovation was not just a useful teaching tool, it was a technology that changed the entire perception of music writing, as well as the role of such manuscript material objects in the transmission of liturgical chant, shifting from being supports to orality to constituting the basis of literacy. Until then, written music did not function like the written word, since it still relied on the presence and support of orality, be it coming from communal practice or with the intermediacy of a teacher.81 Instead, as Guido himself wrote to his friend Michael, the new system would produce a skilled singer in one or two years, compared to the ten or more needed to learn chant by ear, or with some basic help of neumatic notation, which was certainly in use at that time in Pomposa.82

In Rome, Guido stayed at a bishop's residency for some days, before being forced to leave due to the summer heat (*estivo fervore*) of the coastal places (*locis maritimis*) of central Italy. As a man of the 'mountains' – or of the 'marshes'; sources differ – he negotiated to return to the Lateran in winter in order to illustrate in detail his antiphoner to the Pope and his clergy.⁸³ After a short period in Bremen, Guido returned to the Benedictine monastery in 1037, possibly staying until 1046, and remaining in the Ravenna area until his death, shortly after 1080.⁸⁴

The term Guido uses here is *prefixas*. While it is translated as 'prefixed' by Pesce (*Guido*, p. 450), Rusconi choses instead 'introduttive' (*Guido d'Arezzo. Le opere*, p. 133), thus taking the term to refer to Guido's *Prologus in antiphonarium*.

See BOYNTON, ed., *Boy Singers*, Introduction and pp. 49-67. See also BUSSE BERGER, *Teaching and Learning Music*, pp. 475-499.

The neumatic notation in use at Pomposa was the so-called Ravennate type. See, for example, COLANTUONO, *Il breviario pomposiano Ms. Udine Biblioteca Arcivescovile*, 79.

He was possibly either referring to the milder climate in the Apennines near Arezzo, or to the northern plain of Pomposa. See SAMARITANI, *Contributi alla biografia di Giudo a Pomposa e Arezzo*. The current English and Italian translations adopt *alpestribus*, see PESCE, *Guido*, p. 452; RUSCONI, *Guido d'Arezzo*. *Le opere*, p. 133.

⁸⁴ This is according to SAMARITANI, Contributi alla biografia di Giudo a Pomposa e Arezzo, pp.

Pomposa was close to the routes of Holy Roman Emperors Conrad II and Henry III into Italy, from Bavaria through the Brenner pass into Brixen, Trent, Verona, and Ravenna. From what we can reconstruct of his biography, during his life Guido travelled from the Po valley (Via Emilia) to the plains of the Thyrrenian coast across mountain passes of the northern Apennines, and it is very probably the view of the hills of the Via Cassia *vetus* – the same route today's travellers would follow from Arezzo to Rome – that accompanied Guido and his antiphoner on their way to the Lateran in the summer of 1032 (Figure 5). The earliest surviving manuscript of the Roman reception of Guido's system, adapting the local type of musical notation to the new rules, is a magnificent gradual compiled in 1071 by John, priest at Santa Cecilia in Trastevere for the use of its *schola cantorum* (Figure 6).



Figure 5. The route Pomposa-Arezzo and Arezzo-Rome.

Like many great innovators, Guido too fell victim of some opposition at his mother house, which possibly led him to Arezzo in the first place.⁸⁸ Despite the layer of rhetorical *humilitas* in his letter to Michael, Guido was well aware of the

⁸⁵ FATUCCHI, *Itinerari medievali*.

⁶ Ibid

The manuscript is Cologny, Fondation Bodmer, MS 74, and it is the oldest surviving music manuscript source for Old Roman chant. For a study and facsimile see LÜTOLF, *Das Graduale von Santa Cecilia in Trastevere*. Guido's reform seems to have been undertaken quite radically, replacing all older chant books from Rome. See BOE, *Chant Notation*; BOE, *Music Notation*.

In particular, abbot Guido other fellow monks at Pomposa. The former – possibly only after having heard of the success in Arezzo and Rome – turned to praise the monk's work, regretting having once been among his rivals.

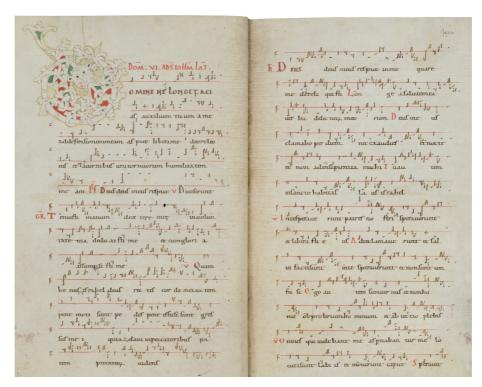


Figure 6. Cologny, Fondation Bodmer, Cod. 74 (ff. 70v-71r).

impact of his innovations and of the stir these caused at Pomposa, comparing himself to the legendary inventor of the 'flexible glass' (*flexibile vitrum*) who was beheaded by Caesar because the innovation was threatening the value of his royal treasure. Guido's aims, however, went far beyond music. His reform was an urge to turn to the contemplation and study of the sacred scriptures, as well as to daily worship, as a way of fighting the widespread corruption and simony affecting the Church.⁸⁹ For the monk of Pomposa, such corruption was so endemic that he even decided to leave Rome before time while he was staying at a bishop's palace «since now all the bishops have been convicted of the heresy of simony» – perhaps the harsh climate was after all just a pretext.⁹⁰

Guido's critique and activism against simony, eloquently expressed in his letter to Archbishop Heribert of Milan (fl. 1018-1045), would have made him a *persona non grata* in his Pomposa.⁹¹ In this sense, Guido used his musical knowledge and profound passion for liturgy as a highly sophisticated and subtle way to get to the core of the problem: improving liturgical music practice to

⁸⁹ Wido Monachus, pp. 1-7. See also the edition in GILCHRIST, The "Epistola Widonis".

⁹⁰ PESCE, Guido, p. 452; RUSCONI, Guido d'Arezzo. Le opere, p. 135.

⁹¹ See the Italian translation in RUSCONI, *Guido d'Arezzo. Le opere*, pp. 162-165.

pursue an ecclesiastical reform. ⁹² It may be argued that Guido's was only one of a long list of similar undertakings that saw ritual, its transmission and codification as preferred vehicles for church reforms. Yet, the fact that music writing, intertwined with particular forms for its material transmission, was so explicitly and crucially instrumental to Guido's cause – as well as enjoying the largest diffusion any innovation in the history of music had ever known – makes it the most remarkable case of the impact that the circulation of musical ideas, the travelling of music manuscripts and singers had on contemporary society.

The story of a travelling antiphoner and a singing Pope is arguably one of the best known of music history, yet one of the most underrated. Although Guido did not live long enough to see the outcome of his mission, the influence of his ideas and their circulation was incommensurable, and discussions on whether he did in fact 'invent' or not the musical staff as we know it today are misleading.⁹³ More importantly for us, it is about the crucial role of material objects not only in shaping the history of written music, but also as some of the primary agents of ecclesiastical reforms. Such a change in music theory and in conceptualising transmission of music practice, teaching and learning, was primarily the result of a change in the materiality of musical notation. The introduction of the musical staff also considerably altered the way in which music was arranged on the written medium. The wider interlinear space required by the system of parallel lines and by a more accurate vertical placement of music signs, meant an increase in the space needed for notation, in turn affecting the overall organisation of the musical content. For this reason, we can legitimately suppose that Guido's innovations travelled in material form from the beginning, since the correct reception of his instructions would only have been achieved by scribes if they could benefit from direct access to an exemplar of this new technology. The spreading of this notational reform took place relatively swiftly in central Italy, especially thanks to institutional network active in the area under the influence of the Canossa family, the most powerful kindred of the Po plain, which effectively connected central Italy to the north across the Apennines.⁹⁴ By 1150 first in France, Normandy and England, and later on in Germany, Guido's new methods began to be employed in ecclesiastical centres, eventually replacing older, more local notational traditions.

From the eleventh century onwards, with the rise of monastic reforms, music manuscripts began to travel more frequently and systematically, influencing generations of singers on a grander scale than before. Sometimes new ways of writing the sounds of liturgical chant either altered or completely replaced local customs, or simply became the first ever music scripts of new monastic foundations. Musical notation became increasingly more prescriptive, as music practice and

⁹² This is also the main idea behind PAGE, *The Christian West*, Part III: *Towards the First European Revolution*.

⁹³ See HAINES, The Origins of the Musical Staff.

⁹⁴ BAROFFIO, Nota Romana; RUINI, Nota Romana in Aemilia.

composition itself began to rely much more on reading and writing – especially for the most sophisticated polyphonic repertory of later centuries. The history of early singers tells us of orality's agency in the process of transmission; those ephemeral supports (wax tablets, *rotuli*, *libelli*) we discussed speak of the material dimensions of communal music practice; and Guido's *antiphonarium* portrays ecclesiastical reforms and their relationship to the material expression of a musical repertory. Finally, since some of the most important chant manuscript sources never left their original production centres except in later, modern times, and were probably never used directly in music practice, we often encounter a curious paradox by discussing the early transmission of chant through seemingly 'static' objects. However, it is perhaps precisely such material steadiness ensuring their survival which allows us a more nuanced understanding of the intersections between human agency and the material world, identity and social change.

BIBLIOGRAPHY

- *AMS* = HESBERT, Renè-Jean, *Antiphonale Missarum Sextuplex*, Rome 1935.
- *CHMM* = EVERIST, Mark KELLY, Thomas Forrest, eds., *The Cambridge History of Medieval Music*, University Press, Cambridge, 2018.
- ANDRIEU, Michel, Les Ordines Romani du haut moyen âge, Spicilegium Sacrum Lovaniense, Louvain 1931-1965.
- ALBIERO, Laura, *I canti della messa nei frammenti dell'Archivio di Stato di Pavia. Canto, memoria, scrittura*, «Rivista Internazionale di Musica Sacra», 30/2 (2009), pp. 67-95.
- ALBIERO, Laura, *Le fonti liturgico-musicali della diocesi di Como (sec. XI)*, Vox Antiqua, Lugano 2016.
- ARNDT, Wilhelm, ed., *Vita Alcuini*, in *Monumenta Germaniae Historica*. *Scriptores XVI.I*, Hannover 1887, pp. 182-197.
- ATKINSON, Charles, *The Critical Nexus: Tone System, Mode, and Notation in Early Medieval Music*, Oxford University Press, New York and Oxford 2009.
- AUBERT, Eduardo Henrik, When the Roman Liturgy became Frankish. Sound, Performance and Sublation in the Eighth and Ninth centuries, «Études grégoriennes» 40 (2013), pp. 57-160.
- BACHRACH, Bernard S., Charlemagne's Early Campaigns (768-777): A Diplomatic and Military Analysis, Brill, Leiden 2013.
- BAROFFIO, Giacomo, Manoscritti liturgico-musicali italiani fissi, mobili e tascabili intorno al sec. XII, in Aux origines de la liturgie dominicaine: le manuscrit Santa Sabina XIV L 1, eds. Leonard Boyle, Pierre-Marie Gy and Pawels

- Krupa, CNRS Editions-École Française de Rome, Paris-Roma 2004, pp. 83-98.
- BAROFFIO, Giacomo, Manoscritti liturgici e musicali sull'arco alpino fra i secoli IX e XII, in Carlo Magno e le Alpi. Atti del XVIII Congresso Internazionale di Studio sull'Alto Medioevo, Fondazione Centro Italiani di studi sull'Alto Medioevo, Spoleto 2007 (Atti dei congressi 198), pp. 141-150.
- BAROFFIO, Giacomo, *Music Writing Styles in Medieval Italy*, in *The Calligraphy of Medieval Music*, Brepols, Turnhout 2011, pp. 101-124.
- BAROFFIO, Giacomo, 'Nota Romana': L'espansione delle notazioni italiane e l'area d'influsso dei Canossa, in Matilde e il tesoro dei Canossa tra castelli, monasteri e città, a cura di A. Calzona, Silvana, Milano 2008, pp. 164-175.
- BAROFFIO, Giacomo, *Notazioni neumatiche (secoli IX-XIII) nell'Italia settentrionale: Inventario sommario*, «Aevum» 83/2 (2009), pp. 529-579.
- BISCHOFF, Bernhard, hrsg. von, *Katalog der festländischen Handschriften des neunten Jahrunderts*, 3 vols., Harrassowitz, Weisbaden, 1998-2014.
- BOE, John, *Chant Notation in Eleventh-Century Roman Manuscripts*, in *Essays on Medieval Music in Honor of David G. Hughes*, ed. Graeme MacDonald Boone, Isham Library Papers, Cambridge (MA) 1995, pp. 43-57.
- BOE, John, Music Notation in Archivio San Pietro C 105 and in the Farfa Breviary, Chigi C. VI. 177, «Early Music History» 18 (1999), pp. 1-45.
- BOWER, Calvin M., ed., *The Liber Ymnorum of Notker Balbulus*, 2 vols., Henry Bradshaw Society, London, 2016.
- BOWLUS, Charles R., *Italia-Bavaria-Avaria: The Grand Strategy behind Charle-magne's* Renovatio Imperii *in the West*, «Journal of Medieval Military History» 1 (2002), pp. 43-60.
- BROWN, Michelle P. GARIPZANOV, Ildar H. TILGHMAN, Benjamin C., eds., *Graphic Devices and the Early Decorated Book*, Boydell Press, Woodbridge 2017.
- BRUSA, Gionata, *I manoscritti agiografici della Biblioteca Capitolare di Vercelli. Con un'appendice sui frammenti*, «Analecta Bollandiana», 134/1 (2016), pp. 100-148.
- BUSSE BERGER, Anna Maria, *Teaching and Learning Music*, in *CHMM*, pp. 475-499.
- CAVALLO, Guglielmo, a cura di, *Exultet: Rotoli liturgici del medioevo meridio-nale*, Istituto Poligrafico e Zecca dello Stato, Rome 1994.
- COLANTUONO, Maria Incoronata, *Il breviario pomposiano Ms. Udine Biblioteca Arcivescovile*, 79, in *Guido d'Arezzo*, pp. 185-200.

- COLGRAVE, Bertram MYNORS, Roger A.B., eds., *Bede's Ecclesiastical History of the English People*, Clarendon, Oxford 1969.
- COSGROVE, Charles, An Ancient Christian Hymn with Musical Notation: Papyrus Oxyrhynchus 1786: Text and Commentary, Mohr Siebeck, Tübingen 2011.
- D'AGOSTINO, Marco, Furono prodotti manoscritti greci a Roma tra i secoli VIII e IX? Una verifica codicologica e paleografica, «Scripta», 6 (2013), pp. 41-56.
- DE FRAMOND, Martin PERRE, Didier, *Le sacramentaire du Puy-en-Velay (XIe siècle)*, «Les cahiers de la Haute-Loire» (2015), pp. 27-29.
- DYER, Joe, *The Boy Singers of the Roman Schola Cantorum*, in *Young Choristers* 650-1700, eds. Susan Boynton and Eric Rice, Boydell Press, Woodbridge 2008, pp. 19-36.
- DYER, Joe, *The Schola cantorum and its Roman Milieu in the Early Middle Ages*, in *De Musica et Cantu*, eds. Peter Cahn, Ann-Katrin Heimer, Georg Holms Verlag, Hildesheim 1993, pp. 19-40.
- DYER, Joe, *St. Peter and His Neighbors: Reflections on Roman and Italian Chant*, in *'Nationes'*, *'Gentes' und die Musik im Mittelalter*, hrsg. von Frank Hentschel und Marie Winkelmüller, De Gruyter, Berlin 2014, pp. 287-340.
- DYER, Joe, Sources of Romano-Frankish Liturgy and Music, in CHMM, pp. 92-121.
- EIFRIG, Wiliam F. PFISTERER, Andreas, hrsg. von, *Melodien zum Ite missa est und ihre Tropen*, Bärenreiter, Kassel 2006 (Monumenta Monodica Medii Aevi, 19).
- FALLA CASTELFRANCHI, Marina, *I monasteri greci a Roma*, in *Aurea Roma*. *Dalla città pagana alla città cristiana*, a cura di Serena Ensoli ed Eugenio La Rocca, L'Erma di Bretschneider, Roma 2000, pp. 221-226.
- FATUCCHI, Alberto, Itinerari medievali dalla Toscana attraverso la Romagna e l'Emilia orientale, in Guido d'Arezzo monaco pomposiano. Atti dei Convegni di Studio (Codigoro, Ferrara, Abbazia di Pomposa, 3 ottobre 1997 Arezzo, Biblioteca della Città di Arezzo 29-30 maggio 1998), a cura di Angelo Rusconi, Olschki, Firenze 2000 (Quaderni della «Rivista Italiana di Musicologia» 34), pp. 81-107.
- GANZ, David, *Book Production and the Spread of Caroline Minuscule*, in *The New Cambridge Medieval History*, eds. Rosamond McKitterick, University Press, Cambridge 1995, vol. 2, pp. 786-808.
- GILCHRIST, John T., *The "Epistola Widonis"*. Ecclesiastical Reform and Canonistic Enterprise, in Authority and Power, ed. Brian Tierney and Peter Linehan, University Press, Cambridge 1980, pp. 49-58.

- GRIER, James, *Adémar de Chabannes*, *Carolingian Musical Practices*, *and* Nota Romana, «Journal of the American Musicological Society», 56 (2003), pp. 43-98.
- GRIER, James, *The Musical World of a Medieval Monk: Adémar de Chabannes in Eleventh-Century Aquitaine*, University Press, Cambridge 2006.
- GRIER, James, *Adémar de Chabannes* (989-1034) and *Musical Literacy*, «Journal of the American Musicological Society», 66/3 (2013) pp. 605-638.
- GRIER, James, Adémar de Chabannes (989-1034) as Musicologist, in Medieval Cantors and Their Craft: Music, Liturgy, and the Shaping of History (800-1500), eds. Katie Ann-Marie Buygis, Andrew B. Kraebel and Margot Fassler, York Medieval Press with Boydell and Brewer, Woodbridge 2017, pp. 90-102.
- HAAS, Max, Musikalisches Denken im Mittelalter: Eine Einführung, Peter Lang, Bern 2005.
- HAEFELE, Hans F., hrsg. von, *Casus Sancti Galli*, Wissenschaftliche Buchgesellschaft, Darmstadt 1980 (Ausgewählte Quellen zur deutschen Geschichte des Mittelalters, 10).
- HAINES, John, Manuscript Sources and Calligraphy, in The Cambridge Companion to French Music, ed. Simon Trezise, University Press, Cambridge 2015, pp. 293-312.
- HAINES, John, *The Origins of the Musical Staff*, «Musical Quarterly», 91/3-4 (2008), pp. 327-378.
- HAINES, John, ed., The Calligraphy of Medieval Music, Brepols, Turnhout 2011.
- HAUG, Andreas, Gesungene und schriftlich dargestellte Sequenz: Beobachtungen zum Schriftbild der ältesten ostfrankischen Sequenzenhandschriften, Hänssler Verlag, Neuhausen-Stuttgart 1987.
- HAUG, Andreas, *Noch einmal: Roms Gesang und die Gemeinschaften im Norden*, in '*Nationes*', '*Gentes*' und die Musik im Mittelalter, hrsg. von Frank Hentschel und Marie Winkelmüller, De Gruyter, Berlin 2014, pp. 103-146.
- HAUG, Andreas, *Re-Reading Notker's Preface*, in *Quomodo cantabimus canticum*?, pp. 65-80.
- HAUKE, Hermann, hrsg. von, Katalog der lateinischen Fragmente der Bayerischen Staatsbibliothek München, Harrassowitz Verlag, Wiesbaden 1994.
- HILEY, David, *ad vocem* «Notker», in *The New Grove Dictionary of Music and Musicians*, eds. S. Sadie and J. Tyrrell, Macmillan Publishers, London 2001, XVIII, pp. 201-202.
- HILEY, David, Western Plainchant, Clarendon, Oxford 1993.

- HOFFMANN, Hartmut, *Buchkunst und Königtum im Ottonischen und frühsalischen Reich*, 2 vols., Anton Hiersemann, Stuttgart 1986 (Schriften der Monumenta Germaniae Historica 30).
- HORNBY, Emma, The Transmission of Western Chant in the 8th and 9th Centuries: Evaluating Kenneth Levy's Reading of the Evidence, «Journal of Musicology», 21/3 (2005), pp. 418-457.
- HOURLIER, Jacques, *Le domaine de la notation messine*, «Revue grégorienne», 30 (1951), pp. 96-113.
- HUGLO, Michel, *Le domaine de la notation bretonne*, «Acta musicologica», 35 (1963), pp. 53-84.
- HUGLO, Michel, Les livres de chant liturgique, Brepols, Turnhout 1988.
- HUGLO, Michel, Les remaniements de l'antiphonaire grégorien au IXe siècle: Hélisachar, Agobard, Amalaire, in Culto cristiano politica imperiale carolingia, CISAM, Spoleto 1979 (Convegni del Centro di Studi sulla Spiritualità Medievale 18), pp. 87-120.
- HUGLO, Michel, The Cantatorium, from Charlemagne to the Fourteenth Century, in The Study of Medieval Chant: Paths and Bridges, East and West. In Honor of Kenneth Levy, ed. Peter Jeffery, Boydell Press, Woodbridge 2001, pp. 89-103.
- KELLY, Thomas Forrest, *The Exultet in Southern Italy*, Oxford University Press, Oxford 1996.
- KLUGSEDER, Robert, *Découvertes d'importantes sources liturgiques et musicales de Salzbourg et du Puy-en-Velay*, «Les cahiers de la Haute-Loire», (2015), pp. 30-48.
- KOHLHÄUFL, Josef, Die Tironischen Noten im Codex Laon 239: Ein Beitrag zur Paläographie der Litterae significativae, «Musicologica Austriaca», 15 (1996), pp. 133-156.
- KRUCKENBERG, Lori, *Neumatizing the Sequence: Special Performances of Sequences in the Central Middle Ages*, «Journal of the American Musicological Society», 59/2 (2006), pp. 243-317.
- KRUCKENBERG, Lori, *Ekkehard's Use of Musical Detail in the* Casus Sancti Galli, in *Medieval Music in Practice: Studies in Honor of Richard Crocker*, ed. Judith A. Peraino, American Institute of Musicology, Middelton (WI) 2013, pp. 23-57.
- KRUCKENBERG, Lori, ad vocem «Sequence», in CHMM, pp. 300-356.
- KRUCKENBERG, Lori, Singing History: Chant in Ekkehard IV's Casus Sancti Galli, in Medieval Cantors and Their Craft: Music, Liturgy, and the Shaping of History (800-1500), eds. Katie A.-M. Bugyis, Andrew B. Kraebel, and Margot E. Fassler, York Medieval Press, Woodbridge 2017, pp. 59-88.

- Le graduel romain. Édition critique par les moines de Solesmes, IV: Le texte neumatique, 2: Les relations généalogiques des manuscrits, Abbaye Saint-Pierre, Solesmes 1962.
- LEVY, Kenneth, *A New Look at Old Roman Chant II*, «Early Music History», 20 (2001), pp. 173-198.
- LEVY, Kenneth, *Charlemagne's Archetype of Gregorian Chant*, «Journal of the American Musicological Society», 40 (1987), pp. 1-30.
- LÜTOLF, Max, *Das Graduale von Santa Cecilia in Trastevere (Cod. Bodmer 74)*, Fondation Martin Bodmer, Geneva 1987.
- MCKITTERICK, Rosamond, Music, Identity and Community in the Frankish Realms in the Eighth and Ninth Centuries: The Musica enchiriadis and Its Implications, in 'Nationes', 'Gentes' und die Musik im Mittelalter, hrsg. von Frank Hentschel und Marie Winkelmüller, De Gruyter, Berlin 2014, pp. 33-52.
- MCKITTERICK, Rosamond, *The Frankish Church and the Carolingian Reformers*, 789-895, Longman, London 1983.
- MIGNE, Jean Paul, éd. par, *Amalarius presbyter Metensis et chorepiscopus. De ordine antiphonarii*, in *Patrologia Latina* CV, Paris 1864, cols. 1243-1315.
- MORISON, Stanley, Politics and Script: Aspects of Authority and Freedom in the Development of Greco-Latin Script from the Sixth Century B.C. to the Twentieth Century A.D., Clarendon, Oxford 1972.
- NOBLE, Thomas F. X., *Literacy and the Papal government in Late Antiquity and the Early Middle Ages*, in *The Uses of Literacy in Early Medieval Europe*, ed. Rosamond McKitterick, University Press, Cambridge 1990, pp. 82-108.
- PAGE, Christopher, *The Christian West and Its Singers*, Yale University Press, New Haven 2010.
- PALAZZO, Éric, Le rôle des libelli dans la pratique liturgique du haut Moyen Âge. Historie et typologie, «Revue Mabillon» 1 (1990), pp. 9-36.
- PERTZ, Georg Heinrich, ed., Pauli Wanefridi. Liber de episcopis Mettensibus, Monumenta Germaniae Historica. Scriptores II, Hannover 1829, pp. 260-268.
- PESCE, Dolores, Guido d'Arezzo's Regule Rithmicae, Prologus in Antiphonarium, and Epistola ad Michaelem, Institute of Medieval Music, Ottawa 1999, pp. 438-458.
- PETRUCCI, Armando, Writers and Readers in Medieval Italy: Studies in the History of Written Culture, Yale University Press, New Haven 1995.
- PFISTERER, Andreas, Cantilena Romana. Untersuchugen zur Überlieferung des gregorianischen Chorals, Hans Schneider, Tützing 2002.

- PFISTERER, Andreas, *Origins and Transmission of Franco-Roman Chant*, *CHMM*, pp. 69-91.
- POHL, Walter REIMITZ, Helmut, hrsg. von, *Grenze und Differenz im frühen Mittelalter*, Academy of Sciences, Vienna, 2000.
- RANKIN, Susan, Calligraphy and the Study of Neumatic Notations, in The Calligraphy of Medieval Music, pp. 47-62.
- RANKIN, Susan, *Carolingian Liturgical Books: Problems of Categorisation*, «Gazette du Livre Médiéval», 62 (2016), pp. 21-33.
- RANKIN, Susan, *Carolingian Music*, in *Carolingian Culture: Emulation and In-novation*, ed. Rosamond McKitterick, University Press, Cambridge 1993, pp. 274-316.
- RANKIN, Susan, *Ego itaque Notker scripsi*, «Revue bénédictine», 101 (1991), pp. 268-298.
- RANKIN, Susan, From Tuotilo to the First Manuscripts: The Shaping of a Trope Repertory at St Gall, in Recherches nouvelles sur les tropes liturgiques, éd. par Wulf Arlt et Gunilla Björkvall, Almquist & Wiksell, Stockholm 1993, pp. 395-413.
- RANKIN, Susan, *Identity and Diversity: The Idea of Regional Musical Notation*, in *'Nationes'*, *'Gentes' und die Musik im Mittelalter*, hrsg. von Frank Hentschel und Marie Winkelmüller, De Gruyter, Berlin 2014, pp. 375-394.
- RANKIN, Susan, *Notker bibliothecarius*, in *Medieval Cantors and Their Craft: Music, Liturgy, and the Shaping of History (800-1500)*, eds. K. Buygis, A. B. Kraebel and Margot Fassler, York Medieval Press with Boydell and Brewer, Woodbridge 2017, pp. 41-58.
- RANKIN, Susan, *Notker and Tuotilo: schöpferische Gestalter in einer neuen Zeit*, «Schweizer Jahrbuch für Musikwissenschaft. Ser. NF», 11 (1991), pp. 17-42.
- RANKIN, Susan, *On the Treatment of Pitch in Early Music Writing*, «Early Music History», 30 (2011), pp. 105-175.
- RANKIN, Susan, *The Earliest Sources for Notker's Sequences: St Gallen, Vadiana* 317, and Paris, Bibliothèque Nationale, lat. 10587, «Early Music History» 10 (1991), pp. 201-233.
- RANKIN, Susan, *The Making of Carolingian Mass Chant Books*, in Quomodo cantabimus canticum? *Studies in Honor of Edward H. Roesner*, eds. David Butler Cannata *et al.*, American Institute of Musicology, Middleton (WI) 2008, pp. 37-63.
- RANKIN, Susan, The Song School of St Gall in the Later Ninth Century, in The Arts and Letters in Medieval and Baroque St Gall Viewed from the Twentieth Century, ed. James C. King, Peter Lang, New York 1993, pp. 173-198.

- RANKIN, Susan, Ways of Telling Stories, in Essays on Medieval Music in Honor of David G. Hughes, ed. Graeme Boone, University Press, Harvard 1995, pp. 371-394.
- ROLLAND, Martin, *Le sacramentaire du Puy-en-Velay, description préliminaire*, «Les cahiers de la Haute-Loire», (2015), pp. 49-69.
- RUINI, Cesarino, Nota Romana in Aemilia: Documenti sulla diffusione della notazione dell'Italia centrale nella diocesi di Reggio Emilia, in Cantus Planus: Papers Read at the 15th Meeting of the IMS Study Group, eds. Barbara Haggh-Huglo, Debra Lacoste et al., Institute of Mediaeval Music, Lions Bay (BC) 2013, pp. 545-559.
- RUSCONI, Angelo, a cura di, *Guido d'Arezzo. Le Opere. Micrologus, Regulae rhytmicae, Prologus in Antiphonarium, Epistola ad Michaelem, Epistola ad archiepiscopum Mediolanensem*, SISMEL, Firenze 2008 (La Tradizione Musicale. Studi e Testi, 10).
- SANDERSON, Warren, *Archbishop Radbod, Regino of Prüm and Late Carolingian Art and Music in Trier*, «Jahrbuch der Berliner Museen», 24 (1982), pp. 41-61.
- SAMARITANI, Antonio, *Contributi alla biografia di Giudo a Pomposa e Arezzo*, in *Guido d'Arezzo*, pp. 111-129.
- SCAPPATICCI, Leandra, *Codici e liturgia a Bobbio. Testi, musica e scrittura: secoli X ex.-XII*, Libreria Editrice Vaticana, Vatican 2008.
- SCHÄR, Max, Gallus. Der Heilige in seiner Zeit, Schwabe, Basel 2011.
- STÄBLEIN, Bruno, *Schriftbild der einstimmigen Musik*, Deutscher Verlag für Musik, VEB, Leipzig 1975.
- STÄBLEIN, Bruno, *ad vocem* «Sequenz», in *Die Musik in Geschichte und Gegenwart*, hrsg. von Friedrich Blume, Bärenreiter, Kassel 1965, Sachteil XII, cols. 522-549.
- STÄBLEIN, Bruno, *ad vocem* «Notker Balbulus», in *Die Musik in Geschichte und Gegenwart*, hrsg. von Friedrich Blume, Bärenreiter, Kassel 1994, Personenteil XII, cols. 1208-1210.
- THANER, Friedrich, ed., Wido Monachus. Epistola ad Heribertum Archiepisco-pum, Monumenta Germaniae Historica. Leges I, Hannover 1891.
- VARELLI, Giovanni, *Appunti sulla nonantolana come più antico canone notazionale di area italiana*, «Studi Gregoriani» 30, pp. 47-76.
- VARELLI, Giovanni, *Musical Notation and Liturgical Manuscripts in Late Carolingian Nonantola*, PhD dissertation, University of Cambridge 2017.
- VARELLI, Giovanni, *Politics and Geographies of Early Music Writing (Italy, ca. 850-1050)*, «Gazette du Livre Médiéval», 62 (2016), pp. 85-86.

VARELLI, Giovanni, *The Early Written Transmission of Chant in Northern Italy:* The Evidence of Milan, Biblioteca Ambrosiana, B 48 sup., ff. 141-142, «Études grégoriennes», 40 (2013), pp. 253-82.

VON DEN STEINEN, Wolfram, *Notker der Dichter und seine geistige Welt*, 2 vols., A. Francke, Bern 1948.

WINKELMÜLLER, Marie, Die "mos... veteranorum cantorum" des Aurelianus Reomensis und die Stellung der gallikanischen Liturgie im Westfrankenreich des späten 9. Jahrhunderts, in 'Nationes', 'Gentes' und die Musik im Mittelalter, hrsg. von Frank Hentschel und Marie Winkelmüller, De Gruyter, Berlin 2014, pp. 89-102.

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