

**MUSIC AT CLUNY:  
THE TRADITION OF GREGORIAN CHANT FOR  
THE PROPER OF THE MASS.  
MELODIC VARIANTS AND MICROTONAL  
NUANCES.**

Volume I

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## ABSTRACT

This dissertation is centered on the musical component of the monastic liturgy performed at the abbey of Cluny, particularly the chants for the Proper of the Mass. The available literature on liturgy and music at Cluny is thoroughly reviewed and evaluated. An overview of the musical sources follows, including extensive discussion of some manuscripts.

The notational characteristics, the rhythmic features and the melodic implications of the Cluny Gradual are then analysed. The melodic tradition of Cluny is at first discussed on the basis of its choice of Introit tones. With the help of two diastematic Cluniac MSS, fifty-four problematic pieces are afterwards examined, revealing common Cluniac characteristics, but also a number of disagreements mostly due to the impact of modal theory and the presence in the repertory of "displaced" semitones.

In order to place Cluny in a larger context, a chapter on melodic variants follows. On the basis of fifty-five MSS and 250 points of variance (presented in Appendix 1), the complex issue of variation in the manuscript tradition is discussed and a new theory of melodic change is proposed, encompassing the implications of mnemonics, the tendency to increase vocal economy, accidents in the transmission process, the effects of local performance practice and self-conscious artistry or expertise, and the influence of the Gallican and "Barbarian" cultural substrata on the regional development of chant.



Since the Cluny Gradual includes special neumes indicating minute tonal inflections, two chapters on the problem of enharmonic microtones in Gregorian chant follow. Jacques Froger's position relative to the Dijon Tonary is discussed and refuted. Ancient Greek and medieval writings on the use of *dieses* are reviewed. An important interpolation in Guido of Arezzo's *Micrologus* is translated with a commentary and its musical example newly edited. Finally, four MSS with microtonal indications (the Cluny Gradual, the Dijon Tonary, and the Missals from Stavelot and Utrecht) and additionally, a Gradual from Trier, are compared in ninety pieces (Appendix 2). In the corresponding discussion, neumes like the gutturalis, the oriscus, the porrectus, the pressus, the quilisma, the salicus and the trigon are given a fresh look.

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# **A .**

## **PRELIMINARY OVERVIEW**

"On cherche vainement une étude  
approfondie [...] sur la musique  
de l'illustre abbaye [Cluny]"

Philibert Schmitz, 1960

"Hemos de confesar que sobre  
la actividad musical de Cluny  
estamos poco informados"

Higinio Anglés, 1970

"Cluny's liturgy and chant have  
not received detailed attention  
in proportion to their fame"

David Hiley, 1993

## CHAPTER 1

### INTRODUCTION

- 1. 1 THE HISTORICAL IMPORTANCE OF CLUNY
- 1. 2 THE ORDER OF CLUNY
- 1. 3 THE LITURGY AT CLUNY
- 1. 4 MUSICAL COMPOSITION AT CLUNY
- 1. 5 CLUNY AND MEDIEVAL MUSICAL THOUGHT

#### 1. 1 THE HISTORICAL IMPORTANCE OF CLUNY

The abbey of Cluny (founded in 909, dissolved in 1790), located approximately 20 km to the northeast of Mâcon, is possibly the most famous of medieval French monasteries —and with full justification. Center of a successful movement for monastic reform which spread throughout Western Europe, champion of monastic independence from local (lay or episcopal) lords, educator of bishops and popes, spiritual advisor to kings and emperors, Cluny, from the second quarter of the tenth through the mid-twelfth century, was the most influential of the Benedictine monasteries in the Latin world<sup>1</sup>.

Cluny was founded by a former monk of St. Martin d'Autun, Berno, abbot of Gigny and Baume, on the initiative of Duke William of



Aquitaine. Its foundation charter provided a rare degree of autonomy: freedom from lay or ecclesiastical interference in the election of the new abbot, and full control over its property. So that this autonomy was respected, Cluny was donated to the Apostles Peter and Paul and placed under Rome's immediate spiritual protection. Later on, due to the cultivation of its special ties with Rome, Cluny was able to limit and, finally, totally exempt itself from diocesan jurisdiction. This exemption included all Cluniac monks, irrespective of their residence. Thus, in spite of the fact that the Cluniac way of monastic life was in its essence a continuation of Carolingian monasticism, Cluny benefited from an innovative trend, started with the foundation of Vézelay in 858/9, which allowed a monastery to receive a grant of immunity from a powerful local authority on account of a privileged connection with the papacy, thus establishing its "liberty" from secular or episcopal rule<sup>2</sup>. It was this fact, more than the extension of the abbatial authority of Cluny over other monasteries put under its guidance, that distinguished it from the parallel monastic reform movement led by Gorze (Metz), in Eastern Europe<sup>3</sup>, and, in the eleventh century, also from the influential monastery of Marmoutier (Tours), which had earlier been reformed under Cluniac guidance<sup>4</sup>.

The connection with Rome enables us to understand Cluny's special relationship to the so-called Gregorian reform movement in the second half of the eleventh century, in which Cluny supported the extension of papal rule over the whole church and the moral renewal of the clergy<sup>5</sup>. Cluniac "liberty" may have influenced the mind-set of Gregory VII (1073-1085), who as a former monk must

have been aware of Cluniac ideals; it certainly molded the views of Urban II (1088-1099) and Paschal II (1099-1118), who had been educated as monks at Cluny and were willing, when elected to St. Peter's throne, to please the Abbey.

It has been claimed that in the tenth and early eleventh centuries, Cluny, in return for protection, forged a political and ecclesiastical alliance with the papacy, making itself an instrument of papal policy on the larger European scene. The support given by the Cluniacs to the Gregorian reform movement would have been the logical outcome of this. But Gerd Tellenbach, among others, refutes this vision: he doubts that the popes, before the mid-eleventh century, could play any large European role, and stresses that Cluny's support of the Gregorian ideals of reform was independent of papal policy, as shown by its role of political mediator between the pope and the emperor<sup>6</sup>. Guy de Valous makes it clear that, before the end of the eleventh century, Cluny's close links with the emperor obtained for him either its political complicity or its neutrality<sup>7</sup>. Still, it is not without justification that Dom Berlière emphasizes the international role of the Cluniac abbots and affirms that the Cluniac concept of monastic liberty and submission to Rome prefigures the Gregorian opposition to lay investiture of bishops<sup>8</sup>. In the same spirit, C. H. Lawrence states that "Cluny, by its idealism, its assertion of spiritual autonomy, and its constant appeal to papal protection [...] helped create the necessary spiritual climate in which the reform movement could flourish [...] And the fact that they owed their own freedom from lay interference and episcopal jurisdiction to the favour of St Peter and his vicar made them natural allies of the

papacy in its struggle to assert its spiritual authority over Christendom"<sup>9</sup>. The Gregorian reform movement contributed, however, to eroding the ideological foundations of Cluny's supremacy, both by promoting the belief that even an old and established custom must be abolished if it is contrary to the truth (as interpreted by the Pope) or the old authority of the Fathers (a belief which lies in the core of the Cistercian critique of traditional monasticism)<sup>10</sup>, and by asserting, through the extension of papal authority, the association of St. Peter with Rome rather than with St. Peter's monks at Cluny<sup>11</sup>.

As Cluny was the single most influential Benedictine monastery in the history of the medieval Western church, the study of its musical tradition needs no further justification. But already in 1958, Philibert Schmitz complained that he had vainly searched for a serious musicological study of Cluny<sup>12</sup>. In Higinio Anglés's posthumous book on the music of Navarre, which culminated a long and brilliant musicological career, he tentatively assesses Cluny's musical culture and its own contribution to music, only to remark that not much is known about the musical activities at the abbey<sup>13</sup>. Both Schmitz and Anglés attribute this fact to the scarcity of surviving musical manuscripts written there. This is certainly true, but not enough research has been done on the few manuscripts that do survive and others closely related. Michel Huglo's article on Cluniac monks in *The New Grove* presents an excellent overview, but it is symptomatic that the presentation of the sources occupies almost four times as many lines as does the presentation of the "general features of Cluniac chant" as revealed by modern

comparative research<sup>14</sup>. Even taking into account the important contributions of Ruth Steiner and David Hiley published since, there is as yet not much to add<sup>15</sup>. Hiley's complaint that "Cluny's liturgy and chant have not received detailed attention in proportion to their fame" is thus entirely justified<sup>16</sup>. Liturgical chant at Cluny being a vast and demanding area of study, every research project will be of necessity only a limited contribution to our understanding of the subject. This dissertation (of which some results were presented, in a preliminary form, at the 1993 Cantus Planus meeting)<sup>17</sup> is centered on the proper chants of the Mass and does not consider, therefore, the bulk of the chant repertoire sung at the abbey. Still, it is hoped that the fresh information offered here will be able to deepen our historical understanding both of Cluny and of Gregorian chant as practiced in the tenth and eleventh centuries.

## 1.2 THE ORDER OF CLUNY

Although Cluny is the location of a single monastery, the so-called "order of Cluny" and the related expression "Cluniac" may refer to a number of very different realities, sometimes only vaguely or distantly connected with the Cluny abbey. In tenth-century France, the *Ordo monasticus* does not refer to a group of monasteries, but rather to an ascetic, collective way of life inspired by the Rule of Saint Benedict<sup>18</sup>. Odo, the second abbot of Cluny (927-942), brought together a number of monastic houses under his personal authority, laying the basis of what would become a stable congregation. But the

fact that Cluny was called in to reform other monastic communities, either by direct intervention of its abbot or by providing them with a new abbot from its ranks, did not necessarily bring out their submission or a long-term connection between those communities and Cluny. "The "Cluniac way of monastic life" could be shared by monasteries which legally were subject to a king, a bishop, or a noble layman [...] The picture becomes still more blurred when we consider that a link with Cluny might be only a temporary one"<sup>19</sup>. Thus, the "order of Cluny" was not an order in the modern (post-Cistercian) sense, i. e. a single collective body, until the early thirteenth century, when its General Chapter came into existence<sup>20</sup>.

It can therefore be argued that the order of Cluny encompassed both a large circle of influence and a narrowly-defined congregation. Although the abbot of Cluny was also the head of the congregation, he did not govern on an authoritarian basis. Even after the congregation became more stringently organized in the course of the eleventh century, discipline was difficult to enforce: in the twelfth century, Peter the Venerable had to threaten the members of his monasteries with excommunication to ensure obedience, and even in as crucial a matter as papal election, differences of opinion could arise in different Cluniac houses<sup>21</sup>. Thus, "the image of Cluny as a highly organized, strictly centralized system is manifestly false", writes Noreen Hunt. "What is surprising is the lack of a system in so large a body, claiming so strong a unity"<sup>22</sup>. The congregation was rather a loose and diverse union of monastic houses, most of them very small<sup>23</sup>. "The bond that undoubtedly existed between the Cluniac monasteries was found in allegiance to the Abbot of Cluny, a

common observance, control of the appointment of priors and the custom of profession at Cluny. All these links had erratic features"<sup>24</sup>.

The Cluniac order can therefore be described as a multi-leveled network with linkages of varying (sometimes minimal) strength. The abbot of Cluny was the head of the congregation and responded only to the monks of Cluny, who *de jure* elected him (but *de facto* consented to have him nominated by the preceding abbot). The monastery, dedicated to St. Peter and St. Paul, was put under the direct protection of the Pope, who warranted its juridical and financial "liberty" from lay and, from the eleventh century onwards, also episcopal claims, but had no authority in internal affairs. The supremacy of the abbot over other houses was exercised in a number of forms, either directly, through personal visits and political or economical protection, or indirectly, through other Cluniac monasteries or chosen monks; the payment of an annual tribute helped to reinforce the hierarchical bond.

The Cluniac network comprised, however, both independent houses and communities which by right belonged to the congregation (although most were in fact autonomous). The stronger connection with Cluny was provided by the priories it had founded or which directly depended on it, of which five (the so-called *quinque filiae*) were especially important: Souvigny (in the north of the Clermont diocese, to the east of Cluny), founded in 920; Sauxillanges (near Clermont), which became a Cluniac priory in 950; La-Charité-sur-Loire (diocese of Auxerre, north of Nevers), a Cluniac priory in 1056; Lewes (England), founded in 1077; and St. Martin des Champs (Paris), a Cluniac priory from 1079 onwards<sup>25</sup>. In practice, their priors, who

were nominated by Cluny, were full administrators, the functional equivalent of abbots, except that they could be removed by the abbot of Cluny. The dependencies founded by the priories responded to them. The autonomy tended to be greater in dependent monasteries established by Cluny and especially so in those monasteries incorporated by Cluny in order to reform them<sup>26</sup>. Some of these last, formerly independent, were governed by priors who, before the twelfth century, kept the abbatial rank or title, or revived it in order to seek freedom from the personal control of the abbot of Cluny. The connection with Cluny was much looser in monasteries which had been just put under the surveillance of its abbot, like the important monasteries of Moissac, Saint-Martial de Limoges, Figeac and Vézelay, which had their own dependencies. There were also houses where, in spite of the absence of any formal links with Cluny, the way of life was more or less parallel to that of Cluny and the influence of the Burgundian abbey was significantly felt, either by indirect intervention (Sahagún) or by emulation (Hirsau). Finally, some monasteries were reformed by Cluny but, the connection being temporary, either never fully entered its liturgical sphere or were quick to develop their own identity (Fleury, Saint-Bénigne de Dijon, Saint-Denis, Corbie, Marmoutier). At the lowest end of the scale, there were a great number of establishments outside the Cluniac circle which were received into confraternity by Cluny, and whose members had therefore the right to be prayed for and commemorated upon death along with Cluniac monks.

In fact, depending on the degree of liturgical adherence and of subjection to Cluny, one can speak of between thirty-four or as many

as two thousand monasteries belonging to the Cluniac sphere in the mid-twelfth century<sup>27</sup>. These different levels of possible relationship with Cluny allowed the label "Cluniac" to be loosely applied in the twelfth century to denote "traditional Benedictine monasticism" as opposed to the emerging Cistercian movement<sup>28</sup>. Even if only those monasteries and priories having a close, formal connection with Cluny are taken into account (not more than about two hundred in the twelfth century), liturgical unity is still imperfect, as is observed by Michel Huglo:

" Dans «l' Ordre clunisien», on peut déceler une certaine unité qui n'exclut pourtant pas la conservation d'usages antérieurs à l'affiliation —en particulier dans certaines puissantes maisons telles que Corbie et Moissac —, voire même les innovations particulières. Ainsi, les graduels clunisiens ont tous à peu près la même liste de pièces variables et les antiphonaires de l'office, à Cluny même, sont identiques à ceux des autres maisons de l'ordre. Cependant, les variantes musicales d'un monastère à l'autre sont assez notables et il est possible de rencontrer des manuscrits clunisiens, ne provenant pas de la même maison, différents sur plusieurs points, malgré leur «fonds commun» qui permet précisément de déterminer leur origine clunisienne"<sup>29</sup>. Huglo adds that some dependent monasteries, e. g. Saint-Martial de Limoges, retained distinctive local melodies, and that "noted sources of Office chants from monasteries affiliated to Cluny often differ from the *Ordo cluniacensis* in important respects, notably in the Office for Christmas, All Saints and, above all, Easter"<sup>30</sup>. David Hiley also remarks that "although work on many sources remains to be done, it is clear that when a monastery adopted the



order of service and selection of chants performed at Cluny, it might continue to sing those chants in the old way"<sup>31</sup>.

Liturgical differences between Cluniac houses are nowhere as apparent as in the readings for the office, which, not being memorized, could be changed more readily than chants. Raymond Étaix established that the lectionary used in Cluny was ignored by monasteries which were part of the congregation, while it was adopted by monasteries which had only spiritual ties with the Burgundian abbey<sup>32</sup>. The same happened with the *Ordo Missae* of Cluny (private prayers said during the Mass), which was followed by only a few houses affiliated with it, but did not fail to be influential outside the Cluniac congregation<sup>33</sup>. Moreover, most "Cluniac" houses had only a handful of monks and lacked the human and material means, namely books, to put onto practice the elaborate liturgy followed at Cluny<sup>34</sup>; since, for instance, a house with four monks had to sing Lauds, Vespers and Mass every day<sup>35</sup>, in the absence of Cluniac notated books, non-Cluniac manuscripts would be welcome.

For us to be able to ascertain, from a musical point of view, how much deviation from liturgical usage in Cluny was allowed in other "Cluniac" monasteries, the first thing to do is to get a clear picture of the liturgy in the Cluny abbey itself. In this dissertation, therefore, I will try to stay as close to Cluny as the extant sources allow. Information lacking in manuscripts from Cluny will be sought primarily in books written for one of its *quinque filiae*.

### 1.3 THE LITURGY AT CLUNY

Cluny was specially famous for the strictness of its rule of silence<sup>36</sup> and for its solemn, prolix liturgy<sup>37</sup>. The liturgical usages of Cluny were first codified in its customaries; from around 1100 onwards, new monastic legislation (clarifications, additions and changes) took the form of short documents issued by the abbot, the abbatial statutes<sup>38</sup>. The customaries are "highly practical applications and amplifications of the Benedictine Rule, to which they stood in a relation, *mutatis mutandis*, resembling that of laws to a modern constitution [...] A particular copy of a customary [...] represents the usage in a certain house at a certain time, but customaries were not in their nature [...] fixed documents. [...] Recent research [...] has shown that their texts changed constantly"<sup>39</sup>. In addition, customaries are often contradictory<sup>40</sup> and may not mirror liturgical practice exactly as embedded in contemporary liturgical manuscripts<sup>41</sup>.

The customaries directly relevant to the study of the liturgy at Cluny are: the *Consuetudines antiquiores cluniacenses*, known to us in two recensions, the earliest of which probably dates from the beginning of the eleventh century<sup>42</sup>; the *Liber tramitis* ("Book of the Way", also known as the Customs of Farfa), a copy made at Cluny for the abbey of Farfa in the Sabina mountains around 1045<sup>43</sup>; the *Ordo cluniacensis* or Bernard's customary, surviving in two different recensions, of which one, according to recent scholarship, was written by Ulrich between 1074 and 1083 on the basis of a lost first redaction of Bernard's text (c. 1070), and the other corresponds to a second, much reworked Bernardine redaction (c. 1085-90)<sup>44</sup>. Other

related customaries are those of Lanfranc (c. 1075), Hirsau (c. 1085) and Fruttuaria (c. 1090)<sup>45</sup>.

According to the customaries, the daily routine at Cluny was entirely dominated by liturgical services; time reserved for study or manual work was apparently reduced to the minimum. In accordance with the traditional tenets of Benedictine monasticism, the core of the monastic liturgy was the office, celebrated together by the monks at eight different "hours" of day and night, where, in strictly ordered sequence, the chanting of psalms, the singing of antiphons and responsories and the reading of excerpts from the Bible and the Fathers of the Church alternated. According to the rule of St Benedict, the office hours were: Vigils or Nocturns in the middle of the night, Lauds or Matins when light appears, Prime at sunrise, Terce in the middle of the morning, Sext at noon, None in the middle of the afternoon, Vespers at sunset, and Compline before the community retired to bed. Besides the office hours, time was reserved for obligatory private prayers and both conventual and private masses.

The liturgy at Cluny was based on the reform of Benedict of Aniane (promulgated 816-817). Benedict of Aniane, taking as his basis the monastic rule of St. Benedict, designed a fixed *cursus* for psalmody and sought to enforce monastic uniformity in different Benedictine houses (which often meant extending the authority of an abbot to several communities) both in liturgical matters and in internal organization. Strict discipline was especially valued; to this end, around-the-clock surveillance and heavy penalties were introduced. Benedict of Aniane also expanded the liturgical

ceremonies with the addition of fixed private prayers and recitation of psalms (formerly left to individual initiative); the obligatory visit to the altars three times a day; and the extension of the choral office. According to his precepts, private prayers should occupy the time between Matins and Prime; Prime should include additional readings and chants); fifteen psalms divided into three sections (*Trina Oratio*) should be said in prostration before Vigil, and possibly at two other times of the day as well; additional psalms should be recited after Compline<sup>46</sup>.

Around 870, St. Martin of Autun was reformed by 18 monks coming from St. Savin-sur-Gartempe near Poitiers, one of the few monasteries given to Benedict of Aniane which in the meanwhile had not been disturbed by war and which had kept intact its liturgical usage. Berno, founder and first abbot of Cluny (910-926), was possibly educated at Saint-Martin of Autun, before he founded the monastery of Gigny and, as its abbot, had regular observance restored at its dependency (later monastery) of Baume-les-Moines; the first monks of Cluny came from Gigny and Baume<sup>47</sup>. The connection of Cluny with Benedict of Aniane may seem therefore quite straightforward, but not everyone accepts that Berno was at Saint-Martin d'Autun, and therefore that this monastery played a role in the transmission of Aniane's legacy to Cluny: "Il n'est pas vraisemblable que Cluny aurait reçu les coutumes de Benoît d'Aniane de la manière décrite dans la Vie du moine Hugues [...] Si, dans sa préhistoire, Cluny ne se distinguait pas essentiellement du renouveau monastique général, commencé dès la seconde moitié du IXe siècle, il devient alors difficile de soutenir que Cluny aurait été une

renaissance des coutumes de Benoît d'Aniane qui ne lui auraient été transmises que par une tradition unique. Malgré la décadence monastique de cette époque, cette tradition a été plus large"<sup>48</sup>.

Historical uncertainty notwithstanding, it is clear that monasticism as reorganized by Benedict of Aniane was the foundation of Cluniac liturgical custom<sup>49</sup>. According to Guy de Valous, "l'office divin, qui suivant Saint Benoît est la chose la plus importante dans le cadre de l'existence monastique, devient avec saint Benoît d'Aniane et Cluny pour ainsi dire l'unique occupation des moines"<sup>50</sup>. One of Peter Damian's companions on his trip to Cluny in 1063 wrote that, during the longer days of summer, no part of the day there passed without the performance of the Divine Office; his testimony rings true<sup>51</sup>. The main characteristic of this expanded liturgy was the inordinate length of time given to psalmody, which took over the time intended for manual work in the rule of St. Benedict. While the rule directs the monk to sing the entire Psalter each week, at Cluny it was chanted nearly complete every day<sup>52</sup>, sometimes with insertion of antiphons after every psalm verse<sup>53</sup>. The practical fulfillment of this obligation seems, however, to have been flexible — "offices can be long without everyone's being obliged to assist at everything"<sup>54</sup>.

Cluny added a special concern with the souls of the dead (daily office of the dead, a practice which may go back to Benedict of Aniane; daily Requiem Mass on ordinary days; the feast of All Souls) and developed both veneration of Mary (e. g. the introduction of the Little Office of the Virgin) and the cult of the saints (additional and upgraded feasts)<sup>55</sup>, the result being still more time spent singing in choir. The intense concern with the souls of the dead, and recourse to

the intercession of saints, was quite in keeping with the spiritual tendencies of the tenth and eleventh centuries<sup>56</sup>. The cult of the Virgin Mary had an abstract quality akin to the new twelfth-century mentality<sup>57</sup>.

It has been also claimed that the office hours at Cluny were extremely long because the lessons were extended and during Nocturns the Bible was read in its entirety throughout a single year<sup>58</sup>. Reading the Bible in its entirety was however an old, widespread practice and the length of the lessons at Cluny was not exceptional when compared to other churches<sup>59</sup>.

So, besides the usual office hours, Cluny demanded of its monks<sup>60</sup>: before Matins, the *Trina Oratio* (lengthened to thirty psalms during Winter); at most hours, additional *preces*; at every canonical hour, four supplementary psalms (*psalmi familiares*, on behalf of the monastic "family"<sup>61</sup>), followed in Lent by two *psalmi prostrati* (recited while in prostration); at Matins and Vespers, four additional psalms; at Compline, two additional psalms and supplementary versicles; at Prime, the Athanasian Creed *Quicumque vult*, 31 additional versicles, the *Miserere* (psalm 50), psalms 69, 120, 122 and 42, seven penitential psalms, and psalms 5, 6, 114, 115, 129 and 142 for the dead<sup>62</sup>. Additional versicles were sometimes added to antiphons<sup>63</sup>. The Litanies of saints were recited at Prime and before high Mass. Twice a day, there were processions between the abbey church and the chapel of the Virgin, where the office for all saints and the offices of the dead (one in the morning, the other at night) took place. At numerous feasts, the last responsory of each nocturn was repeated.

In what concerns the Mass, the situation is markedly different: the chants were kept mostly unextended by tropes, and prayers were simplified. At Cluny there were at least two sung Masses every day: a low Mass reserved to the community, celebrated in the chapel of the Virgin, and the high Mass celebrated in the basilica. In the twelfth century, a third daily Mass was added. At the main feasts, according to the degree of solemnity, the Introit could be repeated up to three times (but no trope was ever added); the form of the Gradual could be extended by repetition; the Alleluia could be expanded by a texted or vocalized sequence, and the versicles in the Offertory and Communion multiplied. Among the chants of the Ordinary, only the *Agnus Dei* could receive tropes<sup>64</sup>. Thus, it is clear that, in David Hiley's words, "at Cluny a very moderate course was steered with regard to the extra musical solemnity afforded by sequences and tropes"<sup>65</sup>. The *Ordo Missae* of Cluny, which achieved its distinct form in the mid-eleventh century, included a short rite of entrance, a short type of Offertory very close to the Roman type, and a complex, Frankish type of Communion rite. This *Ordo Missae* was, in France, comparatively simplified and austere<sup>66</sup>.

The contrast between the prolix office and the austere Mass should be seen against the background of, on the one hand, the influence of Agobard (bishop of Lyons), possibly enhanced by the close contacts and geographical proximity between Cluny and Lyons<sup>67</sup>, and, on the other hand, the connection with Rome, referred to above (1.1). In what concerns the office, Cluny did not substantially innovate; it kept and developed the inherited monastic tradition. On the contrary, the Cluniac attitude toward the Mass

(which is the same in secular and monastic churches) is permeated both by a desire to emphasize the proximity to the Roman papal tradition, renowned for its austerity, and by an Agobard-influenced unwillingness to add extra-biblical texts to the liturgy (even most of the sequences at Cluny were sung without words).

On the problem of extra-biblical texts, Pierre-Marie Gy's remarks are worth quoting: "Dans cette première moitié du IXe s. où l'introduction de l'Office romain est un souvenir encore proche, Agobard entreprend de corriger l'antiphonaire de l'Office de son Eglise [Lyons] pour en éliminer les quelques pièces non bibliques [...] Les chants du Propre ayant un caractère fondamentalement biblique et étant perçus comme tels, si on leur joint des tropes, si l'on fait de ces textes bibliques le texte de base d'un accompagnement non biblique, on crée un contraste violemment ressenti [...] Si mon hypothèse est juste, Agobard a jeté les bases de ce qui a été à l'époque post-carolingienne une zone anti-tropes et, au moins au début, anti-hymnes"<sup>68</sup>. There are signs that in the mid-eleventh century, Cluny was still reacting against the use of tropes at Saint-Martial de Limoges<sup>69</sup>. Cluny followed Agobard in barring the way to innovation, but did not follow him in his correcting the office responsories, for this would mean to go against tradition<sup>70</sup>. Still, the responsory *De illa occulta habitatione sua*, attacked by Agobard, was dropped at Cluny, and another Christmas responsory which Agobard sought to eliminate, *Descendit*, was corrected taking into account Agobard's criticism<sup>71</sup>.

Although the above gives a fair idea of the liturgical orientation of Cluny, it must be kept in mind that liturgical usage had not the



fixity of a dogma; in fact, although its fundamental characteristics at Cluny seem to have been established early on, during the tenth and early eleventh centuries<sup>72</sup>, it underwent frequent change. Due to the scarcity of the documentation, the earlier the date, the more difficult it is for us to point out the specific ways this change took place. Some of it seems to have consisted mostly of making the choice and liturgical assignment of pieces a less flexible procedure<sup>73</sup>. This is probably related to the growing importance of books and the change in the roles of *cantor* and *armarius* (librarian) in the course of the eleventh century, with the latter taking on more and more liturgical responsibilities, including that of musical direction<sup>74</sup>. On the initiative or with the agreement of the abbot, other modifications were incorporated in the customaries or promulgated as independent statutes. Odo introduced at Cluny the feast of St Martin of Tours, and he was probably influential in giving shape to its hymn repertoire, based on models from Tours<sup>75</sup>. Maiolus made two small changes in the psalmody<sup>76</sup>. Odilo, among other innovations, abolished a procession, established the feasts of All Saints and All Souls, and added the prose *Sancti spiritus* to the Pentecost liturgy<sup>77</sup>; he may also have been behind the extension of the Matins office at Easter Sunday from three to twelve lessons<sup>78</sup>. Hugh established liturgical services on behalf of the Leonese rulers in the Iberian Peninsula, introduced the hymn *Veni, creator spiritus* at Terce at Pentecost, added antiphons at the feast of SS Peter and Paul, and, besides many other minor modifications, left the calendar enriched with 49 new feasts<sup>79</sup>. Peter the Venerable promoted a great number of small changes. He seems to have been particularly concerned with chant: besides contributing

a new office for the newly-instituted feast of Transfiguration (for which he commissioned the music), he regulated the pauses in the chanting of psalmody, suppressed the *psalmi familiares* at Vespers on twelve-lesson feasts, adopted a fourth *Benedicamus Domino* melody at the five main feasts, changed the antiphons on the first four Sundays of Lent, limited the use in the choir of added terminal antiphon melismas (the *neumae* of the *Primum querite* family of antiphons), introduced a few proper hymns, introduced the troped *Kyrie Clemens rector* at the five main feasts, extended the occasions when the *Credo* was sung, and replaced the sequence *Nota tuba* at Christmas by *Caeleste organum*.<sup>80</sup>

Change was impelled by differing motivations. In adopting the prose *Sancti spiritus*, Odilo was sensitive to the demands of Germanic monks among whom this text was popular. Given the north-western character of the melodic versions sung at Cluny<sup>81</sup>, the adoption of an Aquitanian *Kyrie* melody<sup>82</sup> and of five Aquitanian sequences<sup>83</sup> probably respected the geographic origins of other monks. Abbots Odo, Aymard, Maiol and Odilo all came from southern families<sup>84</sup>, and the southwest expansion of the Cluniac order (especially during the tenth century) provided regular contacts and personal exchanges with Aquitaine. Thus, Aquitanian features may be attributed, at least partly, to cumulative change justified by liturgical influence. In addition, Peter the Venerable sought to reduce liturgical discrepancies between Cluny and the other monasteries belonging to the congregation, by having Cluny adopt widespread usages or by stipulating that other monasteries should conform to Cluny's<sup>85</sup>; he was also specially sensitive to incongruities, which he did his best to

eliminate, and to the meaningfulness of the liturgical texts<sup>86</sup>. To interpret Peter the Venerable's statutes, one should also consider the fact that conditions for performance practice had changed significantly. The new abbey church, called "Cluny III" by archeologists, where the liturgical office took place after 1120, was over three times as big as its predecessor "Cluny II", consecrated in 981<sup>87</sup>. The community of monks had also multiplied about three times: from around one hundred monks in the second half of the tenth century to two hundred a century later and more than three hundred in the second quarter of the twelfth century<sup>88</sup>. These new conditions help us to understand why in the psalmody the pauses had to be regulated, so that everybody could arrive at the same time at the cadence, and, after a short break, start the following verse (or hemistich) together<sup>89</sup>.

While in the tenth and eleventh centuries Cluny was generally taken as a model of monastic virtues, it was not beyond criticism. Its growing wealth and the constant traveling of its abbots with their large retinue tarnished its image<sup>90</sup>. The fact that its daily routine left almost no room for manual work, required by the Rule of St. Benedict, made its customs suspect to the most ascetic minds<sup>91</sup>; its way of life became in due course associated with rituals, i. e. the mechanical fulfillment of a heavy daily routine devoid of spiritual intensity, a devotional behavior which did not leave room for intellectual participation.

It would be foolish to deny that the liturgy at Cluny was burdensome, even for medieval men, to the point of exhaustion. "Signs of dissatisfaction began to appear at Cluny [...] towards the end

of the eleventh century and more markedly in the twelfth. Bernard in his customary [...] commented on the crowding of the daily schedule, and [...] Ulrich acknowledged that for some monks the long readings were as burdensome as lead weights. In the twelfth century, Peter the Venerable clearly recognized that many monks found the multiplicity and tedium of the additions to the liturgy to be 'burdensome and hateful' [...] According to the author of the *Cluniac Riposte* to St Bernard, the Cluniacs, 'exhausted by prolonged chants and almost varicose from standing in the choir', needed a rest after Matins"<sup>92</sup>. But one should take also into account that liturgy still allowed individual intellectual endeavor. Jean Leclercq states that "lives, poems, treatises, and other spiritual writings all show that the monks did a great amount of private praying", and that the monastic horarium at Cluny "left room for private, intimate, non ritualized prayer, for reading, meditation, and cultural activities"<sup>93</sup>. More importantly, liturgy was not just an external activity, but one which engaged mind and reason. The importance of inner attention in prayer was repeatedly emphasized in monastic literature: "For the early Christians meditation was, like digestion and rumination, an activity which involved all aspects, internal and external, of the body, since a text had to be spoken or heard before it could be memorized, understood, and put into practice. This is what was intended in the rule of Benedict when it is said that in psalmody the mind should be in agreement with the voice, which provided the material for the formation of the monk's inner *persona*, his heart, mind, soul, and spirit"<sup>94</sup>. In fact, liturgy and meditation are complementary: the monk hears, reads and pronounces the word of

God, repeats the texts until he knows them by heart, meditates on them, lets himself be impregnated by them; the cult penetrates the individual meditation, and this confers spiritual density to the communal office<sup>95</sup>; as Peter the Venerable said, "the external and the internal man work in cooperation"<sup>96</sup>. Furthermore, liturgy as ceremonial ritual is not foreign to, but, on the contrary, akin to meditation also from a neuropsychological point of view: posture (the bodily counterpart of attitude) and ceremonial gesture play an important role in this approximation<sup>97</sup>. Finally, ritual has a social symbolic dimension which individual meditation alone can not provide<sup>98</sup>. To extend the divine office means, therefore, to intensify the presence of God in the life of men. Besides, Cluny promoted liturgical architectural transparency, either out of conservatism or because it had a keen sense of liturgy as a public display of devotion: in contrast with the walled choirs of other contemporary churches<sup>99</sup>, "the sculpted choir screen [of Cluny III], recently reconstructed, was a low, free-standing arcade one meter in height [...], different from the higher choir enclosures of many churches of this time. It placed the chanting choirs of monks in plain view of the surrounding audience. With this disposition, the monastic office was produced in competitive terms with the large-scale staging of the cult of relics in the pilgrimage churches"<sup>100</sup>. The liturgy was thus meant to impress the visitors, affirming in their minds the uniqueness of the monks' devotion and the effectiveness of the intercessory power of Cluny's collective prayer.

#### 1.4 MUSICAL COMPOSITION AT CLUNY

Cluny owes much of its high reputation to five of the early abbots: St. Odo (926-42), St. Maiol (abbot Aymard's executive substitute at least from 954, then abbot 964-94), St. Odilo of Mercoeur (994-1048), St. Hugh of Semur (1049-1109) and Peter the Venerable (1122-57). Only one of them (Odo) was active as a creative musician, and probably not at Cluny; another (Peter) is known to have commissioned new musical contributions. Musical creativity was at any rate subordinated to the liturgical needs of a proudly conservative community, and was therefore severely limited.

Peter the Venerable wrote five hymn texts, one responsory, a number of proses, and a special Office for the feast of the Transfiguration (6 August)<sup>101</sup>; but he entrusted the musical composition to someone else outside Cluny<sup>102</sup>. Although Pierre de Pithiviers, his prior, wrote proses honoring the Virgin<sup>103</sup>, nothing can be said about their music. Under St. Hugh, another prior, Yves, wrote the texts for two hymns, and a special office for St. Odilo was composed<sup>104</sup>. St. Odilo wrote hymns for the vigil of St. Maiol's anniversary, and for Nocturns, Lauds, and Vespers of that day<sup>105</sup>. The musical counterpart of these literary efforts is not extant, however; stock melodies may have been used. New antiphon melodies, possibly composed by William of Volpiano, were introduced at Cluny during his abbacy<sup>106</sup>. On Odilo's death, the monk Jotsaldus wrote a *planctus* for him, which survives with neumes<sup>107</sup>. Odo's musical contribution deserves separate discussion.

Odo of Cluny, who as a youth studied under Remigius of Auxerre and was afterwards a canon at Saint-Martin de Tours<sup>108</sup> (then a collegiate church<sup>109</sup>) before becoming a monk, composed twelve antiphons and three hymns for the feast of St. Martin of Tours<sup>110</sup>. The antiphons, edited by Dom Pothier in 1906, show, according to him, some licenses with respect to modal ambitus: "S. Odon a une certaine tendance à franchir, pour l'*ambitus* du morceau, les limites tracées par les pères. C'est ainsi qu'il lui arrive, par exemple, dans l'antienne *Exsequiae Martini*, de mélanger sans scrupule l'authentique et le plagal"<sup>111</sup>. Although three hymns are attributed to Odo by his biographer John of Salerno, who mentions the incipit of only one of them (*Rex Christe*), six have since been attributed to Odo: two of them, *Convivas epuli mundos* and *Lauda mater ecclesia*, are certainly not by him; the authorship of *Martini renitet* is doubtful<sup>112</sup>; *Martine, iam consul* has reached us without musical notation; only *Rex Christe*, *Martini decus* and *Martine, par apostolis*, are referred to by Cluniac chroniclers and survive with music. They are set to several melodies, of which one (Stäblein's melody 157) is common to both texts. Dom Pothier proposes that these texts are in fact the two divisions of a single, lengthy hymn<sup>113</sup>. Although melody 157 cannot be attributed with absolute certainty to Odo<sup>114</sup>, there are both circumstantial and stylistic grounds for concluding that he was the composer<sup>115</sup>. Odo's hymns, being dedicated to St Martin, were probably composed at Tours before he left the town and cannot therefore count as evidence for an early burst of musical creativity at Cluny. The antiphons were composed in 936 for Saint Martin of Tours on request from its canons when the

then abbot of Cluny, who had a personal devotion for St. Martin<sup>116</sup>, visited the town<sup>117</sup>.

## 1.5 CLUNY AND MEDIEVAL MUSICAL THOUGHT

Odo of Cluny has been much written about as presumed author of a theoretical treatise, the *Dialogus de musica*, and also of the *Prooemium Tonarii* attached to it<sup>118</sup>. As early as 1895, F. A. Gevaert contested this attribution<sup>119</sup>. Three years later, Hugo Riemann (echoed in 1950 by Dom Pierre Thomas) produced a solid argument against the Odonian authorship of the *Dialogus*<sup>120</sup>. Raffaello Monterosso came, in 1967, to its defense<sup>121</sup>, but Michel Huglo put the question to rest in 1969, disproving both attributions<sup>122</sup>.

As a practicing musician, Odo was certainly aware of the unique nature of liturgical music, and as a cultivated cleric and a former student under Remigius, he must have been conversant with medieval musical thought. According to a then-widespread intellectual tradition, "the heavens and the earth, indeed all things in them which are directed by a higher power, share in this discipline of music, for Pythagoras attests that this universe was founded by and can be governed by music"<sup>123</sup>. Music is thus seen to have a binding power which is lacking in simple speech. According to St. Ambrose, it is able both to command celestial attention and to infuse faith or implant a sacred message in the human minds; sacred music alone can seal the covenant between God and men<sup>124</sup>. For St. Augustine, the ritual actions and charitable attitude which go with



liturgical music purify the social overtones of its artistic practice<sup>125</sup>. Sound, which is the most important means of divine manifestation<sup>126</sup>, is given in chant a rational structure which, being thought of as echoing the divine ordering of the universe, can be considered spiritually significant as a pointer to a higher plane<sup>127</sup> or/and active by itself, healing the soul through its orderly motion<sup>128</sup>. All these were familiar ideas in Odo's time, and certainly influenced his thought. Although no theoretical treatise on music can be attributed to him, he defined very clearly in his *Collationes* (c. 926) the reasoning behind the Cluniac search for skilled musical performance and perfection in singing:

"True, blessed Augustine in his book of Confessions asserts that sin is incurred by him who, on hearing the divine responsories, is pleased more by modulation than by the sense of the words. Saint Jerome in his [commentary on St. Paul's] Epistle to the Ephesians also said that in the church one is not supposed to cultivate the throat and adorn the voices with sweet and even theatrical modulation, because one should sing to God not with the voice but with the heart<sup>129</sup>. On the contrary, we think that modulation is meant to human rather than divine ears: thus the use of psalmody was instituted to this end, as David playing the cithara expelled the bad spirit in Saul<sup>130</sup>. In the same way singers, through modulation, expel any diabolic desires from the heart of those in the audience"<sup>131</sup>.

Music was thus thought of at Cluny as a way of sanctification, a projection of divine spirituality into the souls of those present. This view contrasts with St. Jerome's, who attributed the healing power of psalmody to the words uttered: "let the servant of Christ sing so that he pleases, not through his voice, but through the words which he pronounces, in order that the evil spirit which was upon Saul may depart from those who are similarly troubled"<sup>132</sup>. Taking into account both the intellectual context of Odo's statement and the medieval liturgical context, a closed acoustical space which engages both the producer of a sound and the others which hear it, Odo's view can be interpreted as presupposing that melody, which stretches and amplifies the divine words, continually reverberates in the mind, and that being (numerically) ordered, it presumably induces a corresponding condition in the hearer, who is thus led by sympathy to abandon disjointed motions in favor of orderly ones<sup>133</sup>.

When Odo speaks of music, he refers not only to musically developed responsories, but also to simple psalmody, the nucleus of the divine office. For St. Ambrose, the singing of psalms was regarded as especially sweet, having been instituted by David as a kind of celestial conversation whereby God is not only praised but reconciled as well; it is an edifying and socializing activity, for it congregates people, elates them and promotes a righteous attitude<sup>134</sup>. To the nine angelic choirs, whose reality was not in doubt among the Cluniacs<sup>135</sup>, psalmody added a tenth choir, the choir of repented mankind<sup>136</sup>. The fact that Odo and other medieval authors firmly believed in the sanctifying power of liturgical music cannot be

separated from the contemplative, methodical attitude which was supposed to characterize its performance.

The notion of a community between angelic and human worship, the latter being the shadow or imitation of the former, has biblical roots<sup>137</sup> and was widespread in the Middle Ages, for instance in the *Vita Odonis* by John of Salerno<sup>138</sup>, the musical writings of Aurelian of Rêome<sup>139</sup> or in the new liturgical texts of sequences and tropes<sup>140</sup>. It was believed in monastic circles that at the altar the angels are standing<sup>141</sup>. For St. Basil, "a psalm is the work of angels, a heavenly institution"<sup>142</sup>. St. Benedict, paraphrasing Psalm 137:1 ([...] *in conspectu angelorum psallam tibi*, "before the eyes of the angels I will sing to you"), reminds the monk that during the celebration of the Divine Office he is in presence of God and his angels<sup>143</sup>. No wonder, then, that the anonymous author of the *Vita Hugonis* said that the new basilica of Cluny, in all its splendor, could be called a *deambulatorium angelorum*<sup>144</sup>, the place where sky and earth meet, where men and angels walk, where monks echo the heavenly choir of angels in their continual praise of God; or, in Aelred of Rievaulx's words, "where the heavens are opened and angels attend, where earthly things are joined to heavenly, and where human beings keep company with angels"<sup>145</sup>.

Thus, in the ideal microcosm of the church, the harmonic unity of the universe is made transparent for human ears by way of consonant voices attuned to sanctified lives reverberating in a large proportioned space<sup>146</sup>. This attitude is in line with the threefold Boethian concept of music (*musica instrumentalis*, *musica humana*, *musica mundana*), which, according to Charles Scillia, is the

background for the design of the figurative capitals in the choir of Cluny III, probably sculpted in the early 1090s<sup>147</sup>.

Of these eight Cluny hemicycle capitals, only two (numbers 7 and 8 in Conant's book) represent the *musica instrumentalis*: together, they illustrate the eight Gregorian modes. Each of the four faces in each capital has an inscription and a sculpted figure; only five figures, however, are extant, and even these tend to be badly damaged; they present lay people holding instruments whose identity is often problematic<sup>148</sup>.

The inscriptions take the numbers of the modes as a pretext for statements of religious or general significance. Thus, the first mode reads *Hic tonus orditur modulamina musica primus*, "This first tone gives order to the musical harmonies", a commentary which should be understood in the light of the antique-medieval concept of the One fathering numbers<sup>149</sup>. The second mode has *Subsequor ptongus numero vel lege secundus*, "[next] comes a sound which is second in number or [rather] in law"; a woman is figured in the capital, serving as metaphor for the musical meaning (the woman depends on man, as the plagal mode depends on the authentic)<sup>150</sup>. The inscription for the third mode reads *Tertius impingit Christumque resurgere pingit*, "The third thrusts and paints Christ's resurrection", referring to the day of the resurrection (the third day after the crucifixion)<sup>151</sup>. The figure seems to have a musical<sup>152</sup>, a symbolic<sup>153</sup>, or a symbolic musical meaning linked to the inscription<sup>154</sup>. The fourth mode reads *Succedit quartus simulans in carmine planctus*, "afterwards comes the fourth, which in its songs imitates wailing", an inscription referring to one of Christ's miracles, the resurrection of Lazarus on

the fourth day, after deep lamentation of his friends and relatives. The figure carries a carillon, which may have funerary associations<sup>155</sup>. The fifth mode *titulus* has *Ostendit quintus quem sit quisquis tumet imus* ("the fifth shows how low is fallen he who exalts himself"), which develops a moral idea repeatedly found in the Bible in the light of the parable of the five foolish and the five prudent virgins, also referred to in the antiphon *Quinque prudentes* (normally associated with this mode in the tonaries, as are respectively the other antiphons of the *Primum quaerite* group quoted below)<sup>156</sup>. The inscription for sixth mode reads *Si cupis affectum pietatis respice sextum* ("If the affect of piety is sought, look for the sixth"), sixth being the sixth hour, when Jesus sat at the well, in the evangelical story quoted in the tonary antiphon *Sexta hora sedit*<sup>157</sup>. The *titulus* for the seventh mode is *Insinuat flatum cum donis septimum alium* ("[the seventh] introduces the divine breath with its seven gifts"), referring to the seven gifts of the Holy Spirit<sup>158</sup>. Finally, the motto for the eighth mode is *Octavus sanctos omnes docet esse beatos* ("the eight teaches that all saints are blissful"), which refers to the eight beatitudes, as does the tonary antiphon *Octo sunt beatitudines*<sup>159</sup>. The inscriptions of the Cluny capitals can therefore be said to show awareness of basic musical theory and of the *Primum quaerite* antiphons in the tonaries, but their significance is mostly symbolic and spiritual.

Music theory was in any case not unknown at Cluny, as is shown by its late eleventh-century Gradual, Paris B.N. lat 1087 and especially by the contents of the Cluny library at about the same time, as revealed by its catalogue<sup>160</sup>. In Paris B.N. lat 1087, an

addition on fols. 115v/116r, entered shortly after the copying of the main contents, is especially interesting not only in that it reveals that Aquitanian notation was known around 1100 to some monks at Cluny, but also as a witness to the penetration there, for didactic purposes, of a few theoretical concepts. The hymn text for the little Office of the Virgin Mary, starting with *Beata dei genitrix* (edited by Guido Maria Dreves in *Analecta Hymnica*)<sup>161</sup> is here set not to the melody published by Stäblein<sup>162</sup>, but to three different melodies: one for the strophes sung at Prime and Terce, another for Sext and None, the third for Vespers and Compline. Each melody is given twice (complete in one line, and then again below); the repetition of the first melody is not exact. The notation is Aquitanian over a dry-point line, using once a double letter-clef, and diastematic, but sometimes only approximately so, which makes transcription a risky task. In the left margin, we read *mixolidius. subpositive* (beside the first melody, above); *dorius. intendive* (beside the second, above); *hic mixolidius. remissive* (beside the third, above). The qualifications *intendive* and *remissive* correspond to the melodic direction (ascending or descending, by leap) of the initial interval (ascending fifth, descending third); the first melody starts with an ascending second. In the right margin, we read, written by a different hand, *hoc mixohiduo* (first melody, below); *ambo unisone* (second melody, above and below); *haud dissimiles* (third melody, above). Beside the first and third melodies, above, we see also letters defining the descending pentachord E - D - A (a **t**, for *tonus*, is written between **e** and **d**); beside the second melody (which spans the octave D-D), we

see, vertically disposed, the five letters corresponding to the descending pentachord A-D above the final.

The eleventh-century catalogue of the Cluny library includes musical treatises by Boethius, Martianus Capella, Aurelian of Rêome, Remigius of Auxerre, and Guido, together with non-ascribed treatises, Calcidius' commentary on Plato's *Timeus*, St. Augustin's *De Musica* and a book containing *rationes et definitiones VIII tonorum*<sup>163</sup>. Interest in musical theory is confirmed by the fact that Peter Damian sent his nephew to Cluny for him to learn the seven liberal arts (among them, music)<sup>164</sup>. Cluny seems, however, to have abhorred *ecclesiasticae cantilenae modulis*, presumably the musical novelties of the day, since Peter Damian's nephew, to the distress of his uncle, chose to go to another monastery to learn them<sup>165</sup>. Other hints of musical conservatism are provided by the contents of the Cluny Gradual and, indirectly, by the musical criticism leveled at the "Clunisiens" at large by the Cistercians in the mid-twelfth century<sup>166</sup>. The small role theory was allowed to play in the liturgical repertoire at Cluny will be discussed in chapter three.

<sup>1</sup>General Bibliography: Kassius Hallinger, "Cluny", *Enciclopedia Cattolica*, III, Vaticano, 1949, cols. 1883-93. Guy de Valous, "Cluny (Abbaye et Ordre de)", *Dictionnaire d'Histoire et de Géographie ecclésiastiques*, XIII, Paris, 1956, cols. 35-174. Id., *Le monachisme clunisien des origines au XV<sup>e</sup> siècle*, 2<sup>ème</sup> édition augmentée, 2 vols., Paris: Picard, 1970. Marcel Pacaut, *L'ordre de Cluny (909-1789)*, Paris: Fayard, 1986. Glauco Maria Cantarella, *I monaci di Cluny*, Torino: Einaudi, 1993. On the foundation of Cluny, see also Christian Bonnet and Christine Descatoire, *Les Carolingiens et l'Église, VIII<sup>e</sup> - X<sup>e</sup> siècle*, Paris: Ophrys, 1996, 151-59. On the dissolution of the congregation, the most informative study is still that of Dom Paul Denis, "Quelques notes sur les derniers moines de l'abbaye de Cluny", *Annales de l'Académie de Mâcon*, 3<sup>e</sup> série, XV/ii (1910) [Millénaire de Cluny. Congrès d'Histoire et d'Archéologie tenu à Cluny les 10, 11, 12 Septembre 1910, vol. II], 114-46.

<sup>2</sup>Constance B. Bouchard, "Merovingian, Carolingian and Cluniac Monasticism: Reform and Renewal in Burgundy", *Journal of Ecclesiastical History*, 41 (1990), 365-88 [371-72].

<sup>3</sup>Kassius Hallinger, *Gorze - Kluny. Studien zu den monastischen Lebensformen*

und Gegensätzen im Hochmittelalter, 2 vols [Studia Anselmiana 22-25], Rome: Herder, 1950-1951.

<sup>4</sup>Chrysogonus Waddell, "The Pre-Cistercian Background of Cîteaux and the Cistercian Liturgy", *Goad and Nail - Studies in Medieval Cistercian History*, X, ed. E. Rozanne Elder, Kalamazoo, Mich.: Cistercian Publications, 1985, 109-32 [119].

<sup>5</sup>Herbert E. J. Cowdrey, *The Cluniacs and the Gregorian Reform*, Oxford: Clarendon Press, 1970.

<sup>6</sup>Gerd Tellenbach, *The Church in Western Europe from the Tenth to the Early Twelfth Century*, Cambridge: Cambridge University Press, 1993, 117-18, 342-44.

<sup>7</sup>G. de Valous, "Cluny", cols. 37-39.

<sup>8</sup>D. Ursmer Berlière, *L'ordre monastique des origines au XIIe siècle*, 3rd ed., Maredsous: Abbaye, 1924, 243.

<sup>9</sup>Clifford H. Lawrence, *Medieval Monasticism. Forms of Religious Life in Western Europe in the Middle Ages*, 2nd ed., London: Longman, 1989, 93-94.

<sup>10</sup>Gerhart B. Ladner, "Two Gregorian Letters: On the Sources and Nature of Gregory VII's Reform Ideology", *Studi Gregoriani*, V (1956), 221-42.

<sup>11</sup>Barbara H. Rosewein, *To Be the Neighbor of Saint Peter: The Social Meaning of Cluny's Property, 909-1049*, Ithaca, N. Y.: Cornell University Press, 1989, 202-7.

<sup>12</sup>Philibert Schmitz, "La liturgie de Cluny", *Convegni del Centro di studi sulla spiritualità medievale, II. Spiritualità cluniacense. 12-15 ottobre 1958*, Todi: Accademia Tudertina, 1960, 83-99 [86-87].

<sup>13</sup>Higinio Anglés, *Historia de la música medieval en Navarra*, Pamplona: Diputación Foral de Navarra, 1970, 69.

<sup>14</sup>Michel Huglo, "Cluniac monks", *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie, London: Macmillan, 1980, vol. 4, 502-4. On the Cluniac musical sources, see Chapter 2.

<sup>15</sup>Ruth Steiner, "The Music for a Cluny Office of Saint Benedict", *Monasticism and the Arts*, ed. Timothy G. Verdon, Syracuse (N.Y.): Syracuse University Press, 1984, 81-113. Id., "Reconstructing the Repertory of Invitatory Tones and Their Uses at Cluny in the Late 11th Century", *Musicologie médiévale — notations et séquences*, ed. Michel Huglo, Paris, 1987, 175-82. Id., "Introduction", *An Aquitanian Antiphoner: Toledo, Biblioteca capitular, 44.2. A CANTUS Index*. Ottawa: The Institute of Mediaeval Music, 1992, vii-xxi [vii-xiv]. Id., "Marian Antiphons at Cluny and Lewes", *Music in the Medieval English Liturgy*, ed. Susan Rankin and David Hiley, Oxford: Clarendon Press, 1993, 175-204. David Hiley, "Cluny, sequences and tropes", *La tradizione dei tropi liturgici*, ed. Claudio Leonardi and Enrico Menesto, Spoleto: Centro Italiano di Studi sull'Alto Medioevo, 1990, 125-38. Id., "The Sequence Melodies sung at Cluny and elsewhere", *De Musica et Cantu: Studien zur Geschichte der Kirchenmusik und der Oper. Helmut Huckle zum 60. Geburtstag*, Hildesheim: Georg Olms, 1993, 131-55. Id., *Western Plainchant. A Handbook*, Oxford: Clarendon Press, 1993, 574-78.

<sup>16</sup>D. Hiley, *Western Plainchant*, 575.

<sup>17</sup>Manuel Pedro Ferreira, "The Cluny Gradual: Its Notation and Melodic Character", *Cantus Planus - Papers Read at the 6th Meeting (Eger, Hungary, 1993)*, ed. László Dobszay, Budapest: Hungarian Academy of Sciences/Institute for Musicology, 1995, I, 205-15.

<sup>18</sup>Jacques Dubois, *Histoire monastique en France au XIIe siècle*, London: Variorum Reprints, 1982, Ch. II: "Les moines dans la société du Moyen Âge (950-1350)", 8-9, 17-18.

<sup>19</sup>G. Tellenbach, *The Church in Western Europe*, 112.



- <sup>20</sup>Jacques Hourlier, "Cluny et la notion d'ordre religieux", *A Cluny. Congrès scientifique en l'honneur des saints abbés Odon et Odilon*, Dijon: Société des Amis de Cluny, 1950, 219-26. Adriaan H. Bredero, *Cluny et Cîteaux au douzième siècle. L'Histoire d'une controverse monastique*. Amsterdam: APA - Holland University Press, 1985, ch. VI: "Comment les institutions de l'ordre de Cluny se sont rapprochées de Cîteaux", 143-84. C. Bouchard, "Merovingian", 375-81. Dom G. Charvin (ed.), *Statuts, Chapitres Généraux et Visites de l'Ordre de Cluny*, I, Paris: Boccard, 1965.
- <sup>21</sup>A. H. Bredero, *Cluny et Cîteaux*, 151.
- <sup>22</sup>Noreen Hunt, *Cluny under Saint Hugh, 1049-1109*, Notre Dame, Indiana: University of Notre Dame Press, 1968, 184.
- <sup>23</sup>Marie-Claude Lapeyre, *Atlas des monastères de l'ordre de Cluny au moyen âge*, Paris, 1977. Philippe Racinet, *Les maisons de l'ordre de Cluny au moyen âge — Évolution et permanence d'un ancien ordre bénédictin au nord de Paris*, Bruxelles: Nauwelaerts, 1990, vii-x.
- <sup>24</sup>N. Hunt, *Cluny under Saint Hugh*, 184.
- <sup>25</sup>Dom Laurent Henri Cottineau, *Répertoire topo-bibliographique des abbayes et prieurés*, 3 vols., Mâcon, 1939 (I, II), 1970 (III).
- <sup>26</sup>"Incorporation" here includes "acquisition", "transfer" and "donation", which were not unambiguous contractual relations in the tenth and eleventh centuries: cf. B. Rosewein, *To Be the Neighbor of Saint Peter*, 144-47.
- <sup>27</sup>Conrad Rudolph, *The «Things of Greater Importance». Bernard of Clairvaux's Apologia and the Medieval Attitude Toward Art*, Philadelphia: University of Pennsylvania Press, 1990, 166.
- <sup>28</sup>*Id.*, 161-62.
- <sup>29</sup>Michel Huglo, "Réglement du XIII<sup>e</sup> siècle pour la transcription des livres notés", in Martin Ruhnke (ed.), *Festschrift Bruno Stäblein zum 70. Geburtstag*, Kassel, 1967, 121-33 [121].
- <sup>30</sup>M. Huglo, "Cluniac monks", 503.
- <sup>31</sup>D. Hiley, *Western Plainchant*, 578.
- <sup>32</sup>Raymond Étaix, "Le lectionnaire de l'office de Cluny", *Recherches augustiniennes*, XI (1976), 91-153.
- <sup>33</sup>Paul Tirot, "Un «Ordo Missae» monastique: Cluny, Cîteaux, La Chartreuse", *Ephemerides Liturgicae*, XCV (1981), 44-120, 220-251 [76-77].
- <sup>34</sup>Jean Leclercq, "Prayer at Cluny", in *Journal of the American Academy of Religion*, li/4 (1983), 651-65 [656].
- <sup>35</sup>G. de Valous, *Le monachisme*, I, 338, 356.
- <sup>36</sup>John of Salerno, *Vita Odonis*, in J.-P. Migne (ed.), *Patrologiae cursus completus, series latina* (hereafter PL), vol. 133, Paris, 1881, cols. 43-86 [57, 66-67]; Udalricus Cluniacensis Monachus, *Antiquiores Consuetudines Cluniacensis Monasterii*, II/iii, J.-P. Migne, PL, vol. 149, Paris, 1882, cols. 636-778 [703A].
- <sup>37</sup>P. Schmitz, "La liturgie de Cluny".
- <sup>38</sup>Editions: *Consuetudines monasticae*, ed. Bruno Albers, 5 vols. (I, Stuttgart-Vienna, 1900; II-V, Monte Cassino, 1905-12). *Corpus consuetudinum monasticarum* [hereafter CCM], gen. ed. Kassius Hallinger, vols. I (Siegburg, 1963), VI (1975), VII/1-4 (1983-1986), VIII (1974), IX (1976), X (1980), XI/1-2 (1985-1987), XII/1-2 (1985-1987). G. Charvin, *Statuts*.
- <sup>39</sup>Giles Constable, *Cluniac Studies*, London: Variorum Reprints, 1980, Chapter I ("Monastic Legislation at Cluny in the Eleventh and Twelfth Centuries"), 152.
- <sup>40</sup>P. Schmitz, "La liturgie de Cluny", 87.
- <sup>41</sup>D. Hiley, "Cluny, Sequences and Tropes", 137.
- <sup>42</sup>Editions: B. Albers, *Consuetudines*, II, 1-28, and K. Hallinger, CCM VII/2.

<sup>43</sup>Edition: *Liber tramitis aevi Odilonis abbatis*, ed. Peter Dinter, CCM X.

<sup>44</sup>Editions: *Udalrici Consuetudines Cluniacenses*, ed. J. P. Migne, PL 149, Paris, 1882, cols. 635-778. *Bernardi Ordo Cluniacensis*, ed. Marquard Herrgott, *Vetus disciplina monastica*, Paris, 1726, 133-364.

<sup>45</sup>P. Tirot, "Un «Ordo Missae» monastique", 50-54. One could add the customary from St. Bénigne de Dijon (also from the late eleventh century, although its extant text dates from the thirteenth century).

<sup>46</sup>Philibert Schmitz, "L'influence de Saint Benoît d'Aniane dans l'histoire de l'ordre de Saint-Benoît", *Settimane di studio del Centro Italiano di studi sull'alto Medioevo*, IV. *Il monachesimo nell'alto Medioevo e la formazione della civiltà occidentale*, 8-14 aprile 1956, Spoleto: Centro Italiano di studi sull'alto Medioevo, 1957, 401-15. Réginald Grégoire, "Benedetto di Aniane nella riforma monastica carolingia", *Studi Medievali*, XXVI (1985), 573-610 [596-97]. Cinzia Bonetti, "La regola di Benedetto di Aniane e l'unità dei monasteri europei sotto la regola di San Benedetto da Norcia", *Benedetto di Aniane. Vita e riforma monastica*, ed. Giancarlo Andenna and Cinzia Bonetti, Milano: Edizioni Paoline, 1993, 29-58 [38, 42-49].

<sup>47</sup>P. Tirot, "Un «Ordo Missae» monastique", 221-22. A. H. Bredero, *Cluny et Cîteaux*, ch. I: "Cluny et le monachisme carolingien: continuité et discontinuité", 1-26 [4-14].

<sup>48</sup>A. H. Bredero, *Cluny et Cîteaux*, 9, 13. Bredero's position is indirectly substantiated by Réginald Grégoire, who demonstrates the vitality of carolingian monasticism during the ninth century in his article, "Il monachesimo carolingio dopo Benedetto d'Aniane (†821)", *Studia Monastica*, 24 (1982), 349-88.

<sup>49</sup>P. Schmitz, "La liturgie", 86, 91.

<sup>50</sup>G. de Valous, *Le monachisme clunisien*, 328.

<sup>51</sup>Irven M. Resnick, "Peter Damian on Cluny, Liturgy, and Penance", *Studia Liturgica*, 18 (1988), 170-87 [172-73].

<sup>52</sup>In the second quarter of the tenth century, more than 138 psalms were sung or recited every day (John of Salerno, *Vita*, 57); in the late eleventh century, according to Schmitz's calculations, the number had increased to 215 (P. Schmitz, "La liturgie", 89).

<sup>53</sup>Joseph Dyer, "The Singing of Psalms in the Early-Medieval Office", *Speculum*, 64 (1989), 535-78 [540].

<sup>54</sup>J. Leclercq, "Prayer at Cluny", 654. See also J. Dubois, *Histoire monastique*, Ch. II, 31, and V, 74.

<sup>55</sup>P. Schmitz, "La liturgie", 91-93. G. de Valous, *Le monachisme*, I, 333, 336, 349, 358-65. Dom Patrice Cousin, "La dévotion mariale chez les grands abbés de Cluny", *A Cluny. Congrès scientifique en l'honneur des saints abbés Odon et Odilon*, Dijon: Société des Amis de Cluny, 1950, 210-18.

<sup>56</sup>G. Tellenbach, *The church in Western Europe*, 94-101.

<sup>57</sup>Peter Brown, *Society and the Holy in Late Antiquity*, Berkeley: University of California Press, 1982, 302-32 [329-31].

<sup>58</sup>G. de Valous, *Le monachisme*, I, 333-34. Robert Folz, "Pierre le Vénérable et la liturgie", in *Pierre Abélard - Pierre le Vénérable*, Paris: C.N.R.S., 1975, 143-63 [149].

<sup>59</sup>Pierre-Marie Gy, "La Bible dans la liturgie au Moyen Age", in Pierre Riché and Guy Lobrichon (eds.), *Le Moyen Age et la Bible*, Paris: Beauchesne, 1984, 537-552 [550-51]. R. Étaix, "Le lectionnaire", 93: "Les historiens insistent souvent sur la longueur démesurée des lectures dans l'office clunisien. L'étude du lectionnaire ne permet pas de ratifier un pareil jugement; son volume n'est

pas plus important que celui des autres églises et l'augmentation du nombre des fêtes à douze leçons est compensée en partie par l'abrégement de celles-ci".

<sup>60</sup>The following is based on P. Schmitz, "la liturgie", 87-90, 95; G. de Valous, *Le monachisme*, 334-336, and R. Folz, "Pierre le Vénérable", 148-49.

<sup>61</sup>The monastic "family" was composed of the members of the different groups in the community (clerical or lay people), patrons, friends, and members of other monasteries having spiritual ties with Cluny.

<sup>62</sup>Psalm numbers are cited according to the Latin Vulgate throughout.

<sup>63</sup>Feasts for St. Paul and St. Lawrence. This practice is not particular to Cluny, and seems to go back to Carolingian times: cf. Bonifacio Baroffio, "I versetti antifonici nei libri gregoriani: una particolare forma di tropo?", *Musica e Storia*, 1 (1993), Venezia: Fondazione Ugo e Olga Levi, 1993, 285-302.

<sup>64</sup>P. Schmitz, "La liturgie", 95-97. G. de Valous, *Le monachisme*, I, ix-x, 338-57. R. Folz, "Pierre la Vénérable", 153. D. Hiley, "Cluny, Sequences and Tropes", 131. On the Alleluias, see also Michel Huglo, "Gallican rite, music of the", *The New Grove*, vol. 7, 113-25 [116].

<sup>65</sup>D. Hiley, "Cluny, Sequences and Tropes", 138.

<sup>66</sup>P. Tirot, "Un «Ordo Missae» monastique".

<sup>67</sup>The Cluny library owned works by Agobard (see the catalogue published by Léopold Delisle, *Inventaire des manuscrits de la Bibliothèque Nationale: Fonds de Cluni*, Paris: H. Champion, 1884, Appendix, 337-73, nrs. 180, 273). On the close connection between Cluny and the bishops of Lyon, see Dom Denys Buennier, *L'ancienne liturgie romaine — le rite lyonnais*, Lyon-Paris, 1934, repr. Farnborough: Gregg I.P., 1969, 73-76.

<sup>68</sup>Pierre-Marie Gy, "Les tropes dans l'histoire de la liturgie et de la théologie", *Research on Tropes*, ed. Gunilla Iversen, Stockholm: Almqvist & Wiksell, 1983, 7-16 [8-9].

<sup>69</sup>P.-M. Gy, "Les tropes", 10.

<sup>70</sup>Pierre-Marie Gy, "Cluny dans la géographie de l'office divin", paper presented to the 1994 Colloquium, Millénaire de S. Mayeul (forthcoming).

<sup>71</sup>Michel Huglo, "Les remaniements de l'antiphonaire grégorien au IX<sup>e</sup> siècle: Hélishachar, Agobard, Amalaire", *Culto Cristiano e Politica Imperiale Carolingia* [Atti del XVIII Convegno di Studi], Todi: Academia Tudertina, 1979, 89-120; id., *Les livres de chant liturgique*, Turnhout: Brepols, 1988, 89. The Mass introit for the Sunday after Epiphany *In excelso throno* was also replaced at Lyons and Cluny by the introit *Venite adoremus*; this replacement is however found in a number of other monastic or secular churches belonging as a rule to dioceses in the periphery of Lyons.

<sup>72</sup>P.-M. Gy, "Cluny dans la géographie": "le tissu fondamental de l'office clunisien a été constitué de bonne heure, peut-être même dès la période des origines". According to P. Tirot, "Un «Ordo Missae» monastique", the *Ordo Missae* is, on the contrary, a creation of Cluny.

<sup>73</sup>Cf. R. Steiner, "Marian Antiphons".

<sup>74</sup>Margot E. Fassler, "The Office of the Cantor in Early Western Monastic Rules and Customaries: A Preliminary Investigation", *Early Music History*, 5 (1985), 29-51.

<sup>75</sup>The relation between Cluny and Tours in what concerns the hymnal was demonstrated by Marie-Hélène Jullien in her unpublished doctoral thesis *La tradition textuelle des hymnes d'Ambroise*, cit. by Pierre-Marie Gy, "Géographie des tropes dans la géographie liturgique du moyen âge carolingien et postcarolingien", *La tradizione dei tropi liturgici*, ed. Claudio Leonardi and Enrico Menesto, Spoleto: Centro Italiano di Studi sull'Alto

Medioevo, 1990, 13-24 [19-20]. On the liturgical relationship between Cluny and Tours, see also Jean Vezin, "Un martyrologe copié à Cluny à la fin de l'abbatit de saint Hughes", *Hommages à André Boutemy*, ed. Guy Cambier, Bruxelles, 1976, 404-12 [409-10] and Manuel Pedro Ferreira, "As Origens do Gradual de Braga", *Didaskalia*, XXV (1995), 57-96 [91-92, 95] (on the transmission of the Alleluia *Hic martinus pauper*). Dom Jacques Hourlier, "Remarques sur la notation clunisienne", *Revue Grégorienne*, XXX (1951), 231-40, locates in Tours the origins of the musical notation practiced at Cluny; but see our comments in chapter 2.

<sup>76</sup>G. Constable, *Cluniac Studies*, Ch. I ("Monastic Legislation..."), 155. Udalricus, *Antiquiores consuetudines*, in J.-P. Migne, PL 149, Paris, 1882, 648A, 686D.

<sup>77</sup>Dom Jacques Hourlier, *Saint Odilon, abbé de Cluny*, Louvain: Publications Universitaires de Louvain, 1964, 102. G. Constable, *Cluniac Studies*, Chapter I ("Monastic Legislation..."), 154-55.

<sup>78</sup>Michel Huglo, "L'Office du dimanche de Pâques dans les monastères bénédictins", *Revue Grégorienne*, 30 (1951), 191-203. Although Huglo puts this change back to the late tenth century, his dating is probably based on the belief that the *Consuetudines antiquiores* represent liturgy at the time of St. Maiolus (Dom Ursmer Berlière, "Les coutumiers monastiques", *Revue Bénédictine*, XXIII (1906), 261-67 [264]) if not before (Bruno Albers, "Le plus ancien coutumier de Cluny", *Revue Bénédictine*, XX (1903), 174-84 [184]). Recent scholarship tends to date the oldest Cluny customary from the early eleventh century. Given the date of the Berlin breviary discussed by Huglo, the change took place, at any rate, before the second quarter of the century.

<sup>79</sup>Charles Julian Bishko, "Liturgical Intercession at Cluny for the King-Emperors of Leon", *Studia Monastica*, 3 (1961), 53-76. G. Charvin (ed.), *Statuts*, 16-17. G. de Valous, *Le monachisme clunisien*, I, 363. G. Constable, *Cluniac Studies*, Chapter I ("Monastic Legislation..."), 155-56. Armin Kohnle, *Abt Hugo von Cluny (1049-1109)*, Sigmaringen: Jan Thorbecke Verlag, 1993, 44-47.

<sup>80</sup>G. Charvin (ed.), *Statuts*, 20-40. G. Constable, *Cluniac Studies*, Ch. III ("The Monastic Policy..."), 129-30. R. Folz, "Pierre le Vénérable", 155-60. Michel Huglo: "Les débuts de la polyphonie à Paris: les premiers organa parisiens". *Forum musicologicum — Basler Beiträge zur Musikgeschichte*, 3, Winterthur: Amadeus Verlag, 1982, 93-163 [118].

<sup>81</sup>Illustrated by the Ordinary chants in the Gradual of Cluny, MS Paris, B.N. 1087, listed in David Hiley, "Ordinary of Mass Chants in English, North French and Sicilian Manuscripts", *Journal of the Plainsong & Mediaeval Music Society*, 9 (1986), 1-128 [44]. D. Hiley, "Cluny, sequences and tropes", 130, remarks that "at Cluny we can see eight sequence texts of patently French origin being sung". Confirmation of Cluny's north-western orientation is afforded by melodic variants, referred to below (chapter 3). It seems therefore that the role of Guillaume, Duke of Aquitaine and Count of the Auvergne, in the foundation of Cluny did not imply the adoption of an Aquitanian liturgical matrix.

<sup>82</sup>This is borne out by comparison of the *Kyries* in Paris, B.N. 1087 with Margareta Melnicki's *Das Einstimmige Kyrie des Lateinischen Mittelalters* (Diss., Friedrich-Alexander-Universität zu Erlangen, 1954), Regensburg: Institut für Musikforschung, 1955, 115: *Kyrie* 185. Pierre-Marie Gy ("Les tropes", 16, n.5) remarks that in the Cluny Gradual "les séquences sont précédées de 9 mélodies du Kyrie, dont 5 portent comme titre l'incipit du trope correspondant, [...] aquitain: la seule explication possible est qu'à cette époque Cluny a reçu d'Aquitaine les mélodies, tout en refusant l'usage des tropes".

<sup>83</sup>D. Hiley, "Cluny, Sequences and Tropes", 127, completed and corrected on the basis of id., "The Sequence Melodies sung at Cluny".

<sup>84</sup>G. de Valous, "Cluny", 37, 42.

<sup>85</sup>G. Charvin (ed.), *Statuts*, 23, 34-35, 39 (statutes 5, 57, 74).

<sup>86</sup>Giles Constable, "The Concern for Sincerity and Understanding in Liturgical Prayer, Especially in the Twelfth Century", *Classica et Mediaevalia: Studies in Honor of Joseph Szövérfy*, Washington: Classical Folia, 1986, 17-30 [21].

<sup>87</sup>Kenneth J. Conant, *Cluny. Les églises et la maison du chef d'ordre*, Cambridge (Mass) - Mâcon: Mediaeval Academy of America, 1968. Neil Stratford, "Les bâtiments de l'abbaye de Cluny à l'époque médiévale. État des questions", *Bulletin Monumental*, 150-IV (1992), 383-411.

<sup>88</sup>N. Stratford, "Les bâtiments", 410. See also J. Dubois, *Histoire monastique*, ch. IV: "Du nombre des moines dans les monastères", 25-26.

<sup>89</sup>G. Charvin (ed.), *Statuts*, 22: "Statutum est, ut omnes versus regularium horarum, exceptis hymnis, sub una et mediocri repausatione decantentur, ita ut universorum voces simul cesuram versus finiant, et post mediocrem, ut dixit, repausationem, simul quoque aliam incipiant [...]" (statute 1).

<sup>90</sup>Jean Leclercq, "The Monastic Crisis of the Eleventh and Twelfth Centuries", *Cluniac Monasticism in the Central Middle Ages*, ed. Noreen Hunt, London, 1971, 217-37.

<sup>91</sup>Jean Leclercq, "Diversification et identité dans le monachisme au XIIe siècle", *Studia Monastica*, 28 (1986), 51-74.

<sup>92</sup>G. Constable, *Cluniac Studies*, Ch. III ("The Monastic Policy..."), 128. See also P. Schmitz, "La liturgie", 98-99.

<sup>93</sup>J. Leclercq, "Prayer at Cluny", 654, 658.

<sup>94</sup>G. Constable, "The Concern for Sincerity", 20.

<sup>95</sup>Jean Leclercq, "Culte liturgique et prière intime dans le monachisme au Moyen Age", *La Maison-Dieu*, 69 (1962), 39-55, cit. by R. Folz, "Pierre le Vénérable", 150-51.

<sup>96</sup>Giles Constable, *The Letters of Peter the Venerable*, 2 vols., Cambridge (Mass.), 1967, I, letter 13, pp. 18-21 [21]: "Debet is labor ualde tibi esse iocundus, nec a tam fructuoso opere aliquatenus corpus cessare, ut dum mens diuina meditando, manus scribendo, oculi legendo, lingua loquendo, totus homo interior atque exterior cooperando laborat, holocaustum medullatum deo offeras, ut qui te totum saeculo subduxisti, integrum te sacrificium deo impendas".

<sup>97</sup>According to Eugene d'Aquili, kneeling, a prostration, a slow bow, or any action which by its form or meaning draws attention to itself as different from ordinary actions, produces sustained attention and orienting reactions accompanied by awe; ceremonial ritual, just as meditation, may imply mild to intense trance states, providing the ordinary person access to mystical experience. Cf. Eugene G. d'Aquili and Andrew B. Newberg, "Liminality, Trance, and Unitary States in Ritual and Meditation", *Studia Liturgica* 23 (1993), 2-34.

<sup>98</sup>The act of performing repeatedly a liturgical order socially establishes beyond question the sacred postulates it expresses. While transmitting the world view encoded in the liturgy, the participants affirm to themselves and to the others its acceptance and, through their actions, vest it with whatever authority it claims: Roy A. Rappaport, "Veracity, Verity, and *Verum in Liturgy*", *Studia Liturgica* 23 (1993), 35-50.

<sup>99</sup>Louis Bouyer, *Architecture et liturgie*, Paris: Les Éditions du Cerf, 1967, 61-62.

<sup>100</sup>O. K. Werckmeister, "Cluny III and the Pilgrimage to Santiago de Compostela",

*Gesta*, XXVII (1988), 103-12 [110].

<sup>101</sup>André Wilmart, "Le poème apologétique de Pierre le Vénérable et les poèmes connexes", *Revue Bénédictine*, LI (1939), 53-69. Josef Szövérfy, *Die Annalen der lateinischen Hymnendichtung*, 2 vols., Berlin: Erich Schmidt Verlag, 1964-1965, II, 95-99. Michel Huglo, "Cluniac monks". The office's text was published by Dom Jean Leclercq, *Pierre le Vénérable*, Saint-Wandrille: Éd. de Fontenelle, 1946, 379-90 (edition based on Paris, B.N. lat. 17716). The seven proses listed by Szövérfy (after Dreves) include two of doubtful authorship; one of them, "Regis aeterni regia", in honour of St. Hugh, was published without attribution in Dom A. L'Huilier, *Vie de Saint Hughes abbé de Cluny*, Solesmes, 1888, 621-23, and reproduced in Joan Evans, *Monastic Life at Cluny, 910-1157*, London: Oxford University Press, 1931, 117-19. In addition to the pieces mentioned, the antiphon "Ave, stella matutina" is also attributed to Peter the Venerable in Szövérfy's book.

<sup>102</sup>J.-P. Migne, PL 189, Paris, 1890: *Petri Venerabilis, Epistolarum libri sex*, Ep. VI: xxxii, cols. 444-446 [446A].

<sup>103</sup>G. de Valous, "Cluny", col. 165.

<sup>104</sup>Id., col. 163. Dom René-Jean Hesbert, "Les témoins manuscrits du culte de Saint Odilon", *A Cluny. Congrès scientifique en l'honneur des saints abbés Odon et Odilon*, Dijon: Société des Amis de Cluny, 1950, 51-120 [107-19].

<sup>105</sup>J. Evans, *Monastic Life*, 105-7. J. Szövérfy, *Die Annalen*, I, 375-76.

<sup>106</sup>R. Steiner, "Marian Antiphons", 189, 200-201.

<sup>107</sup>J. Hourlier, "Remarques", 231-32.

<sup>108</sup>John of Salerno, *Vita*, cols. 50-52.

<sup>109</sup>On the ecclesiastical status of Saint-Martin de Tours, see Charles Lelong, "Culture et société (IVe-XIIe siècles)", *Histoire de Tours*, ed. Bernard Chevalier, Toulouse: Privat, 1985, 49-90 [60, 66-72]. Theoretically an abbey after 674, it was reformed as a collegiate church in 818.

<sup>110</sup>John of Salerno, *Vita*, col. 48. Udalricus, *Antiquiores consuetudines*, in J.-P. Migne, PL 149, Paris, 1882, 689C, specifies: "antiphonas non antiquas, sed novas". Michel Huglo, "Odo", *The New Grove*, vol. 13, 503-4. On Odo's hymns, see Martinus Marrier, *Bibliotheca Cluniacensis*, Paris: Robert Fovet, 1614, cols. 263-264; J.-P. Migne, PL 133, Paris, 1881, cols. 513-16 (*Hymni Quatuor*); Guido Maria Dreves (ed.), *Analecta Hymnica Medii Aevi*, vol. 50, Leipzig, 1907 (repr. New York: Johnson R. Corp., 1961), 264-70; Bruno Stäblein, *Hymnen (I)* [Monumenta Monodica Medii Aevi, I], Kassel: Bärenreiter, 1956 [repr. 1995], 99, 544-46; J. Szövérfy, *Die Annalen*, I, 320-22.

<sup>111</sup>Dom Joseph Pothier, "Douze antiennes de saint Odon de Cluny en l'honneur de S. Martin de Tours", *Revue du Chant Grégorien*, XV (Août 1906 - Juillet 1907), n°s 5-7 (Déc. 1906- Fév. 1907), 65-73 [71-72].

<sup>112</sup>J.-P. Migne, PL 133, 516, states that *Martini renitet* was composed by Odo when he was on his deathbed.

<sup>113</sup>J. Pothier, "Douze antiennes", 72-73.

<sup>114</sup>R. Monterosso, "Cluniacensi e Cistercensi", 49.

<sup>115</sup>B. Stäblein, *Hymnen*, 546.

<sup>116</sup>John of Salerno, *Vita*, cols. 47-49, 51-53, 61-62, 73, 83-86.

<sup>117</sup>J. Pothier, "Douze antiennes", 70. Recently, the composition of the "Quem quaeritis" dialogue was hypothetically attributed by J. Drumbl to Odo's personal influence at Fleury (Johann Drumbl, *Quem quaeritis, Teatro sacro dell'alto medioevo*, Roma: Bulzoni, 1981, 75, 134-38; see also Anselme Davril, "Le *Quem Quaeritis* et Saint-Benoît-sur-Loire", paper presented to the Corpus Troporum Conference held in Paris, 1985; id., "Johann Drumbl and the Origin of the *Quem*

*Quaeritis: A Review Article*", *Comparative Drama*, 20 (1986), 65-75). Drumb's argument has not been generally accepted (cf. the criticism of C. Clifford Flanigan, "Medieval Latin Music-Drama", *The Theatre of Medieval Europe. New Research in Early Drama*, ed. Eckehard Simon, Cambridge: Cambridge University Press, 1991, 21-41 [28]). I am indebted to Nils Holger Petersen for his help in locating the relevant bibliography on this subject.

<sup>118</sup>Martin Gerbert, *Scriptores ecclesiastici de musica sacra potissimum*, I, St. Blasien, 1784 (repr. Hildesheim: Georg Olms, 1963), 247-64.

<sup>119</sup>F. A. Gevaert, *La mélodie antique dans le chant de l'église latine*, Gand, 1895, 187, cit. by Dom Pierre Thomas, "Saint Odon de Cluny et son oeuvre musicale", *A Cluny. Congrès scientifique en l'honneur des saints abbés Odon et Odilon*, Dijon: Société des Amis de Cluny, 1950, 171-80 [172].

<sup>120</sup>Hugo Riemann, *Geschichte der Musiktheorie im IX-XIX Jhdt.*, Leipzig, 1898, cit. by Michel Huglo, "L'auteur du «Dialogue sur la musique» attribué à Odon", *Revue de musicologie*, lv (1969), 119-71 [141]. P. Thomas, "Saint Odon de Cluny et son oeuvre musicale".

<sup>121</sup>Raffaello Monterosso, "Cluniacensi e Cistercensi riformatori del canto gregoriano", in *Rassegna della Istruzione Artistica*, II/1 (1967), 41-55.

<sup>122</sup>M. Huglo, "L'auteur du «Dialogue»".

<sup>123</sup>Cassiodorus, *Institutiones*, cit. in Oliver Strunk, *Source Readings in Music History, I: Antiquity and the Middle Ages*, London: Faber & Faber, 1981, 88.

<sup>124</sup>S. Ambrosii, *Enarrationes in XII psalmos davidicos*, ed. J.-P. Migne, PL 14, Paris, 1882, cols. 963 ff. [966B]

<sup>125</sup>Robert J. O'Connell, *Art and the Christian Intelligence in St. Augustine*, Oxford: Basil Blackwell, 1978, 65-90 [83].

<sup>126</sup>Despite powerful Hellenistic influence, the ancient world in general — and Palestine in particular — were places in which hearing continued to dominate, especially in the transmission of religious truths. Auditory imagery therefore prevails over visual imagery in the Judaeo-Christian tradition: Edward Foley, *Foundations of Christian Music: The Music of Pre-Constantinian Christianity*, Bramcote, Nottingham: Grove Books, 1992. In Radulphus Glaber's books written at Cluny, hearing shares with vision the higher status among senses: cf. Edmond Ortigues and Dominique Jogna-Prat, "Raoul Glaber et l'historiographie clunisienne", *Studi Medievali* XXVI (1985), 537-72 [553]. Glaber's connection with Cluny is discussed in Roberto Romagnoli, "La cultura cluniacense tra Oddone e Maiolo nell'opera di Rodolfo il Glabro", *Quaderni medievali*, 33 (1992), 6-34.

<sup>127</sup>R. O'Connell, *Art and the Christian Intelligence*, 68-69.

<sup>128</sup>Boethius, *De Consolatione Philosophiae*, cit. by Russel A. Peck, "Number as Cosmic Language", *By Things Seen: Reference and Recognition in Medieval Thought*, ed. David L. Jeffrey, Ottawa: The University of Ottawa Press, 1979, 47-80 [61].

<sup>129</sup>The passages referred to by Odo are readily available in English translation in Oliver Strunk (ed.), *Source Readings in Music History, I: Antiquity and the Middle Ages*, London: Faber & Faber, 1981, 71-75.

<sup>130</sup>I Samuel, 16: 23.

<sup>131</sup>"*Siquidem beatus Augustinus in libro Confessionum perhibet quia poenaliter peccat, qui in divinis responsoriis modulatione magis quam sensu verborum delectatur. Sanctus quoque Hieronymus in epistola ad Ephesios disserit, quod non sunt in Ecclesia guttur, et voces dulci ac theatri modulatione colendae, quia Deo non voce sed corde cantandum sit. Nos vero econtra modulatione magis humanas aures quam divinas pensamus: cum ad hoc institutus sit*

*psallendi usus, ut sicut David citharizando nequam spiritum compescebat in Saul, ita cantores modulando quaelibet diabolica desideria de cordibus audientium expellant*": Oddonis abbatis Cluniacensis *Collationum libri tres*, ed. D. Marrier, in J.-P. Migne, PL 133, Paris, 1881, cols. 517A-638C [564B-C].

<sup>132</sup>O. Strunk, *Source Readings*, 72.

<sup>133</sup>Aurelian of Rëomé attributes to the sweetness of music (= melodiousness, implying the notions of harmonic order and temporal fluidity) the power to heal mental illnesses; in the same passage, he also refers to the episode of David and Saul. Cf. Aurelian Reomensis, *Musica disciplina*, ed. Lawrence Gushee [Corpus Scriptorum de Musica, 21], American Institute of Musicology, 1975, 58; same text in the older edition, M. Gerbert, *Scriptores*, I, 30.

<sup>134</sup>St. Ambrose, *Enarrationes*, 965B-C/966A, 968B-C.

<sup>135</sup>Odo of Cluny had a special veneration towards Gregory I (John of Salerno, *Vita*, 52) and Gregory, in his homily 34, speaks at length of the nine orders of angels (Gregory the Great, *Forty Gospel Homilies*, trans. David Hurst, Kalamazoo (Mich.): Cistercian Publications, 1990, 280-300 [285-89]). Hermann de Carintia, who belonged to the circle of Peter the Venerable, distributed the nine angelic choirs in between the ten celestial spheres in his astronomical treatise *De essentiis*: Marie-Thérèse d'Alverny, "Abélard et l'astrologie", *Pierre Abélard - Pierre le Vénérable*, Paris: C.N.R.S., 1975, 611-30 [622].

<sup>136</sup>Petrus Cellensis, *L'École du Cloître [De Disciplina claustrali]*, ed. Gérard de Martel, Paris: Éd. du Cerf, 1977, 181-83, and notes.

<sup>137</sup>Isa. 6:1-4, Job 38:7, Ad Heb. 8:5, Apoc. 19:1-3. See also Allen Cabaniss, *Pattern in Early Christian Worship*, Macon (Georgia): Mercer University Press, 1989, 33-36.

<sup>138</sup>John of Salerno, *Vita*, col. 54.

<sup>139</sup>A. Reomensis, *Musica disciplina*, 59; or M. Gerbert, *Scriptores*, I, 30.

<sup>140</sup>Gunilla Iversen, "Supera agalmata. Angels and the Celestial Hierarchy in Sequences and Tropes. Examples from Moissac", *Liturgy and the Arts in the Middle Ages. Studies in Honour of C. Clifford Flanigan*, ed. Eva Louise Lillie and Nils Holger Petersen, Copenhagen: Museum Tusculanum Press, 1996, 95-133.

<sup>141</sup>*Regula Magistri*, cit. by P. Brown, *Society and the Holy*, 319.

<sup>142</sup>St. Basil, *Exegetic Homilies*, trans. S. Agnes Clare Way, Washington, D.C.: The Catholic University of America Press, 1963, 153.

<sup>143</sup>Chapter XIX (De disciplina psallendi): *La Règle de Saint Benoît. Texte latin traduit et annoté par des fils du Saint Patriarche*, Paris: Desclée de Brouwer, 1933, 66. The latest edition of St. Benedict's rule, not available to me, is *La Règle de saint Benoît*, ed. by Adalbert de Vogüé and Jean Neufville, 7 vols. [Sources Chrétiennes 181-6 plus one volume hors-série], Paris: Éditions du Cerf, 1971-1977.

<sup>144</sup>*Vita Sancti Hugonis auctore Hildeberto cenomanensi episcopo*, ed. J.-P. Migne, PL 159, Paris, 1903, cols. 857-894 [884-85].

<sup>145</sup>"*Ubi aperiuntur coeli, assistunt angeli, ubi terrena caelestibus iunguntur, ubi angelis homines sociantur*": Aelredi Rievallensis [Aelred, Abbot of Rievaulx, 1110-67], *Opera Omnia, I: Opera Ascetica*, Turnhout, 1971, 98 (*De speculo caritatis*, II, xxiii: 1254-55). English translation by Elizabeth Connor, in Aelred of Rievaulx, *The Mirror of Charity*, Kalamazoo (Mich.): Cistercian Publications, 1990, 211.

<sup>146</sup>Carol Heitz, "Mathématique et Architecture", *Musica e Arte Figurativa nei secoli X-XII*, Todi: L'Accademia Tudertina, 1973, 169-93. It includes a section on Cluny III [187-90]. The proportions of Cluny III are thoroughly analysed in K. J. Conant, *Cluny*, 78-80, 142-46.



- <sup>147</sup>Charles E. Scillia, "Meaning and the Cluny Capitals: Music as Metaphor", *Gesta*, 27 (1988), 133-48.
- <sup>148</sup>K. J. Conant, *Cluny*, 89-91 and plates LXVIII to LXX.
- <sup>149</sup>Jacques Chailley, "Les huit tons de la musique et l'éthos des modes aux chapiteaux de Cluny", *Acta musicologica*, 57 (1985), 73-94 [74-75].
- <sup>150</sup>J. Chailley, "Les huit tons", 75-76.
- <sup>151</sup>Id., 76-78, 90.
- <sup>152</sup>Michel Huglo, "Les instruments de musique chez Hucbald", *Hommages à André Boutemy*, ed. Guy Cambier, Bruxelles, 1976, 178-96 [187]; id., "Deux séquences de musique instrumentale", *Revue de Musicologie*, 76 (1990), 77-82 [80].
- <sup>153</sup>The cythara is the symbol for the body of Christ: cf. P. Cellensis, *L'École du Cloître*, 183 (n.).
- <sup>154</sup>Jacques Chailley, "Essai d'explication des chapiteaux de Cluny - les huit tons de la musique", *Requientes modos musicos: Mélanges offerts à Dom Jean Claire*, ed. Daniel Saulnier, Solesmes: Abbaye Saint-Pierre, 1995, 203-10 [206].
- <sup>155</sup>J. Chailley, "Les huit tons", 78-82.
- <sup>156</sup>Kathi Meyer, "The Eight Gregorian Modes on the Cluny Capitals", *The Art Bulletin*, 34 (1952), 75-95 [81-82].
- <sup>157</sup>Id., *ibid.*
- <sup>158</sup>J. Chailley, "Les huit tons", 84, 90. The theological doctrine of the seven gifts of the Holy Spirit is inspired by a biblical passage, Isaiah 11: 1-5.
- <sup>159</sup>K. Meyer, "The Eight Gregorian modes", 81-82; J. Chailley, "Les huit tons", 84-85.
- <sup>160</sup>L. Delisle, *Inventaire*, 337-73. About the date of this catalogue, see André Wilmart, "Le convent et la bibliothèque de Cluny vers le milieu du XI<sup>e</sup> siècle", *Revue Mabillon*, XI (1921), 89-124, and especially Veronika von Büren, "Le catalogue de la Bibliothèque de Cluny du XI<sup>e</sup> siècle reconstitué", *Scriptorium*, 46 (1992), 256-67. The surviving books listed in the catalogue are discussed in Jean Vezin, "Une importante contribution à l'étude du Scriptorium de Cluny à la limite des XI<sup>e</sup> et XII<sup>e</sup> siècles", *Scriptorium*, 21 (1967), 312-20.
- <sup>161</sup>G. M. Dreves (ed.), *Analecta Hymnica*, vol. 48, Leipzig, 1905, 34-37 (n<sup>os</sup> 22-27). Dreves attributes the text to Peter Damian, who visited Cluny in 1063.
- <sup>162</sup>B. Stäblein, *Hymnen*, 361, 398-99 (Verona, n<sup>os</sup> 148-151, 153: melody 501).
- <sup>163</sup>Nrs. 24, 162, 288, 414, 421, 464, 472 [= Paris, B. N. n. acq. lat 2664], 476, 478-479 [= Paris, B. N. n. acq. lat. 340], 480, 483 and 499. In addition, nr. 291 contained, among other items, musical works by Fulbert of Chartres (*epistole domni Fulberti et aliud ipsius de versibus, rhythmis, hymnis, prosa et cantu*). The first section of this manuscript may still survive as the initial section of codex Paris, B. N. lat. 2872 (this hypothetical connection with Cluny was suggested to me by Michel Huglo). On Fulbert's compositions and musical circle, see Yves Delaporte, "Fulbert de Chartres et l'école chartraine de chant liturgique au XI<sup>e</sup> siècle", *Études grégoriennes*, II (1957), 51-81.
- <sup>164</sup>J.-P. Migne, PL 144, Paris, 1853: *S. Petri Damiani, Epistolarum libri octo*, VI, Ep. iii (ad Ugonem abbatem), col. 373C.
- <sup>165</sup>Id., Ep. xxii (ad Damianum monachum, ex sorore nepote), col. 405B.
- <sup>166</sup>E.g. the criticism of Idung of Prüfening in his *Dialogus duorum monachorum*: R. B. C. Huygens, "Le moine Idung et ses deux ouvrages", *Studi Medievali*, XIII (1972), 291-470 [391]. English translation: *Cistercians and Cluniacs (a dialogue between two monks)*, Kalamazoo (Mich.), 1977, 44, 196. On this dialogue, see A. H. Bredero, *Cluny et Cîteaux*, VII: "Le *Dialogus duorum*

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*monachorum*. Un rebondissement de la polémique entre Cisterciens et Clunisiens", 185-276. The Cistercian criticism of "Cluniac" musical practices deserves a separate study, which will not be pursued here.

## CHAPTER 2

### THE MUSICAL SOURCES

#### 2.1 PRELUDE

#### 2.2 MANUSCRIPTS WITH CHANTS FOR THE OFFICE

#### 2.3 MANUSCRIPTS WITH CHANTS FOR THE OFFICE AND THE MASS

#### 2.4 MANUSCRIPTS WITH CHANTS FOR THE MASS

#### 2.5 CODA

#### 2.1 PRELUDE

The Abbey of Cluny was, in the Middle Ages, the seat of an important library; given the exceptional number of monks it housed, it must have owned an imposing collection of choir books as well. Between the sixteenth and the eighteenth centuries, however, the vast majority of the Cluny manuscripts were destroyed. The contents of the medieval library were investigated more than a century ago, on the basis of the available documents, by Leopold Delisle in his invaluable *Inventaire des manuscrits de la Bibliothèque Nationale (Fonds de Cluni)*<sup>1</sup>. However, Deslisle's inventory does not generally include manuscripts from Cluniac priories, such as Saint-Martin des Champs<sup>2</sup>. Most of the surviving liturgical manuscripts from Cluny (or closely related to the Burgundian abbey) are discussed by André Wilmart in his article for the *Dictionnaire d'archéologie chrétienne et de liturgie*<sup>3</sup>.

His survey includes the lectionaries, homiliaries and missals, but fails to include the most important musical sources. Relying on Delisle's *Inventaire*, Wilmart refers to existing musical notation only in Paris, B. N. nouv. acq. 2244, fol. 9 (fragment from a breviary, twelfth century); Paris, B. N. nouv. acq. 1436, pages 1-4/729-32 (fragment from a missal, early thirteenth century); and Paris, B. N. lat. 10938 (a miscellaneous book mostly written between 1256 and 1275).

For a thorough presentation of surviving Cluniac musical sources, we have to turn to Jacques Hourlier's study on Cluniac notation<sup>4</sup> and Michel Huglo's article on Cluny in *The New Grove*<sup>5</sup>. From these authors we learn that only a handful of manuscripts copied at Cluny are extant (and we will see in a moment that their number should be further reduced); additional sources referred to by Huglo are Cluniac in a weaker sense. Printed sources, not taken into consideration here, are listed by J.-B. Martin<sup>6</sup>.

The survey which follows takes Huglo's article as its point of departure, supplementing it with information provided in secondary literature or derived from personal acquaintance with the manuscripts; liturgical sources without musical notation are nevertheless excluded<sup>7</sup>. The presentation of the sources is divided into three sections, corresponding to manuscripts with chants for the Office; with chants for the Office and the Mass; and with chants for the Mass. One should nevertheless be aware of the fact that occasionally, a service book intended for the Mass does contain additional material for the Office. In each of these three sections, full codices are presented first; fragments or sections of non-liturgical books then follow. Inside each sub-section, a rough chronological order is adopted.

Manuscripts not personally consulted, either directly or in microfilm, are signaled with an asterisk (\*).

## 2.2 MANUSCRIPTS WITH CHANTS FOR THE OFFICE

### 2.2.1 Full codices

1)\* Berlin Deutsche Staatsbibliothek theol. lat. qu° 377. A Winter breviary (from the fourth week of Advent to Ascension) from a non-identified (possibly Italian) Clunisian monastery, written in the second quarter of the eleventh century. It has been described by Victor Leroquais<sup>8</sup>. After careful comparative analysis, Anselme Davril concludes that this source belongs to the larger Clunisian tradition, but is not representative of the liturgy at Cluny itself<sup>9</sup>.

2) Paris, B.N. lat. 12601, a Summer breviary with neumes, datable between 1064 and 1095. The codex was first described by Victor Leroquais and later commented upon by Pierre Salmon<sup>10</sup>. The flyleaves, taken from a notated missal, will be discussed below. Antoine Auda seems to have been the first scholar to have assumed that it was written at Cluny<sup>11</sup>. Ever since, this manuscript has been regarded as the earliest source from Cluny containing Office chants; it has been central in Ruth Steiner's work and was the basis for an edition of a complete Cluniac matins service for the Feast of Saint Peter's Chains<sup>12</sup>. According to Leroquais, this manuscript belonged originally to Cluny and was used at a priory in the Amiens diocese.

Jacques Hourlier's study of the breviary established that it was used at the monastery of St. Taurin l'Échelle in Picardy (founded around the second quarter of the twelfth century)<sup>13</sup>.

Although the liturgical contents of this source point to Cluny, Hourlier is surprised to find in the manuscript a *Vita Sanctae Fuscinulae* (a virtually unknown saint, absent from the Cluny calendar)<sup>14</sup>. Ruth Steiner, while accepting an origin in Cluny, uncovers a case of liturgical divergence between Paris 12601, on the one hand, and the testimony of the two extant Cluny breviaries with staff notation and Bernard's customary, on the other<sup>15</sup>. Raymond Étaix also remarks that, in what concerns the lessons, this source "ne constitue pas un témoin très pur: des textes ont été omis et d'autres ajoutés"<sup>16</sup>. Monique Cécile-Garand observes furthermore that "l'aspect de son écriture, le style de sa décoration, ne correspondent pas à ceux du groupe le mieux connu et le plus nombreux des manuscrits clunisiens produits pendant la même période", and suggests that it may have been either the work of a foreign scribe or written elsewhere for Cluny<sup>17</sup>. Pierre Salmon attributes the breviary not to Cluny, but, taking his cues from Leroquais, to a Clunisian monastery in the Amiens diocese<sup>18</sup>.

The study of the musical notation reinforces the doubts about the origin of the manuscript. Jacques Hourlier rightly identifies the two main musical copyists using a neumatic French notation: "Le premier serait plus tourangeau, avec, comme caractéristique, ses clivis en trois traits, tandis que le second les trace en deux traits raccordés par une courbe. Le changement de main se fait assez vite, au folio 51"<sup>19</sup>. Hourlier also observes that a different kind of notation is used in the

manuscript, "une notation messine élégante" [écrite] "par un moine du nord-est de la France, qui a été formé dans la région de Laon". This north-eastern kind of notation, used for incipits, is attributed to the cantor of Saint-Taurin and dated from the first half of the twelfth century ("une main du XIIe siècle encore assez proche de ses débuts"), while the French neumes are dated around 1075. He adds that a later music copyist uses a "Messine" (or "Lorraine") staff notation<sup>20</sup>.

The Lorraine neumes must, however, be contemporary with the French ones. This is implied by the contents of folios 34r, 36v, 46r and 160v: a few pieces are started with Lorraine neumes, and continued with French neumes written by one of the two main musical scribes. If these scribes chose to start copying neumes only on the second word or the second line of a given piece, it follows that the Lorraine notation found over the first word or the first line of the same piece precedes their work. This is compatible with the presence of later additions on fols. 6, 73 and 78.

It is therefore suggested here that the manuscript had its music written in a center where Lorraine and French neumes could easily have met. Although a north-eastern monk could have worked with French-educated monks at Cluny, to accept that the manuscript was written at Cluny would ignore notational, liturgical, paleographical and artistic oddities. There are hints that Saint-Taurin, which is near Roye (north-east of Noyon) had relations with Corbie (near Amiens) and was dependent from or at least closely linked to the priory of Lihons-en-Sangterre (c. 35 km east of Amiens, near the border of the diocese)<sup>21</sup>. Lihons-en-Sangterre, although located in French notational soil, is not only very close to the area where Lorraine notation was normally

used, but almost surrounded by it to the north, east, and south<sup>22</sup>. In fact, there was a time when the westward expansion of Lorraine notation reached Amiens itself<sup>23</sup>. It is therefore possible that the Saint-Taurin breviary was written at a Cluniac priory in the southeast of the Amiens diocese (or just possibly in the northwest area of the Noyon diocese) on the basis of an exemplar borrowed from Cluny. For historical reasons, Lihons-en-Sangterre seems to be the most probable place of origin for this manuscript, not only because of its connection with Saint-Taurin, but also because the only other medium-sized priory with a Cluny connection in the area (small priories had no *scriptorium*) is Montdidier, which was not Cluniac before 1130<sup>24</sup>.

3) Toledo, Biblioteca Capítular, ms. 44.2. An antiphoner with Aquitanian notation, written c. 1100 or in the first half of the twelfth century for a Cathedral, possibly Palencia (Spain). It has been described and analyzed by Ronald T. Olexy<sup>25</sup>; an Index of its contents was published in 1992<sup>26</sup>. Studies by Pedro Romano Rocha and Ruth Steiner have shown that, although its musical identity is basically Aquitanian, it was heavily influenced by Cluniac monastic traditions, probably filtered through Moissac<sup>27</sup>.

4)\* Douai, Bibliothèque Municipale, ms. 134. An early twelfth century breviary from Marchiennes described by Victor Leroquais, who does not refer to musical notation<sup>28</sup>. Michel Huglo seems to have seen Lorraine notation in it<sup>29</sup>.



5)\* Amiens, Bibliothèque Municipale, ms. 115. This choir breviary from Corbie, twelfth century (middle or second half), notated on staff, postdates the Cluniac reform at Corbie. It was described by Victor Leroquais<sup>30</sup>. Although Dom Hesbert regarded it as belonging to the Cluniac liturgical sphere, its list of responsories for the second and third Sundays in Advent is different from the Cluny list<sup>31</sup>.

6)\* Paris, B. N. lat. 12044. This twelfth-century antiphoner of St. Maur-des-Fossés (near Paris) was briefly described by John A. Emerson<sup>32</sup>. Its notation, on four-line staff and with letter clefs, was studied by Solange Corbin<sup>33</sup> and André Renaudin, who also produced a diplomatic edition of its offices for matins during Winter time (with the neumes of Paris, B. N. 12584 copied above for comparison)<sup>34</sup>. The system of invitatory tones was described by Ruth Steiner<sup>35</sup>. This antiphoner was used together with Paris, B. N. 12601 in an edition of the Cluniac matins service for the Feast of St. Peter's Chains<sup>36</sup>.

7) A noted breviary copied and decorated at Cluny in the late thirteenth century, and given in 1317 to the priory of St Victor-sur-Rhins, near Roanne (Loire), where it still survives. Although incomplete (it starts after the octave of the Epiphany, and has a few scattered *lacunæ*) it is an invaluable source, for no other office manuscript prepared at and for the Cluny Abbey is nearly as informative. This breviary came to the attention of the scholarly community only in the 1980s, when Anselme Davril and Michel Huglo published a full description and preliminary discussion of its contents<sup>37</sup>. It is a de luxe volume, measuring about 340 x 240 mm. and

counting 625 folios, with two columns a page and square notation on a four-line staff. The Temporal starts at folio 3, the Proper of Saints on folio 271, the Common of Saints on folio 547. Anselme Davril suggests that the scribe intended to copy the contents corresponding to Advent, Christmas and Epiphany after the Summer section, and finally did not<sup>38</sup>, while Ruth Steiner supposes that several fascicles have been lost from the beginning of the volume. In Steiner's words, this breviary "is by far the most complete extant source containing chants of the divine office copied at Cluny in staff notation. Its testimony is of critical importance to the study of the development and dissemination of the chant repertory of Cluny"<sup>39</sup>.

8)\* Montserrat, Monasterio, ms. 36. A breviary written around 1300 for the priory of Saint Vivant-de-Vergy (diocese of Autun, near Dijon), with square notation on red four-line staff. It was described by Alexandre Olivar<sup>40</sup>. Folio 352 was published in facsimile by Gregorio M<sup>a</sup> Suñol<sup>41</sup>. This MS is counted among the typical Clunisian sources by Dom Hesbert<sup>42</sup>.

9)\* Solesmes Rés. 334. Pierre Blanchard (followed by Jacques Hourlier) attributes to the scriptorium of Cluny a breviary written between 1299 and 1315 whose sanctoral volume (Summer part, incomplete, and Office of the Dead) entered the abbey of St. Pierre de Solesmes in 1945<sup>43</sup>. He also describes and discusses the manuscript, with square notation on four-line staff. The secular cursus (nine lessons and responsories during the night office) reveals that this breviary was intended for a parish church. Although the feasts in this

source are typically Clunisian, the inclusion in the litany of St. Austremonius (commemorated in Clermont) suggests a personal connection between the copyist (or addressee) and the Clermont diocese.

10-11)\* Paris, B. N. lat. 783, 785. These fourteenth century breviaries with Aquitanian notation on staff from Saint-Martial de Limoges (reformed by Cluny in 1062) were described by Victor Leroquaais<sup>44</sup>. Pedro R. Rocha's study of office responsories in Advent and the *Triduum sacrum* takes these breviaries into account; he uncovers a few peculiarities in their choice of texts, compared with other Clunisian sources<sup>45</sup>.

### 2. 2. 2 Fragments and individual folios

12) Paris, B. N. lat. 1692 is a volume containing works by St. Jerome. In the *Catalogue général* it is dated from the end of the tenth or [early] eleventh century, and Clunisian provenance is suggested on a very flimsy basis<sup>46</sup>. It contains musical additions in unheighted French neumes on fols. 44v/45r (R/. *Gloriosus precursor Johannes*, followed by *Lucis sempiternae beate*, also for St. John the Baptist) and 46v/47r (in a different hand, melisma over *Ego*, and [R/.] *Si diligis me symon petre*).

13) Paris. B. N. lat. 18304 is a volume containing the *Vitae* of St. Maiol and St. Odilo which belonged to Saint-Martin-des-Champs

(Paris). It also includes Jotsald's *planctus* for St. Odilo (fols. 124 ff.), with French neumes at the end (fols. 128v-129v); the climacus is sometimes almost horizontal, and the notation seems to be contemporary with the copying of the text. On fol. 140r, an addition from the late eleventh century (responsories for the Virgin Mary and Saint Peter) is entered in vaguely diastematic French neumes — a notation strikingly similar to that of Paris, B. N. 1087. Could this book, so closely tied with the memory of St. Maiol and St. Odilo, abbots of Cluny, have been written at the Burgundian abbey?

14)\* Roma, Biblioteca Casanatense 167. Contains the remains of a palimpsest antiphoner from the Clunisian monastery of S. Salvatore del Monte Amiata (south of Siena), dated by Bonifacio Baroffio from the second half of the eleventh century<sup>47</sup>.

15) Paris, B. N. nouv. acq. lat. 2244, fol. 9. This is a fragment from a breviary, probably from Cluny, written in the twelfth century and containing part of the office of the eleven thousand virgins. It was mentioned by Léopold Delisle<sup>48</sup>. The notation, of small square dots on four-line black staff, includes letter-clefs (F or C) and accidentals (flat and square B). On the verso's margin, one reads: "La Ville de cluny 1573".

16)\* Paris, Bibliothèque Universitaire, 169 (188.4.4), fols. 124v-126v, written in the twelfth century. It belonged to the Collège des Cholets, and contains the earliest copy of the Office of the

Transfiguration by Peter the Venerable, on staff. It was described by Madeleine Bernard, who also published two reproductions<sup>49</sup>.

17)\* Paris, B. N. lat. 10938. This miscellaneous book from Cluny, written mostly in the third quarter of the thirteenth century, was described by Léopold Delisle<sup>50</sup>. It includes a notated antiphon (*Ave regina celorum*, fol. 87) and five *Benedicamus Domino* melodies (fol. 95v), studied by Michel Huglo<sup>51</sup>.

## 2. 3 MANUSCRIPTS WITH CHANTS FOR THE OFFICE AND THE MASS

### 2. 3. 1 Full codices

1) Roma, Biblioteca Casanatense, 1907. An early eleventh century breviary-missal of Clunisian origin, notated in French neumes, thought to have been written in S. Salvatore del Monte Amiata (south of Siena)<sup>52</sup> and briefly described by John A. Emerson<sup>53</sup>. It includes St. Mustiola in the Litany (a martyr celebrated in Siena and other cities from central Italy), and, surprisingly, presents a non-Clunisian list of Post-Pentecost Alleluia versicles, among them a typically Italian choice, *Domine ne in ira tua*, taken from Psalm 6<sup>54</sup>. Given that the neumatic variants in *Le Graduel Romain* and the antiphonal *versus* reveal a Cluniac filiation<sup>55</sup>, the manuscript seems to mirror a stage in

Cluniac liturgy when the choice of Post-Pentecost Alleluia versicles was still entrusted to the cantor in charge<sup>56</sup>.

2) Paris, B. N. lat 12584. A Gradual and antiphoner from the eleventh century, used at the monastery of Saint-Maur-les-Fossés (reformed by Cluny in 989). It was described by Dom René-Jean Hesbert, who also transcribes its contents (text incipits)<sup>57</sup>. The modal indications in the codex have been examined by Michel Huglo<sup>58</sup>; the Advent, *Triduum sacrum*, and Easter responsories have been analyzed by Dom Hesbert and Pedro R. Rocha<sup>59</sup>, and the system of invitatory tones studied by Ruth Steiner<sup>60</sup>. Although it is a "Cluniac" source in the large sense, Hesbert makes it clear that the lists of responsories for the fourth Sunday in Advent and for Easter matins are different from the Clunisian lists<sup>61</sup>. Huglo raises the suspicion that local musical traditions were not completely superseded by those of Cluny<sup>62</sup>. Rocha, besides uncovering a number of peculiarities in this source when compared with other Clunisian manuscripts, suggests that the *R/. Octava decima die* (absent from Paris, B. N. lat 12044) represents the pre-Cluniac tradition of Saint-Maur<sup>63</sup>. Steiner remarks that "there are numerous points at which Paris 12584 does not follow the tradition of Cluny itself"<sup>64</sup>. The notation, briefly described by Solange Corbin<sup>65</sup>, has been thoroughly analyzed by André Renaudin<sup>66</sup>, who suspects, given both the liturgical discrepancies with Paris, B. N. lat. 12044 and the notational characteristics, that the codex originated at the abbey of Glanfeuil (Saumur, Maine-et-Loire), whose connection with Saint-Maur-les-Fossés spans two and a half centuries, until 1096<sup>67</sup>.

3) Cambridge, Fitzwilliam Museum, MS. 369. A breviary-missal from the Cluniac priory of Lewes (Sussex, England), written in the last third of the thirteenth century, with early fourteenth century additions. Victor Leroquais dedicated a monograph to it, where he describes and analyses the codex<sup>68</sup>. Hesbert included it in his survey of Advent responsories<sup>69</sup>. Its notation and musical repertoire was briefly studied by Stephen Holder<sup>70</sup>. The manuscript includes some musical iconography<sup>71</sup>.

Lewes was founded directly by Cluny in 1077 and was subordinate to it; Cluny received a fixed amount of money from Lewes every year and appointed its prior, who until the end of the fourteenth century seems to have been nearly always of French origin<sup>72</sup>. It is therefore not surprising that, in Stephen Holder's view, "by several standard tests the chant repertory . . . can be shown clearly to be Cluniac", in spite of some disagreements in melodic contour with Paris, B. N. lat 1087 which are possibly due to contamination from English musical traditions<sup>73</sup>. Dom Hesbert's work on the Advent responsories allows us to regard this source as a typical Clunisian manuscript<sup>74</sup>. Ruth Steiner also arrives at the conclusion that "comparison with the two later Cluny breviaries reveals that the Lewes manuscript presents a faithful record of the liturgy of Cluny"<sup>75</sup>. See the next chapter for a discussion of the Mass Proper.

4)\* Solesmes Rés. 28. Hourlier describes this processional written in the fifteenth century, which he attributes to Cluny. Michel Huglo, in a recent study, points out its liturgical proximity to Paris, B.N. lat

12584, but regards it as a Cluniac processional of Aquitanian provenance<sup>76</sup>.

### 2. 3. 2 Individual folios

5)\* Paris, B. N. lat. 17716. A compilation of the end of the twelfth century from St. Martin-des-Champs, containing the office of the Transfiguration, processional responsories and proses, three *Benedicamus Domino* melodies, the *Ite missa est*, etc., with staff notation. It was described by Léopold Delisle<sup>77</sup> and also by André Wilmart in his study of poetry by Pierre le Vénérable<sup>78</sup>. The text of the office was published by Jean Leclercq<sup>79</sup>. The sequence *Regis aeterni regia* for St. Hugh, possibly copied in the early thirteenth century, was fully edited from this source by Dom L'Huillier<sup>80</sup>. It was included by Michel Huglo in his survey (with classification and transcription) of *Benedicamus Domino* melodies<sup>81</sup>.

## 2. 4 MANUSCRIPTS WITH CHANTS FOR THE MASS

### 2. 4. 1 Full codices

1) Paris, B. N. lat. 1087. This Gradual and sequentiary from Cluny, copied in the late eleventh century, was described in the *Catalogue général des manuscrits latins*<sup>82</sup>, and also by Heinrich Husmann<sup>83</sup>,



Jacques Hourlier<sup>84</sup> and John A. Emerson<sup>85</sup>. A diplomatic transcription of its contents was carried on by the monks of Solesmes in their preparatory work for the critical edition of the *Gradual*<sup>86</sup>. A few folios have been reproduced in facsimile<sup>87</sup>. Given that this source is central to the present dissertation, it will be presented here in some detail.

Contents: Fol. 1r, Purification; 1v, Alleluias and prosula *In taberna*; 2r-72v: Winter-Spring temporale and sanctorale from Advent to Whit Saturday (Easter, 57r); 72v-86v: Summer sanctorale; 86v-95v: Sundays after Pentecost; 95v-96r: Trinity; 96r-97v: Requiem masses; 98r-101v: Kyriele (101v, Agnus tropes); 102r-111r: proser and sequentiary; 111v-112r, Prosa for St. Vincent; 112v-115r: Office of St. Odilo; 115v-116r: *Hymnus de Gloriosa Virgine Maria* (Aquitanian notation); 116v: three *Benedicamus* settings; 117v-118v: sequences *Clara chorus* and *Celeste organum*. The additions on folios 1 and 111v to 116v are almost contemporary with the rest of the manuscript. At least eleven folios are missing: between fols. 1/2, 7/8, 12/13, 43/44, 55/56, 56/57, 65/66, 69/70, 74/75, 75/76 [75<sup>bis</sup> is fragmentary] and 110/111. Of the nine or more miniatures originally in this manuscript only one has not been torn out.

Date: The *Catalogue général* proposes the end of the tenth or the eleventh century; *Le Graduel Romain* places it in the first half of the eleventh century; Jacques Hourlier, in the mid-eleventh century; John A. Emerson, in the eleventh century without any qualification<sup>88</sup>. Art historian Meyer Schapiro presents a more focused view, however. He describes the decoration as a Germanic variant of the Romanesque style<sup>89</sup>. According to him, German influence at the Cluny scriptorium is not earlier than the second half of the eleventh century, and is

possibly due to the presence there of the scribe Albert the German (active in the early twelfth century) and his father, Andreas<sup>90</sup>. For him, the Gradual "was written in the last quarter of the 11th century by the same hand as the rubrics and majuscles of the Parma Codex"<sup>91</sup>. Taking into account Schapiro's work, Jean Vezin places the manuscript in the second half of the century<sup>92</sup>. Michel Huglo thinks that it was written in its last third<sup>93</sup>. David Hiley first dated the codex from the third quarter of the century<sup>94</sup>, but later accepted Schapiro's dating<sup>95</sup>.

Provenance: Scholars agree that this manuscript was written at Cluny. Though Hourlier raises a doubt, based on the presence of the feast for *Sci. Evurtii epi.* on Sept. 7 (fol. 82v), there are no grounds for it, since the feast was part of the Cluniac calendar from at least the time of Bernard's customary<sup>96</sup>.

Studies: The notation has been closely examined by Raillard, Hourlier and Ferreira<sup>97</sup>. Hourlier notes that "diverses mains ont contribué à noter ce manuscrit. La plus ancienne s'est chargée du graduel lui-même et du kyriale [...] Il ne semble pas qu'on doive attribuer à la même main les proses et les séquences (f. 102-111v et 1r) [...] Cette main aurait également noté quelques additions au kyriale (f. 99v et le f. 1v). A une autre main serait due un Sanctus additionnel (f. 100v) [...] ces mains appartiennent toutes à un même atelier, sans qu'on puisse les classe chronologiquement [...] On relèvera aussi une tendance à la diastématie, très relative, qui n'est complète qu'à la fin du manuscrit"<sup>98</sup>. Raillard first interpreted the notation in the light of the special signs of the Montpellier Tonary<sup>99</sup>, while Ferreira, besides exploring this issue, also discusses the question of the rhythmic significance of some descending forms. The chants of the ordinary, the

sequences, the prosula and the tropes have been dealt with by David Hiley<sup>100</sup>. The Office of S. Odilo has been textually transcribed and studied by Dom Hesbert<sup>101</sup>. See the next chapter for a discussion of the Proper of the Mass.

2) Bruxelles, B. R. II 3823. Gradual-sequentiary with diastematic Aquitanian notation on Guidonian staff<sup>102</sup>, written in the first third of the twelfth century in the Clermont diocese for the Cluniac priory of Sauxillanges (southeast of Clermont). It was fully described and analyzed by Michel Huglo, who excluded, on liturgical grounds, the hypothesis that the manuscript was made for Cluny or the important priory of Souvigny (near the northern border of the Clermont diocese) and, based on the additions (written by a notarial hand), proposed Sauxillanges instead<sup>103</sup>. Huglo later assumed that the manuscript was written at Souvigny for Sauxillanges<sup>104</sup>, since Sauxillanges seems to have had no *scriptorium* (except for archival purposes) and at Souvigny both Aquitanian and French notations were used<sup>105</sup>. Since the important Cluniac house of St. Flour (south of Clermont) practiced the Aquitanian notation and was located in the area where the colored Guidonian staff was used, it could also be considered as a possible place of origin for this manuscript. Smaller priories often had no means to produce liturgical books and are therefore improbable, though not impossible, candidates. Unlike Thiers (St. Symphorien), to the east of Clermont, which adopted Aquitanian notation, Sauxillanges, La Voulte-Chilhac, Ris and Mozac did not leave, as far as we know, any musical records; this may however be due to historical accident. Thus, the exact provenance of this gradual within the Clermont diocese can

not be established with any certainty<sup>106</sup>. This manuscript was one of the few sources copied by the monks of Solesmes into the comparative tables prepared in view of the critical edition of the *Graduale*<sup>107</sup>. See the next chapter for a discussion of its melodic versions.

3)\* Douai, Bibliothèque municipale, ms. 90: a Missal from Anchin in two volumes, from the end of the twelfth century, with Lorraine notation on staff (four lines alternatively red and green). Described in detail by Victor Leroquais<sup>108</sup>. A few folios have been reproduced in facsimile<sup>109</sup>. According to David Hiley, it has the Cluniac alleluia series but non-Cluniac melodic variants<sup>110</sup>.

#### 2. 4. 2 Fragments and individual folios

4)\* Solesmes, G. 31-34. This fragment from a Gradual, c. 1000, possibly written at Cluny, contains the introit *Vultum tuum* and the communion *Tu es Petrus*. It was formerly attached to the troper-proser of Moissac (Paris, B. N., n. a. lat. 1871)<sup>111</sup>.

5) Paris, B. N. lat. 12601, folios C/D. Fragment of a noted missal, from Septuagesima to Quinquagesima. It was described by Hourlier, who dates the text from the early tenth century; the neumes seem to have been added later, but, according to him, still in the first half of the tenth century<sup>112</sup>. I find it more likely, however, that they belong to the eleventh century; Michel Huglo agrees, suggesting the late eleventh century<sup>113</sup>. Hourlier puts the form of the neumes in relation to

documents from Angers and Tours; Huglo confirms the relationship, namely in the adoption of an almost horizontal climacus. Other characteristic notational features, besides those referred to by Hourlier, are the i-shaped form of repercussed notes and the substitution of *virgae* for *puncta*. In spite of Hourlier's statement that "nous ne pouvons malheureusement pas savoir si la feuille de garde aura été neumée à Cluny", we can reasonably suppose that it was not, since there are significant neumatic variants between this bifolium and Paris, B. N. lat. 1087: Intr. *Esto michi*, on *et locum*; Comm. *Inlumina faciem*, on *servum*. There are still more variants in these two pieces between the bifolium and the eleventh century Tours missal Paris, B. N. lat. 9434. This fragment cannot therefore be used as evidence for Hourlier's hypothesis that the notation used at Cluny originated in Tours. Since he has no other evidence to support this hypothesis (the neumatic variants concern the musical contents, not the notation), I do not take it here into account.

6) Le Mans, Bibliothèque Municipale, ms. 23. A noted missal from Nogent-le-Rotrou (diocese of Chartres, approximately mid-way between Chartres and Le Mans) with some musical notation. Leroquais, who first described it, dated the source from the second half of the eleventh century, but he regarded the music as having been written in the twelfth and thirteenth centuries<sup>114</sup>. Later on, Monique-Cécile Garand subjected the manuscript to a detailed codicological analysis, which revealed a complex internal organization. She distinguishes two elements, A and B. Element B (55 folios) is dated by Garand from the mid-eleventh century and attributed to the Cluny scriptorium; it

includes French neumes *in campo aperto*, namely above the prayers for the benediction of the Paschal candle (fols. 128-129). Element A, dated between 1081 and 1094 and attributed to a copyist working at Nogent, includes "neumes français tracés au-dessus d'une ligne de portée rouge" on fols. 100-109r (end of Temporal section) and several additions from the early thirteenth century<sup>115</sup>.

7)\* Solesmes G. 89. Folio from a noted Missal, mid-twelfth century. Partially reproduced in volume III of *Paléographie Musicale* (pl. 188C)<sup>116</sup>. Described by Hourlier, who observes its "notation neumatique française, à diastématique très vague"<sup>117</sup>.

8) Paris, B. N. nouv. acq. lat. 1436, pages 1-4, 729-32. Fragment of a noted Missal from the early thirteenth century, attached to a volume from the Cluny library, which contains a twelfth century lectionary, a Vita S. Marcelli and a tract by Pierre le Vénérable. Mentioned by Léopold Delisle, who gives a full description of the codex<sup>118</sup>. Includes "une notation à petits carrés, sur quatre lignes" (Hourlier)<sup>119</sup> for the following pieces from the week after Pentecost: p. 1, (feria ii) All. v/. *Loquebantur*, Co. *Spiritus sanctus docebit*, (fer. iii) Intr. *Accipite iocunditatem*, All. v/. *Factus est repente*; p. 2, Co. *Spiritus qui a patre procedit*, (fer. iiiii) Intr. *Deus dum egredereris*; p. 3, Gr. *Benedictus es domine*, All. v/. *Benedictus es domine*, Off. *Benedictus sit deus*; p. 4, Co. *Benedicimus deum celi*; p. 729, All. v/. *Repleti sunt omnes*, Co. *Pacem meam* (fer. v) All. v/. *Spiritus domini replevit*, \*All v/. *Imitte spiritum*; p. 730, (fer. vi) Intr. *Repleatur os meum*, All. v/. *Spiritus est deus*; p. 731, Co. *Spiritus ubi vult* (sabb.) Intr. *Karitas dei*;

p. 732, Co. *Non vos relinquam* (Dom. oct. pent.) Intr. *Benedicta sit*. The rubrics assign the Alleluia verses *Spiritus domini* and *Factus est repente* also to Tuesday and Friday, respectively. The assignment of Alleluias is clearly more developed here than in Paris, B. N. lat 1087, fols. 70v-72r; and there is a higher degree of liturgical stability, which is hardly surprising given that the two manuscripts were copied more than one century apart; but the neumatic shapes are the same (with one exception, discussed below).

## 2. 5 CODA

To summarize: from thirty sources surveyed, there are at least twenty-four which belong, to varying degrees, to the Clunisian tradition. From Cluny itself, we basically have a gradual from the late eleventh century (Paris B. N. lat. 1087) and two breviaries from around 1300 (St Victor-sur-Rhins, from the Abbey, and Solesmes Rés. 334, written for a parish church). One could add a few notated folios from c. 1000 (Solesmes G. 31-34) and the mid-eleventh century (Le Mans 23), two additions from the second half of the eleventh century (Paris, B. N. lat. 18304), two folios copied in the twelfth century (Paris, B. N. n. a. lat 2244 and Solesmes G. 89), some more pieces from the late twelfth century (Paris, B. N. lat. 17716), four folios from the early thirteenth century (Paris, B. N. n. a. lat 1436) and some entries from the third quarter of the thirteenth century (Paris, B. N. lat. 10938).

Typically Cluniac codices written elsewhere include the breviaries from St. Taurin (Paris, B. N. lat. 12601, late eleventh

century) and Vergy (Montserrat 36, c. 1300), the Breviary-Missals of Monte Amiata (Rome, Bibl. Casanatense 1907, early eleventh century) and Lewes (Cambridge, Fitzwilliam Museum 369, late thirteenth century), the Gradual of Sauxillanges (Bruxelles, B. R. II 3823, early twelfth century) and the antiphoner of St. Maur-des-Fossés (Paris, B. N. lat. 12044, twelfth century). Detailed comparison of these codices with the surviving manuscripts from Cluny has barely begun<sup>120</sup>. In the following chapters, selected chants from the proper of the Mass in the Cluny Gradual will be compared, first to Clunisian codices, then to representatives of other liturgical traditions.

<sup>1</sup>L. Delisle, *Inventaire*. See also J. Vezin, "Une importante contribution".

<sup>2</sup>L. Delisle, *Inventaire*, xxiv.

<sup>3</sup>André Wilmart, "Cluny (manuscripts liturgiques de)", *Dictionnaire d'archéologie chrétienne et de liturgie*, ed. F. Cabrol and H. Leclercq, Tome 3/2<sup>e</sup> Partie, Paris, 1914, cols. 2074-92.

<sup>4</sup>Jacques Hourlier, "Remarques sur la notation clunisienne", *Revue grégorienne*, 30 (1951), 231-40.

<sup>5</sup>M. Huglo, "Cluniac monks".

<sup>6</sup>J.-B. Martin, "Bibliographie liturgique de l'abbaye de Cluny", *Annales de l'Académie de Mâcon*, 3e série, XV/ii (1910) [Millénaire de Cluny, vol. II], 147-63.

<sup>7</sup>In Huglo's article "Cluniac monks", the mention "(?without notation)" means that the author has no information about musical notation in the manuscript but has not personally examined it. The breviary from Payerne (second half of the twelfth century) has no such mention but should be counted in this category, if one takes into account its description in Josef Leisibach, *Iter Helveticum, I: Die liturgischen Handschriften der Kantons- und Universitätsbibliothek Freiburg*, Freiburg: Universitätsverlag, 1976, 56-59. Huglo does not refer to musical notation in the breviary from St Vivant de Vergy; it is, however, a noted breviary, and as such it will be included in the present survey. The reference to London, British Library, ms. add. 49363, written c. 1300, should be corrected: it is not a breviary, but an apparently misbound breviary-missal without notation from the priory of Wenlock or Pontefract (a dependency of La Charité-sur-Loire). This source is briefly described in Andrew Hughes, *Medieval Manuscripts for Mass and Office. A Guide to Their Organization and Terminology*, Toronto: University of Toronto Press, 1982 [396, 404, and passing references throughout the book; refers to Andrew Hughes's provisional inventory "Forty-seven Medieval Office Manuscripts in the British Museum", a typescript on deposit in the British Library's Student's Room]. Huglo includes in his list of manuscripts Paris, B. N. lat. 17296, an antiphoner with staff notation from St. Denis (Paris), probably written in the second quarter of the twelfth century. It was described by Dom Hesbert, who also transcribes its contents (text incipits); additional data is found, with corresponding discussion, in Anne Walters Robertson's book on St. Denis. The Parisian liturgical tradition represented by this source is however



independent of Cluny. See R.-J. Hesbert, *C.A.O.*, II: *Manuscripti "Cursus monasticus"*, Rome: Herder, 1965, xi-xv, pl. IX and comparative transcription (1-795). Id., *C.A.O.*, V, 14, 60, 84, 106, 130, 409, 416, 427, 440. Anne Walters Robertson [= Anne Elizabeth Walters], *The Service Books of the Royal Abbey of Saint-Denis: Images of Ritual and Music in the Middle Ages*, Oxford: Clarendon Press, 1991, 393-99 and pls. 13-14.

<sup>8</sup>Victor Leroquais, *Les bréviaires manuscrits des bibliothèques publiques de France*, 5 vols., Paris, 1934, V, 340-41.

<sup>9</sup>A. Davril, "A propos d'un bréviaire", 122.

<sup>10</sup>V. Leroquais, *Les bréviaires manuscrits*, I, 226-28. Dom Pierre Salmon, *L'office divin au Moyen Age. Histoire de la formation du bréviaire du IX<sup>e</sup> au XVI<sup>e</sup> siècle* [Lex orandi 43], Paris: Cerf, 1967, 73-74.

<sup>11</sup>Antoine Auda, *Étienne de Liège: L'école musicale liégeoise au X<sup>e</sup> siècle*, Bruxelles: Lamertin, 1923, 47.

<sup>12</sup>R. Steiner, "The Music for a Cluny Office"; id., "Reconstructing the Repertory"; id., "Marian Antiphons". Donat R. Lamothe and Cyprian G. Constantine, *Matins at Cluny for the Feast of St. Peter's Chains after the manuscript Paris, Bibl. nat. lat. 12601 (around 1075)*, London: The Plainsong & Mediaeval Music Society, 1986.

<sup>13</sup>Jacques Hourlier, "Le bréviaire de Saint-Taurin: un livre liturgique clunisien à l'usage de l'Échelle-Saint-Aurin (Paris B.N. lat 12601)", *Études grégoriennes*, 3 (1959), 163-73.

<sup>14</sup>J. Hourlier, "Le bréviaire de Saint-Taurin", 166. The calendar of Cluny has been published by H. Grotefend, *Zeitrechnung des deutschen Mittelalters und der Neuzeit*, 2/ii: *Ordenskalender. Heiligenverzeichnis*, Hannover: Hahn'sche Buchhandlung, 1898, 24-27; G. Valous, *Le monachisme clunisien*, I, 397-410; and Candida Elvert, *Clavis voluminum CCM VII/1-3* [CCM VII/4], Siegburg: Franz Schmitt, 1986, 21-32.

<sup>15</sup>R. Steiner, "Marian Antiphons", 180, 189.

<sup>16</sup>R. Étaix, "Le lectionnaire de l'office", 152.

<sup>17</sup>Monique Cécile-Garand, "Manuscrits monastiques et scriptoria aux XI<sup>e</sup> et XII<sup>e</sup> siècles", *Codicologica*, 3: *Essays typologiques*, Leiden, 1980, 8-33 [23-25].

<sup>18</sup>P. Salmon, *L'office divin au Moyen Age*, 74.

<sup>19</sup>J. Hourlier, "Le bréviaire de Saint-Taurin", 165.

<sup>20</sup>Id., 164, 168.

<sup>21</sup>Id., 167, 171.

<sup>22</sup>Cf. Jacques Hourlier, "Le domaine de la notation messine", *Revue grégorienne*, 30 (1951), 96-113, 150-58, and *Le Graduel romain. Édition critique par les moines de Solesmes*, II: *Les sources*, Solesmes: Abbaye Saint-Pierre, 1957, carte 2.

<sup>23</sup>As shown by the erased marginalia in the Amiens Sacramentary, Paris B. N. lat 9432, examined by Michel Huglo (personal communication, January 1997).

<sup>24</sup>M.-C. Lapeyre, *Atlas*. L. H. Cottineau, *Répertoire*.

<sup>25</sup>Ronald Thomas Olexy, "The Responsories in the 11th Century Aquitanian Antiphonal: Toledo, Bibl. Cap. 44.2" (Ph. D. dissertation, The Catholic University of America, 1980).

<sup>26</sup>*An Aquitanian Antiphoner: Toledo, Biblioteca capitular, 44.2. A CANTUS Index*, Ottawa: The Institute of Mediaeval Music, 1992.

<sup>27</sup>Pedro Romano Rocha, *L'Office Divin au Moyen Age dans l'Église de Braga. Originalité et dépendances d'une liturgie particulière au Moyen Age*, Paris: Fundação Calouste Gulbenkian, 1980. Id., "Influjo de los antifonarios aquitanos en el oficio divino de las iglesias del noroeste de la península", *Estudios sobre Alfonso VI y la Reconquista de Toledo. Actas del II Congreso Internacional de Estudios Mozárabes* (Toledo, 20-25 Mayo 1985), Toledo: Instituto de Estudios

- Visigotico-Mozárabes, 1990, vol. 4, 27-45. R. Steiner, "Introduction". Id., "Directions for chant research in the 1990s: The Impact of Chant Data Bases", *Revista de Musicología*, XVI/2, 1993, 697-705.
- <sup>28</sup>V. Leroquais, *Les bréviaires manuscrits*, II, 41-45.
- <sup>29</sup>M. Huglo, "Cluniac monks", 503-504.
- <sup>30</sup>V. Leroquais, *Les bréviaires manuscrits*, I, 17-20.
- <sup>31</sup>René-Jean Hesbert, *Corpus Antiphonarium Officii* [hereafter C.A.O.], V: *Fontes earumque prima ordinatio*, Rome: Herder, 1975, 5, 60, 84, 106, 130, 408, 411, 420, 424, 443, 458. Id., "Les matines de Pâques dans la tradition monastique", *Studia Monastica*, 24 (1982), 311-48.
- <sup>32</sup>John A. Emerson, "Sources, MS, §II", *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie, London, 1980, XVII, 609-34 [625].
- <sup>33</sup>Solange Corbin, *La notation musicale neumatique: les quatre provinces lyonnaises, Lyon, Rouen, Tours et Sens*, Thèse pour le Doctorat ès Lettres, Paris, 1957, vol. II, 376, cit. by André Renaudin, "Deux antiphonaires de Saint Maur (Paris B.N. Lat. 12584 et 12044)", *Études Grégoriennes*, XIII (1972), 53-150 [75-76].
- <sup>34</sup>A. Renaudin, "Deux antiphonaires", 109-11 (notation), 120-50 (edition).
- <sup>35</sup>R. Steiner, "Reconstructing the Repertory".
- <sup>36</sup>D. Lamothe and C. Constantine, *Matins at Cluny*.
- <sup>37</sup>Anselme Davril, "A propos d'un bréviaire manuscrit de Cluny conservé a Saint-Victor-sur-Rhins", *Revue Bénédictine*, 93 (1983), 108-22. Michel Huglo, "Remarques sur la notation musicale du bréviaire de Saint-Victor-sur-Rhins", *Revue Bénédictine*, 93 (1983), 132-36.
- <sup>38</sup>A. Davril, "A propos d'un bréviaire", 115.
- <sup>39</sup>R. Steiner, "Marian antiphons", 187.
- <sup>40</sup>Alexandre Olivar, *Els manuscrits litúrgics de la biblioteca de Montserrat*, Montserrat: Monestir, 1969, 23-25.
- <sup>41</sup>Grégoire M<sup>e</sup> Suñol, *Introduction à la paléographie musicale grégorienne*, Paris-Tournai-Roma: Desclée et Cie, 1935, 243 (plate 57).
- <sup>42</sup>R.-J. Hesbert, C.A.O. V, 11, 60, 84, 106, 130, 408, 411, 420, 424, 443. Id., "Les matines de Pâques".
- <sup>43</sup>Dom Pierre Blanchard, "Un bréviaire de Cluny", *Revue Bénédictine*, 57 (1947), 201-9. J. Hourlier, "Remarques", 232-33.
- <sup>44</sup>V. Leroquais, *Les bréviaires manuscrits*, II, 446-47.
- <sup>45</sup>P. R. Rocha, *L'Office Divin*, 20-21, 390, 396, 426, 432-33.
- <sup>46</sup>*Bibliothèque Nationale. Catalogue général des manuscrits latins*, II. Paris: Bibliothèque Nationale, 1940, 127: "En marge du fol. 51v, essais de plume et notice d'un prêt sur gage fait par Odo, abbé de Notre-Dame [de Cluny?] à Raynard, chevalier, fils d'Itier".
- <sup>47</sup>Bonifacio G. Baroffio, "I codici liturgici: specchio della cultura italiana nel medioevo", *Ecclesia Orans* 9 [1992], 233-276 [261n]).
- <sup>48</sup>L. Delisle, *Inventaire*, 1.
- <sup>49</sup>*Répertoire des manuscrits médiévaux contenant des notations musicales*, dir. Solange Corbin, 3 vols., Paris: C.N.R.S., 1965-1974, III: *Bibliothèques parisiennes*, par Madeleine Bernard, 181 and plates IX/X.
- <sup>50</sup>L. Delisle, *Inventaire*, 12-16.
- <sup>51</sup>M. Huglo, "Remarques", 133-35.
- <sup>52</sup>The monks of Solesmes in *Le Graduel Romain*, II, 121, date the volume from the beginning of the eleventh century; more recently, Bonifacio Baroffio regards it as having been copied in the tenth-eleventh centuries ("I codici liturgici", 261n).
- <sup>53</sup>J. A. Emerson, "Sources", 619. A full bibliography on this manuscript up to 1968

is found in "Censimento dei codici dei secoli XI-XII", *Studi Medievali*, 3<sup>a</sup> serie, IX (1968), 1115-94 [1146-47].

<sup>54</sup>Also in Roma, Bibl. Angelica 123 (Gradual from Bologna?, second quarter of the eleventh century); Nonantola, Bibl. del Seminario Abbaziale 1 (*Cantatorium* from Nonantola, c. 1100); Modena, B. Cap. O.I.7 (Gradual from Forlimpopoli/ Modena/ Ravenna?, end of eleventh century). The biblical text (Ps. 6, 2) is, in the Vulgate: *Domine ne in furore tuo arguas me neque in ira tua corripas me* (*Biblia Sacra — Iuxta Vulgatam Versionem, editio minor*, Stuttgart: Deutsche Bibelgesellschaft, 1984, 774).

<sup>55</sup>According to *Le Graduel Romain. Édition critique par les moines de Solesmes*, IV: *Le Texte neumatique/1: Le groupement des manuscrits*, Solesmes: Abbaye Saint-Pierre, 1960, 209-10, the manuscript Paris, B. N. lat 1087 (=CLU 1) is the closest source to Rome, Bibl. Casanatense 1907 (=ITI 1) in neumatic contour. The antiphonal *versus* are also characteristic: eight of them are found in only one other manuscript, Paris, B. N. lat. 12584, among forty-two sources used in B. Baroffio, "I versetti antifonici".

<sup>56</sup>René-Jean Hesbert, *Antiphonale missarum sextuplex*, Bruxelles, 1935, lxxix: "les manuscrits anciens [...] contenaient généralement, à la fin du cycle [des Dimanches après la Pentecôte], une liste d'alleluias *de circulo anni* constituant un répertoire assez considérable pour qu'on pût y puiser librement". See also Michel Huglo, "Les listes alléluïatiques dans les témoins du Graduel grégorien", *Speculum Musicae Artis — Festgabe für Heinrich Husmann zum 60. Geburtstag*, München: Wilhelm Fink Verlag, 1970, 219-27.

<sup>57</sup>R.-J. Hesbert, *C.A.O.*, II, xv-xvii, pl. X and comparative transcription (1-795).

<sup>58</sup>Michel Huglo, *Les tonaires. Inventaire, analyse, comparaison*. Paris: Société Française de Musicologie/Heugel, 1971, 112-15, 319.

<sup>59</sup>R.-J. Hesbert, *C.A.O.*, V; id., "Les matines de Pâques"; P. R. Rocha, *L'Office divin*.

<sup>60</sup>R. Steiner, "Reconstructing the Repertory".

<sup>61</sup>R.-J. Hesbert, *C.A.O.*, V, 14, 60, 84, 106, 130, 408, 411, 420, 424, 443. Id., "Les matines de Pâques", 316-20, 335-36.

<sup>62</sup>M. Huglo, *Les tonaires*, 115.

<sup>63</sup>P. R. Rocha, *L'Office divin*, 21, 390, 396, 398, 405, 407, 409, 422, 426-27, 432

<sup>64</sup>R. Steiner, "Marian Antiphons", 180 (note 9).

<sup>65</sup>S. Corbin, *La notation musicale neumatique*, 375, cit. by A. Renaudin, "Deux antiphonaires", 75-76.

<sup>66</sup>A. Renaudin, "Deux antiphonaires", 93-102.

<sup>67</sup>A. Renaudin, "Deux antiphonaires", 56, 118-19.

<sup>68</sup>Victor Leroquais, *Le bréviaire-missal du prieuré clunisien de Lewes*, Paris: Georges Andrieux, 1935.

<sup>69</sup>R.-J. Hesbert, *C.A.O.*, V.

<sup>70</sup>Stephen Holder, "The noted Cluniac breviary-missal of Lewes: Fitzwilliam Museum manuscript 369", *Journal of the Plainsong and Mediaeval Music Society*, 8 (1985), 25-32.

<sup>71</sup>Fols. 1 [14]r, 21 [34]v, 25 [38]r. A description of the historiated initials can be found in Francis Wormald and Phyllis M. Gilles, *A descriptive catalogue of the additional illuminated manuscripts in the Fitzwilliam Museum acquired between 1895 and 1979*, Vol. 1, Cambridge: Cambridge University Press, 1982, 370-74.

<sup>72</sup>V. Leroquais, *Le bréviaire-missal*, 17.

<sup>73</sup>S. Holder, "The noted Cluniac breviary-missal", 28-29.

<sup>74</sup>R.-J. Hesbert, *C.A.O.*, V, 6, 60, 84, 106, 130, 408, 411, 420, 424, 443.

<sup>75</sup>R. Steiner, "Marian Antiphons", 202.

<sup>76</sup>Personal communication (meeting at the Bibliothèque Nationale). Michel

Huglo also disclosed the title of his paper (not yet available to me): "The Cluniac Processional of Solesmes (Bibliothèque de l'Abbaye, Réserve 28", *Opus Dei: The Divine Office in the Latin Middle Ages. A Monograph in Honor of Professor Ruth Steiner*, ed. Margot E. Fassler and Rebecca Baltzer (in press).

<sup>77</sup>L. Delisle, *Inventaire*, 223-26. A detail of fol. 23 with musical notation can be seen in *Pierre Abélard - Pierre le Vénérable. Les courants philosophiques, littéraires et artistiques en Occident au milieu du XIIe siècle* [Actes et Mémoires du Colloque international], Paris: C.N.R.S., 1975, between pp. 6 and 7.

<sup>78</sup>A. Wilmart, "Le poème apologétique", 59-69. The *Benedicamus domino* melodies have been studied by M. Huglo, "Remarques", 133-35.

<sup>79</sup>J. Leclercq, *Pierre le Vénérable*, 379-90.

<sup>80</sup>A. L'Huilier, *Vie de Saint Hughes*, 621-23.

<sup>81</sup>Michel Huglo, "Les débuts de la polyphonie à Paris: les premiers *organa* parisiens", *Forum musicologicum - Basler Beiträge zur Musikgeschichte*, III, Winterthur: Amadeus Verlag, 1982, 93-163 [118 n., 146, 150-54].

<sup>82</sup>*Bibliothèque Nationale. Catalogue général des manuscrits latins*, I, Paris: Bibliothèque Nationale, 1939, 394-95, 545 [Errata].

<sup>83</sup>Heinrich Husmann, *Tropen- und Sequenzenhandschriften* [R.I.S.M. B V<sup>1</sup>], München, 1964, 123.

<sup>84</sup>J. Hourlier, "Remarques", 235-36.

<sup>85</sup>J. A. Emerson, "Sources", 615-16.

<sup>86</sup>*Le Graduel Romain. Édition critique par les moines de Solesmes*, IV: *Le texte neumatique /ii: Les relations généalogiques des manuscrits*, Solesmes: Abbaye Saint-Pierre, 1962, 64. Jacques Froger, "The critical edition of the Roman Gradual by the monks of Solesmes", *Journal of the Plainsong and Medieval Music Society*, 1 (1978), 81-97.

<sup>87</sup>Cf. *Le Graduel Romain*, II, 97.

<sup>88</sup>*Bibliothèque Nationale. Catalogue général*, I, 394. *Le Graduel Romain*, II, 97. J. Hourlier, "Remarques", 235. J. A. Emerson, "Sources", 615.

<sup>89</sup>Meyer Schapiro, *The Parma Ildefonsus. A Romanesque Illuminated Manuscript from Cluny and Related Works* [Monographs on Archaeology and Fine Arts, XI], New York: The College Art Association of America/The Art Bulletin, 1964, 3, 5, 33, 59-60.

<sup>90</sup>M. Schapiro, *The Parma Ildefonsus*, 6, 28.

<sup>91</sup>M. Schapiro, *The Parma Ildefonsus*, 5 (note 12).

<sup>92</sup>J. Vezin, "Une importante contribution", 317.

<sup>93</sup>M. Huglo, "Cluniac monks", 503.

<sup>94</sup>D. Hiley, "Ordinary of Mass Chants", 7.

<sup>95</sup>D. Hiley, "Cluny, sequences and tropes", 126 (note 2); id., "The Sequence Melodies", 137 (note 11).

<sup>96</sup>Cf. H. Grotefend, *Zeitrechnung*, II/ii, 26, 98; G. Valous, *Le monachisme clunisien*, I, 407; C. Elvert, *Clavis*, 29.

<sup>97</sup>Abbé F. Raillard, "Emploi des quarts de ton dans le chant de l'église", *Revue archéologique*, XV (oct. 1858 - mar. 1859), 487-91 and plate 345 [nov. 1858]. J. Hourlier, "Remarques", 236. M. P. Ferreira, "The Cluny Gradual", 211-215.

<sup>98</sup>J. Hourlier, "Remarques", 236.

<sup>99</sup>F. Raillard, "Emploi". Raillard's findings were forgotten for more than a century. In 1984, Michel Huglo remarked: "The clivis in the eleventh-century Gradual from Cluny [...] is frequently in the form of a Greek gamma at those points where Montpellier H 159 uses two symbols for microtones: those equivalent to x and z in Hansen". Since this comment was buried in a footnote to a book recension (F. E. Hansen's *The Grammar of Gregorian Tonality*, reviewed

in the *Journal of the American Musicological Society*, 37 (1984), 416-24 [421]), I would probably not become aware of it had not Michel Huglo stayed in Princeton's Institute for Advanced Studies during a whole academic year, thus allowing fruitful personal exchanges in whose absence the present dissertation would certainly have taken a different shape. I read Raillard's article only after Michel Huglo had awakened my curiosity and Kenneth Levy convinced me to face the microtonal problem, a problem which initially, for lack of courage, I avoided.

<sup>100</sup>D. Hiley, "Ordinary of Mass Chants"; id., "Cluny, sequences and tropes"; id., "The Sequence Melodies", 137-41, 148-51.

<sup>101</sup>Dom Hesbert, "Les témoins", 108-115.

<sup>102</sup>The F line is red, the C line, yellow. Letter-clefs are systematically used (F or C). Four dry-point lines were sometimes drawn.

<sup>103</sup>Michel Huglo, "Trois anciens manuscrits liturgiques d'Auvergne", *Bulletin Historique et Scientifique de l'Auvergne, publié par l'Académie des Sciences, Belles-Lettres et Arts de Clermont-Ferrand*, 77 (1957), 81-104 [92-100].

<sup>104</sup>Michel Huglo, "Les livres liturgiques de la Chaise-Dieu", *Revue bénédictine*, 87 (1977), 62-96, 289-348 [307n.]. Id., "Cluniac monks", 503.

<sup>105</sup>Personal communication (Fax message, October 1996).

<sup>106</sup>Perhaps further research on the obituary (entered on the last folio) may shed some light on the matter.

<sup>107</sup>J. Froger, "The critical edition". The manuscript was also used by Keith Allan Fleming, "The Editing of Some Communion Melodies in Medieval Chant Manuscripts" (Ph. D. dissertation, The Catholic University of America, 1979) and Jeffrey Wasson, "Gregorian Graduals of the First Mode: An Analytical Study and Critical Edition", 3 vols. (Ph. D. dissertation, Northwestern University, 1987).

<sup>108</sup>Victor Leroquais, *Les sacramentaires et les missels manuscrits des bibliothèques publiques de France*, 4 vols., Paris, 1924, I, 350-54 and IV, pl. XLII (with musical notation), XLIII and XLIV.

<sup>109</sup>Cf. *Le Graduel Romain*, II, 47.

<sup>110</sup>D. Hiley, *Western Plainchant*, 578. Hiley also includes in this category the manuscripts Paris, B. N. lat. 1132 (from Saint-Martial de Limoges), Douai, Bibl. Mun. 114 (from Marchiennes) and Valenciennes, Bibl. Mun. 121 (from Saint-Amand).

<sup>111</sup>Jean Dufour, "Les manuscrits liturgiques de Moissac", *Liturgie et musique* (IXe - XVe), Toulouse: Privat, 1982 [Cahiers de Fanjeaux, 17], 115-38 [121, 134], with bibliography.

<sup>112</sup>J. Hourlier, "Remarques", 237-39. The notation had been previously dated from the tenth century by V. Leroquais, *Les bréviaires*, 226.

<sup>113</sup>Personal communication (meeting at the Bibliothèque Nationale).

<sup>114</sup>V. Leroquais, *Les sacramentaires*, 178-180.

<sup>115</sup>Monique-Cécile Garand, "Le missel clunisien de Nogent-le-Rotrou", *Hommages à André Boutemy*, ed. Guy Cambier, Bruxelles: Latomus, 1976, 129-51 [especially 138, 140].

<sup>116</sup>*Paléographie Musicale*, III: *Le répons-graduel Justus ut palma*, 2<sup>e</sup> partie, Solesmes, 1892.

<sup>117</sup>J. Hourlier, "Remarques", 234.

<sup>118</sup>L. Delisle, *Inventaire*, 31-43 [32].

<sup>119</sup>J. Hourlier, "Remarques", 234.

<sup>120</sup>*Le Graduel Romain*, IV. R. Steiner, "Marian antiphons". M. P. Ferreira, "The Cluny Gradual".

**B.**

**CLUNY AND THE CHANTS FOR THE MASS**

C'est [...] par ses usages liturgiques  
que Cluny aura été un centre de  
rayonnement; par eux se sont répandues,  
largement, les mélodies chantées dans  
la grande Abbaye bourguignonne,  
assurant ainsi, pour une forte mesure,  
le triomphe des variantes "françaises".

Dom Jacques Hourlier, 1951

## CHAPTER 3

# THE GRADUAL OF CLUNY, PARIS B. N. lat. 1087, AND ITS MELODIC TRADITION

## 3. 1 WHAT'S IN A SOURCE?

## 3. 2 NOTATION: THE RHYTHMIC CONTENT

## 3. 3 RELATED CLUNIAC CODICES: THE DIATONIC CONTENT

## 3. 1 WHAT'S IN A SOURCE?

The Gradual of Cluny, Paris, B. N. lat. 1087 (siglum: Clu 1)<sup>1</sup> might at first appear to be less informative or significant than the sources on which most students of chant have traditionally focused their attention. Compared with the famous manuscripts from St. Gall and Einsiedeln in Switzerland<sup>2</sup>, Laon in north-eastern France<sup>3</sup>, or even Brittany<sup>4</sup>, the Cluny MS lacks their profusion of detailed rhythmic and dynamic indications<sup>5</sup>. Compared with the well-known codices from Aquitaine or Benevento<sup>6</sup>, the Cluny MS lacks their useful intervallic indications. Like other sources written in French neumes, it seems to convey almost no information besides the number of pitches in the melodies, their grouping and their melodic direction. It is thus quite

understandable why the Cluny MS has not received much attention from modern chant scholars.

In addition, because the eleventh-century Cluny Gradual is of later date than the most important St. Gall sources, it is easy to see the Cluny MS as representing a decline — a later, decayed state of a Gregorian tradition that had fallen away from the ancestral sophistication mirrored in the notational exactitude of the St. Gall MSS. But this idea is inaccurate. The detailed comparisons that will be presented in the course of this dissertation — comparisons made across a wide range of manuscripts — will show instead that some rhythmic details in the St. Gall sources depart from the most widespread tradition, and that some special characteristics of the St. Gall neumes represent a local or regional evolution. This suggests that the notational resources of the St. Gall MSS proceed not from an ancestral written archetype but rather from regional developments that emphasized the rhythmic features of the Gregorian melodies. The Cluny MS, far from portraying a later, more decrepit state of the repertoire represented by St. Gall, actually preserves a different regional tradition in which greater attention was given to the notational representation of minute tonal inflections. True, the manuscript also records some rhythmic shades; this little semiological information comes from a region and a notational family where this kind of information was believed to be entirely lacking. But most importantly, the particular notation in the Cluny Gradual systematically indicates minute tonal nuances which all but a handful of surviving medieval sources overlook. Among these few sources, the Cluny Gradual is not only the second oldest (after the Dijon Tonary,



Montpellier, Bibliothèque universitaire, H 159) but also, as I hope to demonstrate in Chapter 6 below, the most reliable one.

The lack of punctuation in early medieval texts, the absence of vowels in written Hebrew or the scarcity of accidentals in the notation of Renaissance music cannot be taken to deny the existence of pauses in the oral discourse, of vowel-sounds in spoken Hebrew or of *musica ficta* in composed polyphony. Conversely, we cannot say that the St. Gall rhythmic distinctions were not sung at Cluny, any more than we can say that the microtonal subtleties were unknown at St. Gall. Rather, each tradition represents progress toward a more precise neumatic notation — but the progress was made in different directions. Ultimately both neumatic developments were swept away by the adoption of the staff, as advances in music teaching produced a notation in which the highest priority was the exact indication of the diatonic pitch content, a process which had far-reaching consequences for Gregorian chant (see section 3. 3 below and also Chapter 4).

Besides being an important document on medieval Western chant in general, the Gradual of Cluny is also our main witness concerning the chants of the Mass as performed at the most famous and influential Benedictine abbey between the tenth and twelfth centuries. Yet, to apprehend the melodic content of these chants we need additional intervallic information, for which we do not have sources from Cluny itself. Manuscripts from closely related Cluniac priories with accurately pitched notation have to be used instead. Use of heightened notation implies however a translation of the earlier neumatic tradition into a fixed pitch system, which may be not

entirely adequate and may therefore induce the scribe to make subjective choices, change or edit the traditional melodies.

In fact, the shift to accurate pitch notation forced the scribes to face an issue that had not been a problem with the earlier neumatic notations. The use of lines with letter-clefs implied a strictly diatonic gamut that allowed half steps in only three places in each octave: between E and F, between B natural and C, and between A and B flat; each of these note-pairs could bear the syllables *mi* (for the lower note) and *fa* (for the upper note) in the Guidonian system of solmization, widespread in the later Middle Ages. Many melodies, however, appear to have originally had half steps at other points in the spectrum of pitches. This was not a problem in the early manuscripts, wherein the neumatic notation showed only the general melodic contour. But it became an issue when these melodies were retranscribed onto staff lines, so that exact pitches had to be indicated. The scribes of the diastematic MSS therefore adopted various strategies for handling these anomalous half steps, including: writing the whole melody in transposition, using the round b *fa* sign for pitches other than B flat, transposing sections of the melody, replacing or removing the problematic pitches, etc. Thus, when transpositions or certain other variants occur in Cluny-related diastematic MSS, comparison with a wider range of non-Cluny sources will often allow us to identify, among these cases, attempts to regularize or rectify these half steps that were now incompatible with the newer kind of notation. In other cases of divergence between the MSS, both the time elapsed between Clu 1 and the copying of the diastematic manuscripts, and the different origin of the latter, bring in a certain amount of

uncertainty in melodic reconstruction, unless indirect tonal indications (neumatic hints or modal assignments) are there to be taken into account.

In the process of trying to recapture the melodic content of the melodies sung at Cluny, we are thus offered a rare opportunity to observe the musical transmission of a central repertoire during the very period that shaped, through developments in musical theory and notation, the image of Gregorian chant for centuries to come. We will come across "displaced" semitones that can be seen as vestiges of an older layer of Gregorian musical tradition, "irregular" melodies which survived the impact of modal theory, and contradictory ways to come to terms with the newly required modal unity: a rare glimpse of music history in the making.

### 3.2 NOTATION: THE RHYTHMIC CONTENT

The Gradual of Cluny is historically important not only on account of the information it provides about musical practice at the Abbey, but also on account of its notational features. These, taken together with the testimony of other sources, throw new light on the oldest traditions of Gregorian chant with respect both to rhythm and tonal inflections.

The notation of this manuscript presents some characteristic graphic forms, like the normal clivis with an oriscus under the second note of the ligature, meaning a repetition of this note (Ex. 1); this is also found in the Gradual of Noyon<sup>7</sup> and the Missal from Tours, Paris B.

N. lat 9434, while most other French manuscripts present the oriscus beside the clivis<sup>8</sup>. At least as characteristic are the Lorraine-like clivis with low turn written under a normal clivis, meaning that the third pitch equals the second (Ex. 2a); and the liquescent variety of this neumatic group, represented by a loop with or without a decorative orange dot in its center (Ex. 2b). These forms convey only basic information about melodic contour; the manuscript manages, however, to be uniquely informative among sources in French notation through its use of modified neumes.

Thanks to the materials put at my disposal in the Solesmes Abbey, I was able to notice the rhythmical significance of the comma-like ending in the climacus, the trigon, and related forms (Ex. 3). This is not due to mere scribal habit, for the normal termination of these forms in the Cluny Gradual is a punctum. Comparison with manuscripts from St. Gall (GAL 1, MUR 3), Laon (LAN), Brittany (CHA 1) and Benevento (BEN 1) shows that when the last note of these neumatic groups looks like a comma, at least the last note, as in the offertory *Eripe me... Domine* (on *inimicis*)<sup>9</sup>, and sometimes the two last notes, as in the offertory *Super flumina* (on *Sion*)<sup>10</sup>, are longs. In this notation there is no specific way to represent two long final notes as opposed to only one long at the end. The word *altissime* in the gradual *Bonum est confiteri* may illustrate the double meaning of the comma (Ex. 4).

Comparative work also allowed me to observe that Cluny belongs to a rhythmical subtradition<sup>11</sup> which includes Brittany and has some relation to Laon, but is frequently at odds with St. Gall<sup>12</sup>. In different contexts, when Laon sides with Brittany against St. Gall, Benevento often supports the Laon/ Brittany version<sup>13</sup>. Agreement among

independent sources from different regions against St. Gall seems to imply that the latter does not record an original rhythmic version, as the centrality of the St. Gall MSS in modern chant research might be taken to imply, but that it rather represents a local or regional ninth-century deviation from the standard Carolingian way of singing, possibly related to the West/East split in the Gregorian musical tradition whose origins go back to the mid-ninth century<sup>14</sup>.

At a certain point, some of the notational families developed in the course of the ninth century came also to include tonal indications. The special *clivis* and *torculus* in the Cluny Gradual (Ex. 5) are the only known examples in French notation of neumes modified in order to record exceptional inflections. Abbot Raillard proposed in 1858 that they signal a microtonal interval; this Gradual would therefore rank as one of the rare sources to record what could be called the enharmonic dimension of chant<sup>15</sup>. This controversial issue will be discussed extensively in the final section of the dissertation (chapters 5 and 6).

### 3.3 RELATED CLUNIAC SOURCES: THE MELODIC CONTENT

#### 3.3.1

The Gradual of Cluny is notated *in campo aperto* with French neumes which, in spite of an embryonic diastematic tendency, do not convey precise information about pitches or melodic intervals. The copyist seldom notates the tone for the *seculorum amen* which follows the communion antiphons; the manuscript has some material gaps as well. Two other eleventh century manuscripts from affiliated monastic

houses can supplement its information or be of help to restore the original neumatic contour when missing: the gradual-antiphonary from St. Maur-les-Fossés (Paris, B. N. lat. 12584), or the slightly earlier, and more typically Cluniac Breviary-Missal from St. Salvatore del Monte Amiata (Roma, Bibl. Casanatense 1907)<sup>16</sup>. The testimony of these sources (especially the former) should be carefully weighted against later, diastematic manuscripts originating at Cluny or one of its priories.

Cluny used French unheighted neumes until at least the mid-twelfth century, and the ambiguity of this notational system allowed some fluctuation in the tradition. Reconstructing the melic substance of the chants sung at Cluny is therefore not as straightforward as one would wish; when the later sources from Cluniac priories disagree about pitch, there is often no way to know how the melody went at Cluny. The neumes provide some melodic clues (for instance, when a punctum is followed by a virga)<sup>17</sup> but these are only occasionally helpful. Fortunately, for the Introits (and eight communions)<sup>18</sup>, Clu 1 provides indirect modal assignments by the choice of tones for its verses<sup>19</sup>; it records their *incipit* and the *seculorum amen*. The Gradual-antiphonary of St. Maur-les-Fossés includes additional modal information on the communions<sup>20</sup>.

The system of psalm tones for introits and communions used at Cluny is presented in Ex. 6 (neumes of Clu 1) and also in Table I below, with pitches taken from the Gradual of Sauxillanges (Clu 2) and the Breviary-Missal of Lewes (referred to here as Clu 3). The letter-notation in Table I is intended to convey only intervallic information (no absolute pitch implied). Notes belonging to the same neume are

presented together. Since neumatic and diastematic evidence for the internal intonation can be put together only for tone VII, it is not included in the Table<sup>21</sup>. Mediant formulas whose neumatic contour in Clu 1 is lacking or incomplete are provided on the basis of total agreement between Clu 2 and Clu 3; the corresponding notes are presented in bold. B flat is written B, while B natural is written H. One should however take into account that a B which seems, on the face of written evidence, to be natural, may have been flattened in practice, depending on melodic context and performing tradition. When either B flat and B natural are given or implied in the same passage, the note given is that occurring in most cases, discounting the equivocal ones; the alternative note figures between curved brackets ( ), below. Descending liquescences are represented by the oblique stroke \ , ascending ones by /. Whenever the sources translate the liquescence by an equivalent note, this note is given between square brackets [ ], below. A quilismatic note is written in Italics, e. g. *E*. A note between oblique brackets < > , is hypothetical, for lack of an exact equivalent in the diastematic sources. The oriscus is signified by a: ʸ. Optional repeated notes (tenor) are represented by one or more horizontal strokes: — — — .

Introit	Tone	Intonation/Tenor	Mediant	formula	<i>Seculorum Amen</i>
I		F GA A———	AC A—— AG GA	A ACA G F FF FE D A ACA G F G' A [GA] A ACA G F FF FE DCD'E	
II		C D CF F——— or CDC CF F——	FE FG G F<G> F F G FD F E\ DED	[EC]	
III		G ACC———	H C D C—HA AC	C CCC AG A H\ G C CCC AG A H\ G'A	
IV		AG GA A———	AG GH H AH A	A A GF GA G\ E * [GF] A A GF GA G\ FGF F'G **	
V		F AC———	D C C	C C D H C\ A (B) C C D H C\ AG AGF G ***	
VI		FG GF GA A———	G H A GF F	F G FD F<G> G\ F F G FD F<G> G\ FF GAG ****	
VII		CH CD D———	DEF E ED DE	D DEFE D C CC CH AG D DEFE D C CC CH <A> D DEFE D C D' D***** [DE]	
VIII		G A GC C—— G A<G> GCC—	CH CD D CD C	C CCH GA CH A\ G [AG]	

Table I



\* The final note is always E in Lewes but Clu 2 gives E only twice: it tends to have a final F instead.

\*\* Clu 1 uses this contour only for *Misericordia*, *Reminiscere* and *Resurrexi*. Since Clu 2 and Clu 3 coincide in giving a corresponding formula only in the introit *In voluntate*, it may be doubted that the later sources give us here a melody from Cluny. The primitive ending may also have been EGF E $\gamma$ F or FGF E $\gamma$ F.

\*\*\* Formula reserved to *Circumdederunt* in all three sources.

\*\*\*\* Only in *Os iusti* and *Quasi modo*.

\*\*\*\*\* Only in *Populus Syon* and *Deus in loco*.

Cluny was, in the eleventh century, comparatively austere in the number and melismatic elaboration of the *differentiæ* for the Introit tones. There are, for instance, five terminations for mode 1 and two for mode 8 in both the Albi-Gaillac Gradual (Paris, B. N. lat. 776) and the Tonary of Odorannus of Sens<sup>22</sup>, whereas Cluny has three and one, respectively. The melodic austerity can be easily seen by comparing Cluny's *differentiæ* for mode 3 with those found in the eleventh century Tonary from Toulouse, with their florid *amen*<sup>23</sup>. This austerity is coherent with the liturgical orientation of the Mass, discussed above (1.3).

Cluny's modal assignments for Introits which, in the larger Gregorian tradition, have been classified differently or modified to fit developments in musical theory are given in Table II below<sup>24</sup>. Those Introits whose assignment conflicts with the standard one (i. e. that proposed in the Vatican edition of the Gradual) are presented in bold. The Vatican assignment (siglum: V) and the testimony of the ancient tonaries as given by Michel Huglo (siglum: T)<sup>25</sup> are also given for comparison; the mode found in most tonaries is given first, alternative assignments appearing inside brackets.

Accipite iucunditatem	4		
De necessitatibus meis	4		
<b>Deus, dum egredereris</b>	8	V: 3	T: 3 (8)
Deus in adiutorium	7		
<b>Deus in loco</b>	7	V: 5	T: 5 (7)
Dicit Dominus: Ego	6		
Dicit Dominus Petro	4		
Dicit Dominus: Sermones mei	1		
Eduxit Dominus	7		
Ego autem cum iustitia	1		
Ego autem in Domino speravi	1		
Ego autem sicut oliva	3		
Exaudi, Domine ... alleluia: tibi dixit	1		
Exsultate Deo	6		
In virtute tua ... iustus	7		
Intret in conspectu tuo, Domine	4		
<b>Iudica, Domine</b>	7	V: 4	T: 4 (7)
Iudica me, Deus	4		
Iustus ut palma	1		
<b>Me expectaverunt</b>	5	V: 2	T: 2 (5)
<b>Miserere mihi ... ad te</b>	5	V: 8	T: 8 (7)
<b>Miserere mihi ... conculcavit</b>	1	V: 3	T: 3 (1)

Miserere mihi ... tribulor	5		
Nunc scio vere	3		
Omnis terra	4		
Populus Syon	7		
Probasti, Domine	7		
Protector noster	4		
Redime me	2		
Sacerdotes Dei	6		
<b>Sacerdotes tui, Domine</b>	4	V: 3	T: 4 (3)
Sancti tui	3		
<b>Victricem manum</b>	3	V: 8	T: 3 (8)

TABLE II

Among the Introits presented in bold, only *Iudica Domine*<sup>26</sup>, *Miserere...conculcavit*<sup>27</sup> and *Sacerdotes tui*<sup>28</sup> are found with the Cluny tones in both Clu 2 and Clu 3. *Deus in loco*<sup>29</sup> corresponds to Cluny only in Lewes, *Me expectaverunt*<sup>30</sup> and *Miserere...ad te*<sup>31</sup> only in Sauxillanges. In *Deus, dum egredereris*<sup>32</sup> and *Victricem*<sup>33</sup>, Cluny remains alone.

*Deus in loco* in the Lewes manuscript is written at the end (over *plebi suæ*) a second above the Vatican edition; it has therefore a G final. It may also be significant that the intonation, after establishing the C tenor, first rests on G, before arriving at the low F which allows the singer to relate the piece to the fifth mode. The seventh-mode recension of Clu 1/Clu 3, shared by the Dijon tonary and the most conservative Aquitanian manuscripts and supported by both the Metz tonary and the gradual of Mont-Renaud<sup>34</sup>, may well be the primitive one<sup>35</sup>.

*Iudica Domine* differs significantly from the Vatican edition only at the end, over *meæ*: in context, it ends a third below the Vatican version (wherein the final is E), but since the Introit is written in both Lewes and Sauxillanges a fifth above, it ends on G. The Cluny version, not the Vatican one, corresponds to the neumatic contour found in the earliest sources; the G final is supported by the testimony of Regino of Prüm, who nevertheless classifies the piece in fourth mode on account of its intonation<sup>36</sup>.

The Cluniac version of *Miserere mihi... conculcavit* ends on D. [*tribula*]vit me is written a second below the Vatican edition. This version, with the corresponding first mode assignment, is supported by the tonary of Odorannus of Sens, the Sacramentary-Lectionary of Saint-Denis (ms. Laon 118), the Dijon tonary, Benevento VI-34, the central Italian Missal Firenze, Bibl. Laurenziana, Ashburnham 61, and the manuscripts of Prémontré; the Franciscan version is different from those just mentioned, but it, too, ends on D, with basically the same melody sung at Cluny over *tribulavit me*<sup>37</sup>. Although most manuscripts and medieval theorists favor an E final instead, the less logical first-mode ending derives in all probability from tradition and not from theoretical initiative<sup>38</sup>.

*Miserere... ad te* is a complex piece<sup>39</sup>. It does not display the low tetrachord D - G typical of the Tetrardus plagal, nor does it use the high D as a recitation tone, as a Tetrardus authentic melody tends to do. The intonation is the same as in the fifth mode introit *Miserere... tribulor*. The Cluniac version of this opening (Clu 2 and Clu 3 coincide here) has a clear fifth mode character, by having A and F at *Miserere m ihi*, respectively, instead of the two Gs found in the Vatican edition.

The second phrase explores the characteristic Tritus polarity between the low F and c, although the low G wins at the end. Then a whole phrase in Deuterus follows: The c is finally re-established as the main tenor note, but the G has almost no time to make its presence felt again before Clu 2, over *[invo]cantibus te*, chooses to go a second below the Vatican version and terminate on F, previously prepared by a B flat over *miserordia*. This kind of mutation or "modulation" is frequent in Tritus authentic; B flat is also found in Lewes at this point (actually, already at *in misericordia*). Both intonation and final in the Sauxillanges MS could thus justify Cluny's assignment to the fifth mode. The melodic version in the Lewes MS, although not as coherent, is still compatible with Cluny's modal assignment on account of the intonation. It is much likelier that the editor of Clu 2 (or its model) changed the final cadence in order to make it agree with the first part of the melody, than that Clu 3 transformed a slightly ambiguous Tritus introit antiphon into a clearly incoherent whole which closely corresponds to the more traditional version of the melody. Given that (as will be argued below) Clu 2 tends to innovate in problematic pieces, the melody sung at Cluny, in spite of the apparent correspondence between Clu 1 and Clu 2, may in fact have been closer or even identical to the Lewes version.

In *Me expectaverunt, Sacerdotes tui*, and also presumably in *Deus, dum egredereris* and *Victricem*, Cluny presents an implicit modal classification which contrasts with that in the *Graduale Romanum*, not because it adopts a different melody, but because the Cluny monks took into consideration the modal character and melodic register announced by the intonation rather than the final note.

*Sacerdotes tui* does not go below the sub-final (D), but the intonation establishes the tetrachord around the final with particular emphasis on the F immediately above it, something which seems to have led the theorists who compiled the earliest tonaries to attribute a plagal quality to this piece. The fourth mode assignment is also shared by the Saint-Denis/ Corbie/ Winchester tradition and St. Pierre-le-Vif at Sens<sup>40</sup>.

There is not a single F (the final note in Tritus) in the Sauxillanges recension of *Me expectaverunt*; but the intonation, firmly presenting a c tenor with a lower auxiliary a, clearly recalls mode five; the structural fourth which dominates the middle of the piece, being modally ambiguous, does not contradict it<sup>41</sup>. The Lewes MS writes the melody a fifth lower, which is coherent with a second mode assignment.

*Deus dum egredereris* has a typical eighth mode beginning (structurally equivalent to that of the communion *Venite post me*) but also a clear mode three ending, testifying to the close relationship among pieces usually classified under modes three and eighth<sup>42</sup>. Cluny's eighth mode assignment is also found in Regino of Prüm and in the Saint-Denis/ Corbie/ Winchester tradition<sup>43</sup>.

The relationship between pieces classified in modes three and eight is confirmed by *Victricem manum*, which has a typical third mode intonation (structurally equivalent to that of the offertory *Sperant in te*), a middle section with a fourth mode *alleluia* followed by passages with range and main recitation tone common to the third and eighth modes, and, at the end, cadence formulas typical of the eighth mode<sup>44</sup>. The introit tone for *Victricem* in the Graduals Einsiedeln

121 and Chartres 47 also corresponds to the third mode, a choice supported by most early tonaries (including those of Metz and Regino of Prüm) and adopted in the Rodrade Sacramentary and in Winchester<sup>45</sup>.

The theoretical leaning in Clu 1 towards basing modal assignments on intonation rather than final alone is characteristic of an early approach to modality: it was already out-of-fashion in the eleventh century<sup>46</sup>. The behavior of Clu 1 and the corresponding diastematic versions in the Introits allows us to conclude that Cluny was very conservative in what concerns both modal assignment and melodic reading of problematic pieces. This conservatism, already suggested by the care to record in writing minute vocal inflections about to be lost elsewhere, the austerity of the *differentiae* for the Introit tones and the late adoption of the staff, agrees with the monastic traditionalism of Cluny (of which its archaic system of invitory tones is another symptom<sup>47</sup>), and is confirmed by the general melodic orientation of the Gradual, of which more will be said below.

### 3. 3. 2

I have concentrated so far on Clu 1, using Clu 2 and Clu 3 to clarify its modal clues; much more can however be gleaned from these sources if we ignore modal classification and examine the melodies directly. Since it would have been both unfeasible in the context of this dissertation, and ultimately unproductive, to compare Clu 1, Clu 2 and Clu 3 along the whole repertory, the comparison was restricted here to those chants found therein which pose special problems in

transmission or modal assignment, a rich sample of more than fifty melodies (listed below) which provides a severe test on the degree of uniformity found in a given liturgical tradition<sup>48</sup>. Different chant traditions, even different churches or monasteries in the same region, often present different versions of these pieces; nearly absolute agreement will be found only in manuscripts belonging to the same church or to a strictly centralized order (originated in the twelfth century or after). Comparison of problematic pieces can also tell us to what extent melodic reconstruction of the Cluny Gradual is safely attainable.

#### PIECES COMPARED

**Introits:** *Accipite, Deus dum egredereris, Deus in loco, Eduxit Dominus, Exaudi... tibi dixit, Exsultate Deo, Iudica Domine, Me expectaverunt, Miserere... ad te, Miserere... conculcavit, Nunc scio, Sacerdotes tui and Victricem manum.*

**Graduals:** *Benedicam Dominum, Diffusa est gratia, Domine prævenisti, Ego dixi, Qui sedes and Speciosus forma.*

**Alleluias:** *Christus resurgens, Dexteræ Dei, Omnes gentes and Veni Domine.*

**Offertories:** *Erit vobis, Exsulta satis, Factus est Dominus, Filiæ regum, In die solemnitatis, In virtute tua, Inveni David, Iubilare Deo omnis, Iustitiæ Domini and Tollite portas.*

**Communions:** *Amen dico... quod uni, Aufer a me, Beatus servus, Cantabo Domino, Cantate Domino, Christus resurgens, Circuibō, De fructu, Dicit Dominus: implete, Domine quinque talenta, Domus mea, Dum venerit, Ego clamavi, Ego sum pastor, Mense septimo,*



*Pacem meam, Passer invenit, Quod dico vobis, Spiritus ubi vult,  
Tollite hostias and Tu mandasti.*

Comparison between Clu 1, Clu 2 and Clu 3 in these pieces reveals, as expected, both agreements and disagreements. The significance of these particular agreements and disagreements is, however, not immediately apparent. To interpret them, we have to know what is at stake in each piece, and be able to distinguish between different kinds and degrees of divergence.

Disagreement may of course occur as a result of a copying error; safe identification of a copying error supposes, first, that the resulting passage runs against the manuscript tradition, and secondly, that it can be easily explained away. Choosing the wrong line to write a neume at the beginning of a new system, or jumping over a neume because the following one looks the same as the preceding, are typical cases. Safely identifiable copying errors are fortunately rare in our sources<sup>49</sup>.

Divergence may also occur because one of the diastematic manuscripts deviates from the Cluny tradition. Often it is not possible to tell which source has more claims to authenticity, e. g. a punctum between two A virgæ may well be either G or F, and since Clu 1 can not help us here, we do not know which note is the right note. There are cases, though, where it is clear which source is the closest to Cluny.

In their preparatory work for the critical edition of the Gregorian Gradual, the monks of Solesmes chose as the closest diastematic source to Clu 1 the Gradual of Sauxillanges (Clu 2)<sup>50</sup>. This manuscript has three important qualities: the close connection with Cluny, its relatively early date and the inclusion of offertory verses. Comparative

work has convinced me, however, that the Breviary-Missal from Lewes (Clu 3) is often, in spite of its later date, a more trustworthy source. In the communion *Tu mandasti*, for instance, both manuscripts write the piece in fifth mode (with B flat)<sup>51</sup>; but over *nimis ... dirigentur* Clu 2, unlike Clu 3, deviates from the neumatic contour found in Clu 1. In the introit *Nunc scio vere*<sup>52</sup>, Clu 2 deviates from Clu 1 at six different points, while Clu 3, besides an extra note (which probably translates a liquescence) differs from Clu 1 only in keeping a B natural which in the older source seems to have been already raised to a C. In most pieces where Lewes and Sauxillanges disagree we can not be so sure about which manuscript is closer to the version sung at Cluny, but the evidence often points to a version equivalent to that found in Lewes rather than Sauxillanges. Thus, in the Alleluia *Veni Domine*<sup>53</sup> (also sung with the *Vl. Adducentur*<sup>54</sup>, *Paratum cor*<sup>55</sup> and other texts), the neumatic contour of Clu 1 corresponds exactly to Clu 3, while Clu 2 shows a number of variants. This piece is characterized by a mixture of Deuterus and Protus modality, present respectively in the alleluia *jubilus* and the verse. Lewes has the traditional melodic version with both *jubilus* and verse ending on A (first with B flat, then without), while Clu 2 adopts the same solution found in the modern *Graduale Romanum*: final E for the Alleluia, D for the verse<sup>56</sup>. Given the divergences in contour between Clu 1 and Clu 2, we are led to suspect that Lewes is closer to the original Cluniac version. I have also come across a number of instances where disagreement between Clu 1 and Clu 2 reveals a certain musical evolution reflected in the latter manuscript, a conclusion confirmed by comparison with Clu 3.

The communion *Pacem meam* is found, besides in Clu 1, Clu 2 and Clu 3<sup>57</sup>, also in the early thirteenth century fragment of a Cluny Missal, Paris B. N. nouv. acq. lat. 1436 (p. 729). The neumatic contour of the Cluny Gradual corresponds to the smallest detail to that of the Cluny Missal. Lewes disagrees only in two liquescences, and presents the same melodic content as that of the Cluny Missal. Sauxillanges, besides normal disagreement over liquescences, compresses three notes found in succession on the same pitch (but belonging to three different neumes) into a single note. It also transposes down the second half of the piece; this transposition, however, may be just an alternative to writing a b flat (as do both the Cluny Missal and Lewes), and have therefore no implications in actual performance (i. e. the written tonal shift could have been ignored by singers who had memorized the piece). In the manuscript tradition of this melody transposition is however a rare procedure, found so far only in Saint-Martial de Limoges and Montaire (Evreux)<sup>58</sup>. In short: in this communion there seems to be substantial agreement among the Cluniac sources (depending on how we interpret the transposition), but Clu 2 uses crasis in repeated notes, a kind of simplification generally found in late manuscripts. In the Introit *Miserere mihi ... conculcavit* and in the communion *Christus resurgens*, the semitonal salicus in Clu 1 appears translated by a semitonal pes in Lewes, while Clu 2 has a repercussed F or C, another clear sign of melodic decay<sup>59</sup>. The tendency to raise *mi* to *fa* is however not new: the upper resolution of the semitonal salicus occurs already in Clu 1, for instance in the communion *Dum venerit*<sup>60</sup>.

So far, the evolutionary aspect of Clu 2 seems to be restricted to a few details, but the evidence collected indicates that the modifications sometimes also concerned melodic substance. I have already discussed the introit *Miserere... ad te*, where Clu 2 tries to achieve modal coherence through partial transposition. The case of the communion *Cantabo Domino* is also telling in this respect. The Breviary-Missal of Lewes has the closest diastematic version to the neumes of Clu 1 (which basically coincide with those in the antiphonary-gradual from St. Maur-les-Fossés)<sup>61</sup>. St. Maur gives a fifth mode *seculorum amen* (suggested by the intonation), but classifies the tune as second mode. Lewes has a second mode *seculorum*. While Clu 3 presents the standard melody (transposed a fifth higher to accommodate the E flat as B flat), Clu 2 chooses to raise the introductory phrase one whole-step (E flat is made equivalent to F), thus simplifying the modal structure of the piece. This procedure, incompatible with a virga over *tribuit* in Clu 1, is also found in the Gradual from Saint-Yrieix, whose reforming tendencies have been put into evidence by Nicholas Stuart<sup>62</sup>. It is perhaps significant that Saint-Yrieix, in one of the *differentiæ* for the fourth Introit tone, often betrays a preference for F instead of the more traditional E<sup>63</sup>; Clu 2 knows only the F final, ignored by Clu 3. Given the geographic proximity of the Clermont diocese and the Limousin, and the fact that Clu 2 is written in Aquitanian notation, one is led to suspect that there has been some influence here from non-Cluniac chant traditions.

There are other cases where Clu 2 seems to have been influenced by non-Cluniac editors, especially those from Aquitaine. I have already referred to the transposition in the communion *Pacem meam*, also

known in Saint-Martial de Limoges. In the introit *Deus in loco*, Clu 2 follows the reading adopted in Saint-Yrieix and Narbonne, with final F (more coherent with the Tritus opening than the G favored by Cluny/Lewes)<sup>64</sup>. In the communion *Amen dico vobis quod uni*<sup>65</sup>, Clu 2, like Saint-Yrieix, avoids the insistence on the modally irregular B flat between *venite* and *initio* through transposition<sup>66</sup>. In the offertory *Filiæ regum*, Clu 3 presents what seems to be the traditional version ending on E, while Clu 2 follows many Aquitanian sources (but also Reims and Benevento) in choosing an F final<sup>67</sup>. Finally, in the communion *Dicit Dominus: Implete*, modal ambiguity leads Clu 2 to raise by a major second the music for *dicit sponso* and the final phrase, over *coram discipulis suis*. This communion was also similarly reformed in Saint-Yrieix (transposition up a second from *signum* to the end) and a few other places<sup>68</sup>. At Cluny, either it was thought of as a third mode piece ending on G (with a couple of C sharps), as in St. Maur-les-Fossés, or as a sixth mode piece with final F (with B flat most of the time), as in the Lewes manuscript<sup>69</sup>.

In the introits whose modal assignment in Clu 3 differs from that found in Clu 1, Lewes changes only the psalm tone, not the antiphon. I found no examples of pieces where Lewes chooses to follow, on its own, an evolutionary melodic path. In what concerns melodic detail Lewes is not always conservative, however (for instance, repercussed notes are often found where Clu 1 had a salicus), nor it is in every instance preferable to Clu 2. In the Alleluia *Omnes gentes*, Clu 2 follows Clu 1 very closely, while Lewes introduces a few minor variants. Both manuscripts agree in general intervallic content, in spite of the fact that this piece is found in different transpositions. The

scribe of Clu 3 avoided writing an E flat in the verse by transposing the whole piece a fifth above the normal first mode register. Clu 2 keeps this register in the jubilus, but transposes the verse a second above (E flat is thus made equivalent to F). The transposition is however only apparent — a writing convenience — for the melody of the jubilus, repeating itself at the end, would sound then a second higher, implying F sharps had the repeat been fully written. The melodic version sung at Lewes and Sauxillanges (and thus presumably at Cluny) has incidentally more claims to historical ancestry than the version adopted in the modern Vatican edition<sup>70</sup>.

The main reason behind extensive melodic divergence between Clu 2 and Clu 3 is the presence in the repertory of degrees which are not supposedly part of the diatonic scale, as it was conceived by most medieval theorists. Both manuscripts manage to retain, through transposition, the low B flat in the communion *Tollite hostias*<sup>71</sup>, the E flat in the gradual *Diffusa est gratia*<sup>72</sup>, and the F sharp in the communion *Beatus servus*<sup>73</sup>. In at least ten other melodies, however, E flats and F sharps (or "displaced" semitones) are the hidden source of contention. These pieces are: the introit *Exsultate Deo*<sup>74</sup>; the gradual *Speciosus forma*<sup>75</sup>/*Exsurge... fer opem*; the alleluia *Christus resurgens*<sup>76</sup>; the offertories *In die sollemnitatis*<sup>77</sup> and *In virtute tua*<sup>78</sup>; the communions *Aufer a me*<sup>79</sup>, *Circuibo*<sup>80</sup>, *De fructu*<sup>81</sup>, *Ego clamavi*<sup>82</sup> and *Passer invenit*<sup>83</sup>. Transposition allows Clu 3 to keep the problematic intervals in the alleluia *Christus resurgens*, the offertory *In virtute tua* and in the communions *Circuibo*, *De fructu*, *Ego clamavi* and *Passer invenit*, while Clu 2 retains only one, in the introit *Exsultate Deo*. The

divergence between Clu 2 and Clu 3 in the communion *Ego sum pastor* may also be related to the occurrence of a "displaced" semitone<sup>84</sup>.

The occurrence of different melodic readings for these pieces, is closely tied to the advent of diastematic notation and the need to relate every single melodic structure to a theoretically constructed and acknowledged scale. Dasia notation, conceived by ninth century authors for discussion of liturgical chant, included equivalents to the low B flat and to the high F sharp and C sharp<sup>85</sup>; the anomalous use of the low F sharp and also of E flat is however not excluded<sup>86</sup>. The Boethius-inspired diatonic scale adopted by most medieval theorists from Hucbald onwards ignored these "chromatic" degrees, although B flats were provided in the medium and high range<sup>87</sup>. Theinred of Dover admitted the B flat, the E flat and the F sharp in all registers either as regular tones or as a result of relocation of the semitones<sup>88</sup>. Such divergences concerning the definition of the scale are symptomatic of a certain tension between systematic theory and musical practice, a tension that could be ignored by singers only in so far as they did not need to name every single note by reference to a monochord, i.e., only while unheighted neumes were in use. The fact that the Lewes and Sauxillanges MSS tended to confront "displaced" semitones differently does not imply any instability in the musical tradition at Cluny itself, since diastematic notation, as far as we can tell on the basis of the surviving MSS, was not adopted there before the second half of the twelfth century<sup>89</sup>; but it makes it clear that, in the absence of central guidelines of a theoretical nature, musical uniformity in the Cluniac priories was threatened by the new

notational technology, and was to some extent sacrificed by its free adoption.

Modally ambiguous pieces which, as far as we know, do not use "displaced" semitones tend to exhibit agreement between Clu 2 and Clu 3, despite the fact that the larger manuscript tradition is far from showing unanimity. The offertory *Erit vobis* seems to be the exception that confirms the rule<sup>90</sup>. There is substantial agreement in the offertory *Tollite portas*, in spite of the unexpected modulation at the end<sup>91</sup>. There is also agreement in the offertory *Inveni David*<sup>92</sup> and in the communions *Domine quinque talenta*<sup>93</sup> and *Domus mea*<sup>94</sup>, in spite of modally irregular intonations. More importantly, there is agreement in all the following melodies, noted for their modal ambiguity: the introits *Accipite iucunditatem*<sup>95</sup>, *Eduxit Dominus*<sup>96</sup>, *Iudica Domine* and *Miserere... conculcavit*; the graduals *Benedicam Dominum*<sup>97</sup>, *Domine prævenisti*<sup>98</sup> and *Ego dixi*<sup>99</sup>; the alleluia *Dextera Dei*<sup>100</sup>; the offertories *Exsulta satis*<sup>101</sup>, *Factus est Dominus*<sup>102</sup> and *Iustitiæ Domini*<sup>103</sup>; and finally, the communions *Christus resurgens*<sup>104</sup>, *Dum venerit, Mense septimo*<sup>105</sup>, *Pacem meam* and *Quod dico vobis*<sup>106</sup>. Cluny seems thus to have been quite content with its musical heritage, notwithstanding the theoretical shortcomings of these tunes.

There are only a few cases where Clu 2 and Clu 3 agree on melodic versions which imply a theoretically motivated revision. The gradual *Qui sedes* avoids, at the end, the traditional but irregular plunge into the plagal area of the Tetrardus<sup>107</sup>. The communion *Cantate Domino*, written with final D, avoids the unwarranted low B flat and the E flats over *salutare eius*<sup>108</sup>. The communion *Spiritus ubi vult* has two internal cadences (on *alleluia et* and *venia t*) modified to conform



with the final G cadence<sup>109</sup>. Given the range of possible melodic modifications compatible with developments in musical theory, the coincidence of Clu 2 and Clu 3 strongly suggests that these revisions depend on a common source: Cluny itself. However, all these solutions are common to the Gradual of Saint-Yrieix. Could Cluny have inspired the Aquitanian editor, or is the opposite more likely? There is evidence of Aquitanian musical influence at Cluny concerning the chants for both the office<sup>110</sup> and the Mass (sequences, Kyriele); not, however, of influence in the opposite direction. Aquitanian influence could easily have reached Cluny through an affiliated monastery or one of its priories in the Clermont diocese, where, as demonstrated above with reference to Clu 2, the Cluniac cantors were willing to adopt reformed melodies. We have seen that Cluny can be shown to be conservative (notation, choice of introit tones, melodic versions), whereas no clear signs of innovative tendencies before the twelfth century have surfaced so far. Thus, in spite of the tendency to presume that Cluny was influential in all aspects of the liturgy<sup>111</sup>, the thrust of the influence is more likely here to have come from the southwest. If modal theory at Cluny had a practical role beyond that called forth by the teaching and replication of the repertory, it may have been valued more as an ideological tool, useful to render legitimate a melodic version imported from a priory or affiliated monastery, than as a compositional or editorial guide.

The communion *Spiritus ubi vult*, referred to above, provides additional evidence for outside influence (Ex. 7). We have seen that both Clu 2 and Clu 3 have two internal cadences modified to conform to the final cadence on G. The fragment of a noted Missal from Cluny

confirms that these cadences were also known in their modified form at the mother Abbey<sup>112</sup>. The fragment diverges from the Cluniac priories, however, in the first and final cadences. The first cadence is changed, against the neumatic contour of Clu 1, to end on G as well. This kind of change could have been justified by a G final at the end of the piece, but the last cadence in the fragment ends surprisingly on F (with B flat). Two incompatible tendencies seem to be at work here: a tendency to view this piece as a fifth mode melody (F ending), and a tendency to reform it to fit it into the eighth mode (G cadences). Although in the Missal the final phrase is extended against the contour of Clu 1, the F ending is compatible with it; F only makes overall musical sense, however, if the three initial internal cadences are restored to their presumably original form, with endings on F, A and A. The final F cadence may therefore be a survival, or more likely a late vindication, of the version primitively sung at Cluny. There is some indirect evidence for this version: the modal indications given by the Gradual-antiphony of St. Maur-les-Fossés<sup>113</sup>. This manuscript classifies the communion in the fifth mode, and gives the psalm tone corresponding to the sixth mode. Against this Tritus version, the tendency to classify this piece as Tetrardus plagal (as evidenced in the Lewes manuscript) has precedents in the northern French tradition<sup>114</sup>, but by the time diastematic notation was adopted at Cluny, it was allowed there to influence only internal cadences (on *alleluia et* and *veniat*, then also on *spirat*). This may have occurred either because the modified version was never fully accepted at Cluny, or because the editor of the hypothetical Gradual from which the Cluny Missal took the melodies tried to be faithful to a traditional Tritus assignment,

while keeping the internal cadences — deemed secondary for purposes of modal classification — as he remembered them. It follows that there was disagreement at Cluny about this communion; since the tendency to treat it as a Tetrardus piece, and change it accordingly, was successful in the priories but resisted to some extent at Cluny, it must represent an outside trend.

The intonation of the introit *Exaudi... tibi dixit* seems to have been sung at Cluny in a revised form as well, for both Clu 2 and Clu 3 present it as EF DF F instead of EF DG G (transposed a fourth above, to avoid the F sharp)<sup>115</sup>. But since there was no particular reason to change the intonation at Cluny before the staff was adopted there in the second half of the twelfth century, it is once more probable that this innovation, adopted in Sauxillanges in the early twelfth century, was imported from a priory.

Cluny tends not only to keep the melodies in their traditional form, as we have seen, but also to keep small regional variants which probably crept in during the ninth century, before Cluny was founded. These variants are both of the neumatic type, taken into account by the monks of Solesmes in their preparatory volumes for the critical edition of the *Graduale*<sup>116</sup>, and of the melic type, i. e. only detectable in diastematic sources.

Thus, the intonation of the introits *Miserere...ad te*, *Misericordia*<sup>117</sup>, *Reminiscere*<sup>118</sup> and *Salus populi*<sup>119</sup> have a characteristic neumatic shape —and melodic content —in the Cluniac manuscripts (Ex. 8)<sup>120</sup>. The passage *tabernaculis*, in the communion *Mense septimo*, diverges from the most common version (Ex. 9)<sup>121</sup>. The entire communion *Quod dico vobis* was also sung at Cluny with a striking

contour. In addition, there are passages whose melodic content does not coincide with that found in most other sources, for instance the B naturals over *servum*, in the offertory *Inveni David*. The communion *Christus resurgens*, usually classified in the eighth mode on account of its ending, is also found at Cluny in a characteristic melic version (Ex. 10). This piece, in the Clu 2/Clu 3 reading, sees the third mode character of the intonation and penultimate alleluia dispelled in favor of a coherent F - A - C structure reminiscent of mode five, which runs from the beginning almost up to the end. This is achieved not only by raising the B tenor to C in the incipit (there is some hesitation between these two degrees in the corresponding manuscript tradition, and consequently the C may have been already traditional in the early tenth century), but especially by lowering the cadence on *mortuis* from G to F and the recitation on *iam non moritur* from B to A (as in the sixth mode versions) and by raising the cadences on *moritur* and (the first) *alleluia* from E to F. The resulting version is not theoretically satisfactory, though, because the end still falls on G, and the psalm tone following (in Lewes) is that of the eighth mode<sup>122</sup>. The connection between the fifth and eighth modes being genetically so intimate<sup>123</sup>, the melody is acceptable from an empirical point of view. This version is therefore likely to have been arrived at gradually, with reference to tradition, and not through theoretical reasoning, as probably was the cleaner sixth mode version adopted by the Cistercians.

Without extensive comparison, we can not know if these variants are characteristic of a relatively large area or proper to the Cluniac tradition — as far as the relatively low percentage of surviving medieval musical documents allow us to make this restriction. Having

compared a number of concordant Cluniac readings with those found in a large selection of diastematic manuscripts, including the best representatives of the main geographical areas, in places where the manuscript tradition tends to disagree (see next chapter for details), it became clear that most of the characteristic Cluniac variants in the Graduale are closely related to manuscripts from the Parisian area: early sources from Noyon and Saint-Denis, but also later sources from Paris (and Cambrai<sup>124</sup>). The neumatic variants that these centers have consistently in common are of the simple ornamental type, like passing notes in descending intervals which jump a step or more (e. g. a climacus for a clivis<sup>125</sup>), or slightly expanded passages (e.g. a pes for a punctum or virga<sup>126</sup>, torculus+pes for punctum+virga<sup>127</sup>, quilisma subbipunctis or two pedes instead of one pes<sup>128</sup>). A reduction in the number of notes is rarely found<sup>129</sup>. These kinds of variants are found only occasionally and randomly in other manuscripts; two are however shared by Lyons, which suggests some contamination<sup>130</sup>. The consistency found here suggests that these manuscripts mirror a regional tradition developed in the ninth century, consolidated through personal exchanges and/or early neumations which allowed<sup>131</sup> or incorporated simple ornamental gestures then common in the performance of chant. This regional tradition is common to different chant families, for, according to the monks of Solesmes, "la tradition [de Saint-Denis] est fort différente de la tradition parisienne" [et] "d'après les variantes il n'y a rien de clunisien [...] dans Den 1, 2, 3, 4 (Saint-Denis), réformé par Cluny sous Odilon"<sup>132</sup>.

Besides neumatic variants, a couple of melic variants were identified which confirm the relationship between Cluny and

Paris/Saint-Denis; they also show a parallel with Chartres<sup>133</sup>. Finally, there are a few, rare passages in the Gradual which apparently, on the basis of the sources examined, found a definite and characteristic shape in Cluny<sup>134</sup>. One of them, in the offertory *Jubilate Deo omnis terra*<sup>135</sup>, is specially striking: the upper transposition by a whole step of *omnis terra*, unknown to all the other diastematic manuscripts I could examine, except the Cistercian ones, strongly suggests that the Cluniac tradition provided the model for the revised, and more widely known, Cistercian version of the offertory. The transposition gets away from the recitation on B flat and reinforces C instead, but it also makes G more prominent, which may have suggested to the Cistercians the revision of the whole as an eighth mode piece<sup>136</sup>. Since Cîteaux did not wish to go against melodic tradition except when this was deemed incompatible with an abstractly defined consistency, and since Cluny represented a liturgical orientation which the Cistercians opposed, the relationship between Cluny and Cîteaux in this offertory makes us suspicious that the Cluniac version was more widely circulated than we are lead to believe on the basis of the sources consulted. The monastery of Marmoutier —once reformed by Cluny, later the model for Montier-la-Celle, where the Cistercians, through Molesme, have their roots<sup>137</sup> — may have played a role in its circulation.

To conclude: substantial conformity between Clu 2 and Clu 3 exists not only in contour, which would naturally depend on a similar neumatic model, but in melodic content as well, thus revealing the overall stability of the Cluniac tradition. Even if there are quite a number of places in which the manuscripts disagree about pitch, either

these are minor disagreements<sup>138</sup>, or the pieces in which they occur are the ones that, as we have seen, typically invite conflicting notational solutions, generally triggered by the presence of a "displaced" semitone.

Generally speaking, Cluny tends to be conservative in its chant tradition: although the rise of *mi* to *fa* occurs already in Clu 1<sup>139</sup>, continuing a trend already patent in the Noyon manuscript<sup>140</sup>, the evolution is quite limited compared with northern French and some Italian sources from the twelfth and thirteenth-centuries, not to speak of the eastern European documents<sup>141</sup>. The conservatism of Cluny can also be observed in pieces like the introits *Deus in loco*, *Exsultate Deo*, *Iudica Domine* and *Miserere... conculcavit*; the gradual *Diffusa est gratia*; the alleluias *Christus resurgens*, *Omnes gentes* and *Veni Domine*; the offertory *Tollite portas*; and the communions *De fructu* and *Ego clamavi*, for the corresponding melodic versions most probably sung at Cluny seem to be older than those in the Vatican edition, which follows the large majority of the sources.

Since Cluny's musical conservatism was not accompanied, as far as we know, by any serious effort to legitimate it in face of contemporary developments in music theory<sup>142</sup>, and evidently was not actively enforced in the priories and affiliated houses, it may more aptly be described as a passive traditionalism, oblivious to change and, to some extent, liable to outside influence, a traditionalism which eventually failed to resist the pressure of the surrounding ecclesiastical world. Current musical theory and the corresponding notational innovations undermined the already limited musical uniformity of the Cluniac congregation by promoting revised melodies

and outlawing "displaced" semitones; its joint efforts also resulted (at least apparently) in the demise of the tonal inflections recorded in Clu 1. Thus, to describe the musical state of affairs in the Cluny congregation in the mid-twelfth century as one of "diffuse perplexity" is probably not an exaggeration. Times were ripe for a change which would dispel confusion through the alliance of theoretical creativity and liturgical centralism. This step was inevitably taken outside Cluny, too heavy and varied an ecclesiastical body to reverse: it fell to the Cistercians, under St. Bernard, to assume this often vilipended role.

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<sup>1</sup>*Le Graduel Romain*, II, 97, 162.

<sup>2</sup>MSS St. Gallen, Stiftsbibl. 339, 359, 390-391, and Einsiedeln, Stiftsbibl. 121 (facsimile editions: *Paléographie musicale*, vols. I, IIe série/II, IIe série/I, and IV, respectively).

<sup>3</sup>MS Laon, Bibliothèque municipale, 239 (facsimile edition: *Paléographie musicale*, vol. X).

<sup>4</sup>Former MS Chartres, Bibliothèque municipale, 47 (facsimile edition: *Paléographie musicale*, vol. XI).

<sup>5</sup>For a recent bibliographical survey of semiological studies on Gregorian chant, see Alberto Turco, *Il canto gregoriano*, 2nd edition, Roma: Edizione Torre d'Orfeo, 1991, vol. I, 11-14. Research has been almost exclusively concentrated on the St. Gall notation and, to a lesser extent, the notation of MS. Laon 239. The most comprehensive presentation of rhythmic notations is still that of Gregorio M<sup>a</sup> Suñol, *Introduction a la Paléographie Musicale Grégorienne*, Paris-Tournai-Rome: Desclée et Cie, 1935.

<sup>6</sup>E. g. the Albi-Gaillac Gradual, Paris, B. N. lat. 776, and the Beneventan Gradual, Benevento, Bibl. Cap. VI. 34 (facsimile edition: *Paléographie musicale*, vol. 15). Eleventh- and twelfth-century codices from Aquitaine or Benevento have been privileged by chant scholars on account of both their relatively early date in comparison with northern MSS on staff and their close correspondence to the melodic contours implied by the oldest neumed manuscripts. Cf. Joseph Gajard, "Les réceptions modales des 3<sup>e</sup> et 4<sup>e</sup> modes dans les manuscrits bénéventains et aquitains", *Études grégoriennes*, I (1954), 5-45.

<sup>7</sup>Cf. *Paléographie musicale*, vol. 16, Solesmes, 1955, fol. 11r (also in Ewald Jammers, *Tafeln zur Neumenschrift*, Tutzing: Hans Schneider, 1965, 109: T. 24).

<sup>8</sup>E. g. the Dijon Tonary (*Paléographie musicale*, vol. 8, Solesmes, 1905, fol. 84r [also in E. Jammers, *Tafeln*, 113: T. 26]) and the Norman sources discussed in René-Jean Hesbert, "Les manuscrits musicaux de Jumièges", *Jumièges. Congrès scientifique du XIII<sup>e</sup> centenaire*, Rouen: Lecerc, 1955, vol. II, 901-12.

<sup>9</sup>A few other cases: Intr. *Liberator meus (in iquo)*, Grad. *Bonum est confiteri*



(*man* e), Com. *Quis dabit ex Sion* (*laob*, beg.).

<sup>10</sup>A few other cases: Intr. *Lætetur cor* (*Dominum*, end), Grad. *Esto mihi* (*facias*, end), Grad. *Exsurge... et intende* and *Tibi Domine* (*Domine*, beg.).

<sup>11</sup>On the general issue of rhythm in Gregorian chant, see, as way of introduction, John Rayburn, *Gregorian Chant. A History of the Controversy Concerning Its Rhythm*, New York, 1964, repr. Westport (Conn.): Greenwood Press, 1981, and Bruno Stäblein, "Thèses égalistes et mensuralistes", *Encyclopédie des musiques sacrées*, ed. Jacques Porte, II, Paris: Éd. Labergerie, 1969, 80-98 (on the history of the musicological controversy up to the mid-1960s). More recently, the issue has been dealt with by Lance W. Brunner, "The Performance of Plainchant. Some Preliminary Observations of the New Era", *Early Music*, 10 (1982), 317-28 (on the impact of Cardine's work and the theoretical impasse of the 1970s and 1980s; see also David Hiley, "Chant", *Performance Practice. Music before 1600*, ed. Howard M. Brown and Stanley Sadie, London: MacMillan, 1989, 37-54), and Manuel Pedro Ferreira, "Bases for Transcription: Gregorian Chant and the Notation of the *Cantigas de Santa Maria*", *Los instrumentos del Pórtico de la Gloria: Su reconstrucción y la música de su tiempo*, ed. José López-Caló, 2 vols., La Coruña: Fundación P. Barrié de la Maza, 1993, II, 573-621 (discusses the present state of the problem and offers a new interpretation of the evidence).

<sup>12</sup>Examples: CLU 1 agrees with CHA 1 and LAN against GAL 1 or MUR 3 in the Grads. *Bonum est confiteri* (*nocrem*, beg.), *Ego autem* (*humiliabam*) and *Exsurge... et intende* (*conclude*, end); and also in the Off. *Eripe me... Deus* (*Domine*, mid.). CLU 1 agrees with CHA 1 against LAN and GAL 1 in the Grads. *Bonum est confiteri* (*tuam*) and *Oculi omnium* (*et imple*s), and also in the Off. *Illumina oculos meos* (*more*).

<sup>13</sup>In climacus-like descending forms, Beneventan notation is capable of indicating the long or short durational value of the penultimate note, but not, as far as I can see, that of the last. G. M<sup>a</sup> Suñol, *Introduction*, 158: "on trouve des cas où Saint-Gall ne donne pas de signes épisématiques de retard, pendant que Bénévent en fournit de concert avec Metz et avec Chartres".

<sup>14</sup>Michel Huglo, "Antiphoner", *The New Grove*, vol. 1, 482-90 [483].

<sup>15</sup>F. Raillard, "Emploi".

<sup>16</sup>Unfortunately, in the absence of a readable microfilm, in the present chapter this manuscript was used only occasionally.

<sup>17</sup>Dominique Delalande, "De quelques renseignements mélodiques a tirer de manuscrits purement neumatiques", *Actes du Troisième Congrès International de Musique Sacrée*, Paris, 1-8 Juillet 1957, Paris, n. d., 277-83.

<sup>18</sup>*Lutum fecit* (45v), *Hoc corpus* (48r), *Lavabo* (50r), *Pascha nostrum* (57v), *Mitte manum* (61v), *Omnes qui* (61v), *Non vos relinquam* (71v) and *Anima nostra* (77v).

<sup>19</sup>Aurelian of Réôme's modal theory (discussed in D. Hiley, *Western Plainchant*, 456-57) makes it clear that, whatever was the case in earlier times, in the post-Carolingian era clerical singers thought of tones and modes as twin, complementary concepts.

<sup>20</sup>Discussed in M. Huglo, *Les tonaires*, 112-115.

<sup>21</sup>The internal intonation is the formula used to start the second half of the two-part psalm tone, leading to the reinstatement of the reciting tone. The internal intonation for tone VII can be reconstructed as: DH CD D — .

<sup>22</sup>M. Huglo, *Les tonaires*, 328.

<sup>23</sup>London, B. M. Harley 4951, 295v-301v [298v, reproduced in the frontispiece of D. Hiley, *Western Plainchant*, ii].

<sup>24</sup>This list was compiled on the basis of: Jules Borremans, *Le chant liturgique*

traditionnel des Prémontrés: *Étude — Le Graduel*, Malines: H. Dessain, 1914; Urbanus Bomm, *Der Wechsel der Modalitätsbestimmung in der Tradition der Messgesänge im IX. bis XIII. Jahrhundert und sein Einfluss auf die Tradition Ihrer Melodien*, Einsiedeln: Benziger & Co., 1929; Dominique Delalande, *Le Graduel des Prêcheurs. Recherches sur les sources et la valeur de son texte musical*, Paris: Les Éditions du Cerf, 1949; Solutor R. Marosszéki, *Les origines du chant cistercien. Recherches sur les réformes du plain-chant cistercien au XIIe siècle*, Roma: Tipografia Poliglotta Vaticana, 1952 [*Analecta sacris ordinis cisterciensis*, vol. VIII]; M. Huglo, *Les Tonaires*, 402, 409; Nicholas Stuart, "Melodic 'Corrections' in an Eleventh-Century Gradual (Paris, B.N., lat. 903)", in *Journal of the Plain-song and Mediaeval Music Society*, ii (1979), 2-10; Robert B. Haller, "Early Dominican Mass Chants: A Witness to Thirteenth Century Chant Style" (Ph. D. dissertation, The Catholic University of America, 1986); Cristiano Veroli, "La revisione musicale bernardiana e il graduale cisterciense" (I), *Analecta cisterciensis*, 47 (1991), 3-141. I was not able to use Angelo Corno and Giorgio Merli's "La restituzione melodica degli introiti del *Graduale Romanum* 1974 — *Tempus per annum*", *Note Gregoriane* 3, Cremona: Turris, 1994, 9-137. The introits *De ventre* and *Gloria et honore* are not found in Clu 1.

<sup>25</sup>M. Huglo, *Les tonaires*, 402, 409.

<sup>26</sup>Clu 1, 53v; Clu 2, 68; Clu 3, 128 [186]v.

<sup>27</sup>Clu 1, 48v; Clu 2, 61v; Clu 3, 119 [177].

<sup>28</sup>Clu 1, 11; Clu 2, 15; Clu 3, 432 [488].

<sup>29</sup>Clu 1, 89v; Clu 2, 121; Clu 3, 203 [260].

<sup>30</sup>Clu 1, 17v; Clu 2, 23v; Clu 3, 440 [496].

<sup>31</sup>Clu 1, 91; Clu 2, 123v; Clu 3, 214 [271].

<sup>32</sup>Clu 1, 71; Clu 2, 89; Clu 3, 180 [237].

<sup>33</sup>Clu 1, 59v; Clu 2, 79v; Clu 3, 151 [209]v.

<sup>34</sup>N. Stuart, "Melodic corrections", 3-4. M. Huglo, *Les tonaires*, 100. See also U. Bomm, *Der Wechsel*, 41-43, and H. van der Werf, *The Emergence*, II, 96-99.

<sup>35</sup>N. Stuart, "Melodic corrections", 3.

<sup>36</sup>M. Huglo, *Les tonaires*, 84.

<sup>37</sup>On this Introit, see U. Bomm, *Der Wechsel*, 48-51; Michel Huglo, "Le tonaire de Saint-Bénigne de Dijon (*Montpellier H. 159*)", *Annales musicologiques*, 4 (1956), 7-18 [16-17]; id., *Les tonaires*, 96, 327; Jean Jeanneteau, *Los modos gregorianos. Historia - Análisis - Estética*, Silos: Abadía, 1985, 307-8, 358; R. Haller, "Early Dominican Mass Chants", 270-75, 315; C. Veroli, "La revisione", 104-5, 135. The MS. Firenze, Bibl. Laurenziana, Ashburnham 61 (a Toscan Missal written c. 1100), fol. 77v, and the thirteenth-century Franciscan Gradual kept at the Carmignano Parish, MS. [C], fols. 51v-52r, were consulted *in loco* by the present author. The melody in the Carmignano Gradual coincides exactly with that in the Franciscan Missal Rome, Bibl. Vat. Regin. lat. 2049 as transcribed by Haller, 315.

<sup>38</sup>U. Bomm, *Der Wechsel*, 51, thinks that one can not determine whether mode 1 or mode 3 corresponds to the original melody. D. Delalande, *Le Graduel*, 49, sees the mode 1 final as the authentic one. M. Huglo, "Le tonaire de Saint-Bénigne", 16-17, seems to imply that the mode 3 setting is the most ancient. R. Haller, "Early Dominican Mass Chants", 271-75, after careful analysis of the different versions, regards the more difficult mode 1 reading represented by the Dijon Tonary as the original.

<sup>39</sup>Finn Egeland Hansen, *The Grammar of Gregorian Tonality. An Investigation Based on the Repertory in Codex H 159, Montpellier*, Copenhagen: Dan Fog Musikforlag, 1979, 160-62, views this introit as a "bifurcate" melody. J. Jeanneteau, *Los modos*, regards it as being in mixed mode (Tetrardus) and

proposes some melodic corrections to the Vatican edition (see pp. 57, 183, 303, 352-53).

<sup>40</sup>M. Huglo, *Les tonaires*, 97, 327, 342, 402.

<sup>41</sup>Cf. J. Jeanneteau, *Los modos*, 71-72, 87-88, 236-40.

<sup>42</sup>J. Jeanneteau, *Los modos*, 29, 289-92.

<sup>43</sup>M. Huglo, *Les tonaires*, 84, 101, 342. See also R. Haller, "Early Dominican Mass Chants", 264-65, 311, and C. Veroli, "La revisione", 108-9, 137.

<sup>44</sup>M. Huglo, *Les Tonaires*, 411. H. van der Werf, *The Emergence*, II, 100-103; C. Veroli, "La revisione", 69-70. Fulvio Rampi, "Un contesto di divergenza melodica fra il codice Bv e i codici Al, Y", *Studi gregoriani*, 7 (1991), 133-66 [162-63]. On simple intonations characteristic of mode three, see J. Jeanneteau, *Los modos*, 292-96.

<sup>45</sup>M. Huglo, *Les tonaires*, 32, 84, 96, 342, 409. C. Veroli, "La revisione", 69-71, 123-24. The original intonation of the introit (and the music over *linguas*) stresses the tenor B, thus justifying a third mode assignment. Following the general tendency to raise the third mode recitation tone, both Lewes and Sauxillanges have these passages recentered on C, which is coherent with the Tetrardus final; the Gradual-antiphonary of St. Maur-les-Fossés had originally a third mode assignment, but it was changed to VIII mode by a copyist whom Huglo (*Les tonaires*, 114-115) suspects tried to follow as close as possible the Cluny tradition. Thus it is possible that at a certain moment Cluny decided to change the modal assignment from third to eighth mode, either because the end rather than the beginning of the antiphon was taken into account, or because the rise of B to C in the intonation had given it a Tetrardus quality.

<sup>46</sup>François Auguste Gevaert, *La mélodie antique dans le chant de l'église latine*, Gand: Ad. Hoste Éd., 1895, 119; M. Huglo, *Les tonaires*, 72, 411; F. E. Hansen, *The Grammar*, 183-95; Harold S. Powers, "Mode", *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie, London: MacMillan, 1980, vol. 12, 376-450 [382].

<sup>47</sup>R. Steiner, "Reconstructing the Repertory", 176-79.

<sup>48</sup>Although the sample does not take into account all the pieces which might pose theoretical and/or editorial problems, there was an effort to include a large number of them and most of the more significant examples. I excluded from the comparison many Alleluias discussed in J. Borremans, *Le chant liturgique*, a number of Graduals, Alleluias, Offertories and about half of the Communions discussed in U. Bomm, *Der Wechsel*. I also did not include those chants which seem to have posed problems only to the Cistercian and Dominican editors of the Gradual: the introits *Iudica me Deus*, *Lætare Jerusalem* and *Omnis terra*; the graduals *Ad Dominum*, *Adjutor in opportunitatibus*, *Adjutor meus et liberator*, *Angelis suis*, *Benedictus qui venit*, *Bonum est confidere*, *Christus factus est*, *Convertere*, *Discerne causam*, *Domine Dominus noster*, *Ecce quam bonus*, *Jacta cogitatum*, *Miserere mihi*, *Misit Dominus*, *Ostende nobis*, *Pacifice*, *Prope est*, *Propitius esto*, *Protector noster*, *Sciant gentes*, *Sederunt principes*, *Timebunt gentes*, *Unam petii* and *Venite filii*; the Alleluias *Excita Domine*, *In conspectu* and *Te decet*; and the offertories *Anima nostra*, *Confitebor Domino*, *De profundis*, *Domine exaudi*, *Eripe me... de inimicis*, *Jubilare Deo universa*, *Precatus est Moyses* and *Reges Tharsis*. These pieces were nevertheless briefly examined in Clu 3, just in case there were Cluniac precedents for the reformed Cistercian versions; but no precedent was found. On the introit *Lætare* see, however, D. Delalande, *Le graduel*, 252-54; F. E. Hansen, *The Grammar*, 157; H. van der Werf, *The Emergence*, II, 7, 58-62; David G. Hughes, "Evidence for the Traditional View of the Transmission of Gregorian Chant", *Journal of the American Musicological Society*, 40 (1987), 377-404 [391-92].

<sup>49</sup>E. g. in the gradual *Qui sedes* (Clu 1, 3v; Clu 2, 3v; Clu 3, 24 [82]), Clu 3 writes the *porrectus* over *excit*a a third higher (wrong line). In the gradual *Miserere mihi Domine* (Clu 1, 41v; Clu 2, 51v; Clu 3, 104 [162]v), Clu 2 jumps three neumes at the beginning of the verse (melisma on *Conturbat*a), presumably because this neumatic group is the same as the preceding.

<sup>50</sup>J. Froger, "The critical edition", 85-86.

<sup>51</sup>Clu 1, 42v; Clu 2, 53; Clu 3, 105 [163]v. On this communion, see U. Bomm, *Der Wechsel*, 55; Willi Apel, *Gregorian Chant*, Bloomington: Indiana University Press, 1958, 168-69; K. Fleming, "The editing", 136-40; R. Haller, "Early Dominican Mass Chants", 268-70, 314.

<sup>52</sup>Clu 1, 76; Clu 2, 101v; Clu 3, 311 [367].

<sup>53</sup>Clu 1, 5v; Clu 2, 7v; Clu 3, 31 [89].

<sup>54</sup>Clu 1, 12; Clu 2, 16; Clu 3, 441 [497]v.

<sup>55</sup>Clu 1, 90v; Clu 2, 123; Clu 3, 209 [266].

<sup>56</sup>On this Alleluia, see Gustav Jacobsthal, *Die chromatische Alteration im liturgischen Gesang der abendländischen Kirche*, Berlin: Julius Springer, 1897 (repr. Hildesheim: Georg Olms, 1970), 40-42, 121-23; J. Borremans, *Le chant liturgique*, 41-57; U. Bomm, *Der Wechsel*, 141-42; S. Marosszéki, *Les origines du chant cistercien*, 77; N. Stuart, "Melodic Corrections", 5, 9; R. Haller, "Early Dominican Mass Chants", 203-4; C. Veroli, "La revisione musicale bernardiana", 79-80, 126-27; Manuel Pedro Ferreira, "Three Fragments from Lamego", *Revista de Musicologia*, XVI (1993), 457-76 [464-66]. In the second, revised edition of the *Graduale Lagal* (Chris F. J. Hakkennes, *Graduale Lagal in partibus octo, Kyriali Lagal incluso; editio 2a revisa*, Utrecht: Stichting Lagal, 1994) the version with double final A is adopted.

<sup>57</sup>Clu 1, 71v [on the margin]; Clu 2, 89; Clu 3, 180[237]v.

<sup>58</sup>K. Fleming, "The Editing", 28-34. On this communion, see also U. Bomm, *Der Wechsel*, 88; D. Delalande, *Le Graduel*, 67-68, 210-11; F. E. Hansen, *The Grammar*, 153, 156; R. B. Haller, "Early Dominican Mass Chants", 257-59, 308.

<sup>59</sup>Clu 1, 48v, 59v; Clu 2, 61v, 79; Clu 3, 119 [177], 151 [209]. On the communion *Christus resurgens*, see M. Huglo, *Les tonaires*, 409; F. E. Hansen, *The Grammar*, 159-60; C. Veroli, "La revisione", 61, 91-93, 131.

<sup>60</sup>Clu 1, 63v; Clu 2, 83v; Clu 3, 164 [221]v. There were originally two *salicus* on *s*p*iritus v*e*ritatis*, both translated by a double virga in Clu 1.

<sup>61</sup>Clu 1, 87; St. Maur, 200v; Clu 2, 117v; Clu 3, 191 [248]v. On this communion, see Delalande, *Le graduel*, 255-57; F. E. Hansen, *The Grammar*, 165-66; Stuart, "Melodic corrections", 6, 10; J. Jeanneteau, *Los modos*, 80, 418.

<sup>62</sup>N. Stuart, "Melodic Corrections". Stuart does not mention corrections made in the gradual *Qui sedes* and in the communions *Amen dico... quod uni* and *Dicit Dominus: Implete*.

<sup>63</sup>The E final is found, for instance, in Benevento (Bibl. Cap. 40) and Albi-Gaillac (Paris, B. N. lat. 776). It is the note adopted by the editors of the *Graduale Romanum*; it is accepted by Paolo Ferretti, *Esthétique grégorienne ou Traité des formes musicales du chant grégorien*, I, Solesmes: Abbaye, 1938, 278-90, and also by C. Hakkennes, *Graduale Lagal*, 410-12.

<sup>64</sup>N. Stuart, "Melodic corrections", 3-4. See also above, note 26.

<sup>65</sup>Clu 1, 74; St. Maur, 184; Clu 2, 97v; Clu 3, 414 [470].

<sup>66</sup>Clu 2 transposes this section a second higher, Saint-Yrieix a fourth lower. Lewes sees this communion as fourth mode, St. Maur (like Noyon and Rodrade) as first mode; the latter classification is suggested by the intonation. On this communion, see U. Bomm, *Der wechsel*, 77; M. Huglo, *Les tonaires*, 94, 409; C. Veroli, "La revisione musicale", 71-72, 124.

<sup>67</sup>Clu 1, 16; Clu 2, 22; Clu 3, 442 [498]. On this offertory, see Stuart, "Melodic corrections", 3-5; J. Jeanneteau, *Los modos*, 275, 289-90, 348; C. Veroli, "La revisione musicale", 77-79, 126. The piece begins ambiguously (mode 5 or 8) and originally ends on E (mode 3). Aquitanian sources ending on F include the graduals from Toulouse, Saint-Yrieix and St. Martial de Limoges. The Roman-Franciscan tradition also adopted the F final.

<sup>68</sup>E. g. Tuscany (Firenze, Bibl. Laurenziana, Ashburnham 61) and Paris (London, B.L. add. 16905), which have a version equivalent to Clu 2. On this communion, see D. Delalande, "Le graduel", 64; K. Fleming, "The Editing", 66ff.; R. Haller, "Early Dominican Mass Chants", 265-68, 312-13.

<sup>69</sup>Clu 1, 15; St. Maur, 132; Clu 2, 20v; Clu 3, 60 [118].

<sup>70</sup>On this Alleluia, see Jules Borremans, "A propos de l'Alleluia: V/. Omnes gentes", *La Tribune de Saint-Gervais*, XX (1914), 57-61, 92-96. Id., *Le chant liturgique*, 116-24, 127-28. U. Bomm, *Der Wechsel*, 137-39. C. Veroli, "La revisione musicale", 84-87, 128-29.

<sup>71</sup>Clu 1, 93; Clu 2, 126v; Clu 3, 217 [272]v. On this communion, see N. Stuart, "Melodic corrections", 2-3.

<sup>72</sup>Clu 1, 11v; Clu 2, 16; Clu 3, 441 [497]. On this gradual, see J. Borremans, *Le chant liturgique*, 115, 130-31; U. Bomm, *Der Wechsel*, 120-21; N. Stuart, "Melodic corrections", 6, 9. The Vatican edition has a revised version, without E flat.

<sup>73</sup>Clu 1, 11/ 22v; Clu 2, 15v; Clu 3, 434 [490]v. On this communion, see G. Jacobsthal, *Die chromatische Alteration*, 100ff.; J. Borremans, *Le chant liturgique*, 37-38; N. Stuart, "Melodic corrections", 6, 10; Charles M. Atkinson, "From *Vitium* to *Tonus acquisitus*: On the Evolution of the Notational Matrix of Medieval Chant", *Cantus Planus. Papers Read at the Third Meeting, Tihany, Hungary, 19-24 September 1988*, Budapest: Institute for Musicology, 1990, 181-97; C. Veroli, "La revisione musicale", 106-7, 136.

<sup>74</sup>Clu 1, 92; Clu 2, 124v; Clu 3, 359 [414]. On this introit, see J. Borremans, *Le chant liturgique*, 124-25, and H. van der Werf, *The Emergence*, II, 67-70. The Vatican edition does not keep the "displaced" semitone.

<sup>75</sup>Clu 1, 12v; Clu 2, 17; Clu 3, 53 [111]. On this gradual, see U. Bomm, *Der Wechsel*, 118-19; D. Delalande, *Le graduel*, 46-47, 50-52, 259-60, 283, Tableau IX<sup>bis</sup>; John Harris Planer, "The Ecclesiastical Modes in the Late Eighth Century" (Ph. D. dissertation, The University of Michigan, 1970), 183; C. Veroli, "La revisione musicale", 96-98, 132-33.

<sup>76</sup>Clu 1, 62; Clu 2, 82v; Clu 3, 162 [219]v. On this alleluia, see J. Borremans, "A propos de l'Alleluia: V/ *Christus resurgens*", *La Tribune de Saint-Gervais*, XIX (1913), 213-23; id., *Le chant liturgique*, 75-82. The Vatican edition has a revised melodic version.

<sup>77</sup>Clu 1, 60; Clu 2, 79v; Clu 3, 152 [210]. On this offertory, see G. Jacobsthal, *Die chromatische Alteration*, 222ff.; J. Borremans, *Le chant liturgique*, 129-31; U. Bomm, *Der Wechsel*, 166-67; J. Planer, "The Ecclesiastical Modes", 185; N. Stuart, "Melodic corrections", 6, 9; Kenneth Levy, "Toledo, Rome and the Legacy of Gaul", *Early Music History*, IV (1984), 49-99; R. Haller, "Early Dominican Mass Chants", 292-96, 324-25; Dean Richard Justmann, "Mode-One Offertories: A Critical Edition with Analysis", 6 vols. (Ph. D. dissertation, Northwestern University, 1988); C. Veroli, "La revisione musicale", 80-83, 127-28.

<sup>78</sup>Clu 1, 20v; Clu 2, 27; Clu 3, 420 [476]. On this offertory, see G. Jacobsthal, *Die chromatische Alteration*, 39; Amédée Gastoué, *Les origines du chant romain. L'antiphonaire grégorien*, Paris: A. Picard & Fils, 1907, 155-56; J. Borremans, *Le chant liturgique*, 114-15; U. Bomm, *Der Wechsel*, 180-81; Ruth Steiner, "Some questions about the Gregorian Offertories and Their Verses", *Journal of the*

*American Musicological Society*, 19 (1966), 162-81 [166-69]; N. Stuart, "Melodic corrections", 6, 9.

<sup>79</sup>Clu 1, 92; St. Maur, 205; Clu 2, 125; Clu 3, 356 [414]v. St. Maur classifies this piece in the eight mode (probably on account of the intonation), while Lewes has a second mode *seculorum*, coherent with the D final. The earliest tonaries and graduals tend to view this piece as Protus (authentic or plagal), while Noyon classifies it in the fourth mode (M. Huglo, *Les tonaires*, 97, 403). See also U. Bomm, *Der Wechsel*, 78-79; D. Delalande, *Le graduel*, 68; F. E. Hansen, *The Grammar*, 153, 155; R. Haller, "Early Dominican Mass Chants", 289-92, 323; László Dobszay, "The Debate About the Oral and Written Transmission of Chant", *Revista de Musicología*, XIV (1993), 706-29 [708-11].

<sup>80</sup>Clu 1, 88v; St. Maur, 201v; Clu 2, 119v; Clu 3, 195 [252]v. St. Maur classifies this piece in the eight mode, on account of the intonation; this assignment is shared by most of the early tonaries (M. Huglo, *Les tonaires*, 409). Bibliography on this communion includes G. Jacobsthal, *Die chromatische Alteration*, 50-52; J. Borremans, *Le chant liturgique*, 115-16; U. Bomm, *Der Wechsel*, 58-59, 96 ff.; D. Delalande, *Le graduel*, 46-47, 65; W. Apel, *Gregorian Chant*, 163, 171-72; K. Fleming, "The editing", 94-99, 106-8.

<sup>81</sup>Clu 1, 90; St. Maur, 203; Clu 2, 122; Clu 3, 205 [262]v. St. Maur classifies this piece in the eight mode, while Lewes chooses the sixth (the melody is transposed a fifth higher, allowing an E flat to be written as B flat beginning with *oleo*). On this communion, see G. Jacobsthal, *Die chromatische Alteration*, 52-62, 136-78; J. Borremans, *Le chant liturgique*, 103-11; U. Bomm, *Der Wechsel*, 60-62, 97-103; W. Apel, *Gregorian Chant*, 168; M. Huglo, *Les tonaires*, 409; F. E. Hansen, *The Grammar*, 165; N. Stuart, "Melodic corrections", 3-4, 8; K. Fleming, "The editing", 100-108; J. Jeanneteau, *Los modos*, 152; R. Haller, "Early Dominican Mass Chants", 282-86, 319-20; D. Hiley, *Western Plainchant*, 473-74.

<sup>82</sup>Clu 1, 87v; St. Maur, 200v; Clu 2, 118; Clu 3, 192 [249]v. The Clu 2 version contradicts the neumatic contour in Clu 1 over *aurem tuam*. It transposes up a second *exaudi verba mea*, and ends on G. A G final is coherent with the modal classification in St. Maur (mode eight, as in Noyon and Rodrade: M. Huglo, *Les tonaires*, 101). Lewes has a C ending (with B flat), i. e. eight mode, but a sixth mode tone, which is compatible with the incipit and with an untransposed final F (with E flat). The incipit is, however, quite ambiguous. Bibliography: G. Jacobsthal, *Die chromatische Alteration*, 115-20; U. Bomm, *Der Wechsel*, 103-4; D. Delalande, *Le graduel*, 65, 211-12, Tableau XXX; W. Apel, *Gregorian Chant*, 170; K. Fleming, "The editing", 109-15; J. Jeanneteau, *Los modos*, 272, 364-65, 419; R. Haller, "Early Dominican Mass Chants", 279-82, 318; C. Veroli, "La revisione musicale", 62.

<sup>83</sup>Clu 1, 40; St. Maur, 153v; Clu 2, 50v; Clu 3, 102 [160]v. Lewes classifies this piece in first mode. St. Maur, on account of the intonation, gives it a third mode assignment (as do the Carolingian Psalter and other early tonaries: J. Planer, "The Ecclesiastical Modes", 188-89 and M. Huglo, *Les tonaires*, 27, 409) but writes a first mode psalm tone. On this communion, see A. Gastoué, *Les origines*, 154-55; U. Bomm, *Der Wechsel*, 105-8; D. Delalande, *Le graduel*, 67, 257-58; Bruno Stäblein, *Schriftbild der einstimmigen Musik [Musikgeschichte in Bildern, III/4]*, Leipzig: VEB Deutscher Verlag für Musik, 1975, 218-19; F. E. Hansen, *The Grammar*, 160, 163-64; R. Haller, "Early Dominican Mass Chants", 286-89, 321-22; C. Veroli, "La revisione musicale", 99-102, 133-34.

<sup>84</sup>Clu 1, 62v; St. Maur, 173v; Clu 2, 82; Clu 3, 161 [218]. The Saint-Denis tradition, represented by the Sacramentary of Rodrade, includes this piece in the fourth mode, while the ancient tonaries choose (preferably) the seventh or the second:

M. Huglo, *Les tonaires*, 97. 409. St. Maur and Lewes agree in classifying this communion in the eight mode. Lewes has a G final (with B flat), whereas Clu 2 ends on A, but the main differences between the two sources occur in the first and in the penultimate *alleluia*. The melody is particularly ambiguous; it relates to the fourth mode, but also to the second mode or the Tetrardus (as comparison with the communion *Ego sum vitis vera* makes clear). I doubt that the Vatican edition presents the authentic melodic version. C. Hakkennes's melody in the *Graduale Lagal*, 166 (eight mode instead of the second mode adopted by the Vatican) may be no better. Discrepancy between the manuscripts over *et cognosco, meæ* (where St. Maur has a quilisma) and in the penultimate *alleluia* suggests the presence of one or more "displaced" semitones. Bibliography: U. Bomm, *Der Wechsel*, 85-86; R. Haller, "Early Dominican Mass Chants", 248-49, 302; J. Jeanneteau, *Los modos*, 124-25, 352-54; C. Veroli, "La revisione musicale", 62-63.

<sup>85</sup>Nancy Phillips, "Musica and Scolica Enchiriadis. The Literary, Theoretical, and Musical Sources" (Ph. D. dissertation, New York University, 1984), 195-97, 470-97; id., "The Dasia Notation and Its Manuscript Tradition", *Musicologie Médiévale. Notations et Séquences*, ed. Michel Huglo, Paris, 1987, 157-78.

<sup>86</sup>W. Apel, *Gregorian Chant*, 163-64; C. Atkinson, "From Vitium", 192-94.

<sup>87</sup>Rembert Weakland, "Hucbald as Musician and Theorist", *The Musical Quarterly*, 42 (1956), 67-84; W. Apel, *Gregorian Chant*, 152-53; D. Hiley, *Western Plainchant*, 448-52.

<sup>88</sup>John Snyder, "Non-diatonic Tones in Plainsong: Theinred of Dover versus Guido d'Arezzo", *Actes du XIIIe Congrès de la Société Internationale de Musicologie*, vol. 2, Strasbourg, 1986, 49-67.

<sup>89</sup>Cf. J. Hourlier, "Remarques", and Chapter 2 above.

<sup>90</sup>Clu 1, 60v; Clu 2, 80v; Clu 3, 154 [212]. Clu 2 has a Tritus melody, Lewes a Tetrardus melody. This offertory has been commented upon by U. Bomm, *Der Wechsel*, 160-61; D. Delalande, *Le graduel*, 66-67; K. Levy, "Toledo, Rome and the Legacy of Gaul"; id., "Old-Hispanic Chant in its European Context", *España en la Música de Occidente. Actas del Congreso Internacional*, Madrid: Ministerio de Cultura, 1987, I, 3-14; and C. Veroli, "La revisione musicale", 106, 135-36. Further research is nevertheless needed to make sense of the manuscript evidence.

<sup>91</sup>Clu 1, 6v; Clu 2, 8v; Clu 3, 32 [90]v. The Vatican edition does not retain the modulation, transmitted, for instance, by the Dijon Tonary. See U. Bomm, *Der Wechsel*, 174-75; Hubert Sidler, "Studien zu den alten Offertorien mit ihren Versen" (Diss., Fribourg, 1939), 43-47, cit. in R. Steiner, "Some questions", 169-70; R. Haller, "Early Dominican Mass Chants", 254-55, 306; Cheryl Crawford Frasch, "Notation as a Guide to Modality in the Offertories of Paris, B. N. lat. 903" (Ph. D. dissertation, The Ohio State University, 1986), 169-70; D. Hiley, *Western Plainchant*, 126-28.

<sup>92</sup>Clu 1, 11v; Clu 2, 15v; Clu 3, 434 [490]v. Bibliography: U. Bomm, *Der Wechsel*, 182; N. Stuart, "Melodic Corrections", 6, 9.

<sup>93</sup>Clu 1, 16; Clu 2, 21v; Clu 3, 434 [490]v. Bibliography: U. Bomm, *Der Wechsel*, 63; F. E. Hansen, *The Grammar*, 160, 162-63; C. Veroli, "La revisione musicale", 107-8, 136.

<sup>94</sup>Clu 1, 69v; Clu 2, 116v; Clu 3, 408 [464]. Bibliography: U. Bomm, *Der Wechsel*, 63; N. Stuart, "Melodic Corrections", 6, 10.

<sup>95</sup>Clu 1, 71; Clu 2, 88v; Clu 3, 179 [236]. The modal ambiguity of the opening is emphasized in the Cluniac sources by the B natural over *iocunditatem*, shared by Compiègne and the Roman-Franciscan tradition. Bibliography: U. Bomm, *Der Wechsel*, 38; C. Veroli, "La revisione musicale", 66-68, 122-23.

<sup>96</sup>Clu 1, 61; St. Maur, 172v; Clu 2, 81; Clu 3, 154 [211]v. This melody appear in the

manuscript tradition in different versions; the Cluniac sources have the most common one, with G final. Clu 1 classifies it in the seventh mode; St. Maur theoretically agrees, but, in accordance with the Saint-Denis tradition represented by Rodrade, gives it a fourth mode tone, later corrected to seventh mode. On this introit, see U. Bomm, *Der Wechsel*, 44-45; M. Huglo, *Les tonaires*, 97, 114; R. Haller, "Early Dominican Mass Chants", 259-64, 309-10; C. Veroli, "La revisione musicale", 102-4, 134-35.

<sup>97</sup>Clu 1, 90; Clu 2, 121v; Clu 3, 205 [262]v. On this responsory, see D. Delalande, *Le graduel*, 46-47, 61, Tableau XV; N. Stuart, "Melodic Corrections", 3-4; C. Veroli, "La revisione", 115, 139.

<sup>98</sup>Clu 1, 22; Clu 2, 29v; Clu 3, 419 [475]. Bibliography: U. Bomm, *Der Wechsel*, 115; N. Stuart, "Melodic Corrections", 3-4; C. Veroli, "La revisione musicale", 59, 113-15, 138-39.

<sup>99</sup>Clu 1, 86v; Clu 2, 116v; Clu 3, 189 [246]v. Commented by N. Stuart, "Melodic Corrections", 3-4.

<sup>100</sup>Clu 1, 18; Clu 2, 24; Clu 3, 60 [118]v. The ambiguity between modes one (D-F-A structure) and four (E-A structure) found in this melody is emphasized in the Cluniac sources by the F ending (instead of E) of the first part of the jubilus. On this Alleluia, see U. Bomm, *Der Wechsel*, 128; C. Veroli, "La revisione musicale", 59, 88-89, 129.

<sup>101</sup>Clu 1, 4bisv; Clu 2, 6v; Clu 3, 29 [87]. Bibliography: U. Bomm, *Der Wechsel*, 162; R. Haller, "Early Dominican Mass Chants", 255-57, 307; C. Frasc, "Notation as a Guide", 173-76; C. Veroli, "La revisione musicale", 75, 124-25.

<sup>102</sup>Clu 1, 47; Clu 2, 59v; Clu 3, 115 [173]v. This offertory is commented upon by U. Bomm, *Der Wechsel*, 163; D. Delalande, *Le graduel*, 46-47, 49; N. Stuart, "Melodic Corrections", 3-5; C. Veroli, "La revisione musicale", 60.

<sup>103</sup>Clu 1, 40; Clu 2, 50; Clu 3, 102 [160]v. This piece can be classified in sixth mode except for the fourth mode ending. See U. Bomm, *Der Wechsel*, 169-71; D. Delalande, *Le graduel*, 30, 46-47; N. Stuart, "Melodic Corrections", 4-5; J. Jeanneteau, *Los modos*, 290, 348, 424; R. Haller, "Early Dominican Mass Chants", 251-54, 304-5; C. Frasc, "Notation as a Guide", 208-10; C. Veroli, "La revisione musicale", 60-61.

<sup>104</sup>Clu 1, 59v; Clu 2, 79; Clu 3, 151 [209]. See also note 52. More on this communion below.

<sup>105</sup>Clu 1, 92; St. Maur, 206; Clu 2, 125v; Clu 3, 361 [416]. St. Maur classifies this communion in the second mode (probably on account of the intonation), while Lewes has an eighth mode tone. Most early tonaries (followed by the gradual of Noyon) have a fifth mode assignment, but modes two, seven and eight are also found. See U. Bomm, *Der Wechsel*, 69, 87; J. Planer, "The Ecclesiastical Modes", 186-87; M. Huglo, *Les tonaires*, 98, 409; N. Stuart, "Melodic Corrections", 3-4, 8; R. Haller, "Early Dominican Mass Chants", 246-47, 300-1; C. Veroli, "La revisione musicale", 63, 109-10, 137.

<sup>106</sup>Clu 1, 82v; St. Maur, 195; Clu 2, 110; Clu 3, 428 [484]. Both St. Maur and Lewes assign this communion to the fourth mode, as do most early tonaries. See U. Bomm, *Der Wechsel*, 90-91; M. Huglo, *Les tonaires*, 97, 410; C. Veroli, "La revisione musicale", 73-74, 124.

<sup>107</sup>Clu 1, 3v; Clu 2, 3v; Clu 3, 24 [82]. The last climacus reads AGF, not AFD; there is agreement here between Clu 2 and Clu 3. In the passage over *excita... veni* the manuscripts do not entirely coincide, but the divergence is mostly due to a copying error in Lewes (a porrectus written a 3rd above). The avoidance of the D at the end has been associated in musicological literature with the Cistercian chant reform. On this gradual, see D. Delalande, *Le graduel*, 56, 60, Tableau XIV,



and R. Haller, "Early Dominican Mass Chants", 215-17.

<sup>108</sup>Clu 1, 63v; St. Maur, 175; Clu 2, 84; Clu 3, 166 [223]. The E flats are accepted by C. Hakkennes in the *Graduale Lagal*, 162. Most early tonaries (including the Carolingian Psalter and the Metz Tonary), St. Maur, Lewes, Rodrade, Toulouse and Saint-Yrieix coincide in classifying this piece in the first mode. Cf. G. Jacobsthal, *Die chromatische Alteration*, 37-39; J. Planer, "The Ecclesiastical Modes", 186-87; M. Huglo, *Les tonaires*, 27, 94, 140; N. Stuart, "Melodic corrections", 6, 10.

<sup>109</sup>Clu 1, 71v; Clu 2, 89v; Clu 3, 182 [239]. Compare with the cadences on A in the Vatican edition. More on this communion below.

<sup>110</sup>Marie-Noël Colette, "Le *Salve Regina* en Aquitaine au XII<sup>ème</sup> siècle. L'auteur du *Salve*", *Cantus Planus. Papers Read at the Fourth Meeting, Pécs, Hungary, 3-8 September 1990*, Budapest: Hungarian Academy of Sciences, 1992, 521-47 [525, 538-40].

<sup>111</sup>D. Hiley, *Western Plainchant*, 575, writes: "The tendency has been [...] to assume Cluniac influence on liturgical music simply because it must have been influential". I plead guilty of this sin: in "The Cluny Gradual", 211, the possibility of Aquitanian influence over Cluny is too readily dismissed.

<sup>112</sup>Paris, B. N. n. a. lat 1436: p. 731.

<sup>113</sup>St. Maur, 182.

<sup>114</sup>M. Huglo, *Les tonaires*, 101.

<sup>115</sup>Clu 1, 66; Clu 2, 86; Clu 3, 172 [229]. On this introit, see G. Jacobsthal, *Die chromatische Alteration*, 70-71; U. Bomm, *Der Wechsel*, 35; D. Delalande, *Le graduel*, 46-47, 54; id., "L'insuffisance du système d'écriture guidonien, ou l'existence de plusieurs notes mobiles dans le système grégorien", *Actes du Congrès International de Musique Sacrée (Rome, 25-30 Mai 1950)*, Tournai: Desclée et Cie, 1952, 202-206; Joseph Gajard, "Du rôle des principales familles de manuscrits dans la restauration de la leçon grégorienne authentique", *Revue grégorienne*, 30 (1951), 1-11 [8-9].

<sup>116</sup>In Solesmes's first selection of neumatic variants, some kinds of variation were excluded: cf. *Le Graduel Romain*, IV/i, 22, 300.

<sup>117</sup>Clu 1, 62v; Clu 2, 81v; Clu 3, 160 [217]v.

<sup>118</sup>Clu 1, 30v; Clu 2, 39; Clu 3, 88 [146]v. On the introit *Reminiscere*, see D. Delalande, *Le graduel*, 124-35 and Tableau XXVI (with proposed reconstruction); J. Gajard, "Du rôle", 6 (with proposed reconstruction of first phrase); C. Hakkennes, *Graduale Lagal*, 65-66.

<sup>119</sup>Clu 1, 42; Clu 2, 52; Clu 3, 105 [163].

<sup>120</sup>In the example, a reconstruction based on CLU 1, with pitches taken from CLU 2 and CLU 3, is proposed. The intonation 8b in CLU 1 is slightly different from that presented in both diastematic MSS: the accented syllable of *Reminiscere* and *Misericórdia* is given a pes (or epiphonus) EF in the latter MSS.

<sup>121</sup>CLU 1, CLU 2 and CLU 3 are in total agreement here. VAT has a torculus ACH in *ta-* and a clivis CH in *-cu-*.

<sup>122</sup>The Gradual-antiphoner of St. Maur-les-Fossés, fol. 171, does not provide modal indications. On this communion, see M. Huglo, *Les tonaires*, 409; Janka Szendrei and Richard Rybaric, *Missale Notatum Strigoniense ante 1341 in Posonio [Musicalia Danubiana, I]*, Budapest, 1982, 40; J. Jeanneteau, *Los modos*, 288-89; C. Veroli, "La revisione musicale", 61, 91-93, 131. Due to a lapse (Tetrardus for Tritus), the reference to this communion in M. P. Ferreira, "The Cluny Gradual", 211, should be disregarded.

<sup>123</sup>J. Jeanneteau, *Los modos*, 45-51, 235-36.

<sup>124</sup>This is no surprise, for, according to the monks of Solesmes, the neumatic variants show that Cambrai (Cam 4) is part of the Parisian group of sources (*Le*

*Graduel Romain*, IV/i, 243). The later MS Cam 2 is sometimes even closer to Paris than Cam 4.

<sup>125</sup>Gradual *Sciāt gentes*, on *altissimus*; communion *Qui meditatibitur*, on *tempore*; introit *Deus in nomine*, over *iudicā*; tract *Deus deus meus*, V/. *Adnuntiabitur*, on *iustitiam*.

<sup>126</sup>Intros *Ego autem*, on *lātabor* (Solesmes's *lieu variant* nr. 225); *Sicut oculi*, on *don e c*.

<sup>127</sup>Gradual *Sederunt*, over *adjuva me*.

<sup>128</sup>Introit *Reminiscere* (intonation); offertory *Bonum est*, over *psallere*.

<sup>129</sup>Communion *Qui meditatibitur*, over *die*; tract *Qui habitat*, over *longitudine*.

<sup>130</sup>Tractus *Qui habitat*, on *cāi*; introit *Sicut oculi*, on *don e c*.

<sup>131</sup>It might be significant that the Paleofrank notation in Düsseldorf D. 1 does not distinguish between two short notes in descending motion and a three-note climacus.

<sup>132</sup>*Le Graduel Romain*, IV/i, 245, 262.

<sup>133</sup>Offertories *Immittet*, on *angelus*; *Miserere*, on *secundum*.

<sup>134</sup>E. g. in the offertory *Filiæ regum*, for *honore*, the Cluniac sources have DE instead of the universal CD.

<sup>135</sup>Clu 1, 13v; Clu 2, 18v; Clu 3, 59 (117)v.

<sup>136</sup>The Cistercian version of this offertory is discussed in D. Delalande, *Le graduel*, 46-47, 63. The verses have been studied by C. Frasch, "Notation as a Guide", 186-90, 213-17.

<sup>137</sup>Robert Folz, "Le problème des origines de Cîteaux", *Mélanges Saint Bernard*, Dijon, 1954, 284-94. C. Waddell, "The Pre-Cistercian Background", 115-22.

<sup>138</sup>Some have to do with the impossibility of translating into the diatonic system the inflexions represented by the special signs of Clu 1. For instance, in the introit *Dicit Dominus ego*, over *invocabitis*, the last note of the special clivis prebipunctis in Clu 1, 95, is translated by a B natural in Clu 2, 128v, and disappears in Clu 3, 226 [281].

<sup>139</sup>Clu 1 is even occasionally quicker to raise the *mi* than Clu 2 and Clu 3, for instance in the offertory *Benedictus es Domine*, over *in labiis* (where the half-conservative version of the later sources is supported by the Breviary-Missal of Monte Amiata).

<sup>140</sup>E. g. in the communion *Qui meditatibitur*, with the words *meditatibitur in*

<sup>141</sup>E. g. in the gradual *Tecum principium*, on *pedum*, Cluny aligns itself with Benevento, Aquitaine, and a couple of other sources in having a final *mi* note instead of *fa* (see variant 16 in Chapter 4, where many other cases can be found).

<sup>142</sup>Disregard for theoretical innovation is coherent with the tenets of traditional monasticism. According to Joseph Dyer, "The Monastic Origins of Western Music Theory", *Cantus Planus. Papers Read at the Third Meeting, Tihany, Hungary, 19-24 September 1988*, Budapest: Hungarian Academy of Sciences, 1990, 199-225, "the stimuli which led to the elaboration of a music theory were not specifically monastic, but linked to Charlemagne's educational and ecclesiastical reform policies [...] monasticism itself was not a natural milieu for intellectual achievement" [199, 200].

## CHAPTER 4

## MELODIC VARIANTS

## 4.1 CLUNY, VARIANTS AND THEIR CONTEXT

## 4.2 THE MANUSCRIPTS COMPARED

## 4.3 PROVISIONAL CONCLUSIONS

## CLUNY, VARIANTS AND THEIR CONTEXT

In order to ascertain the exact place of the Cluniac tradition within the larger European panorama, the study of some chosen Introits and the examination of problematic pieces is not really enough. We have concluded that Cluny stood for received tradition in the face of the theoretical and notational developments of the eleventh and twelfth centuries. But how traditional was Cluny when compared with other allegedly conservative centers, like the cathedral of Laon or the Beneventan monasteries? How do its melodic readings, performed by presumably austere monks, compare with those sung by the royally-endowed, reputedly lavish monks of Saint-Denis? How much different from the Aquitanian or Germanic recensions were those sung at Cluny?

Answers to these questions can only be sought in a much larger comparative frame, on the basis of a representative sample of

manuscripts originating in different parts of Europe. In this sense, comparative work will of necessity push us away from Cluny and also back toward the ninth and tenth centuries; at the end, though, our understanding of its melodic tradition will find itself enhanced and completed.

The comparative analysis of musical variants is not only basic to our understanding of Cluny; it is also a crucial step in the historical interpretation of the transmission process that shaped Gregorian chant. In the Mass Proper there are, for the same pieces, numerous and manifold variants in the medieval manuscripts; most of these variants are nonetheless concerned with minor details, and are almost imperceptible when compared with those occurring in other medieval repertoires, both sacred and secular. The Gregorian chant repertory for the Proper of the Mass stands in contrast to the Office and other medieval monodic repertoires in being a single, largely unified musical collection allowing for limited textual diversification and minimal musical variation<sup>1</sup>.

It has been traditionally supposed that musical notation played a key role in stabilizing the repertory, but this assumption is no longer universally agreed upon. Among the factors leading to the revision of this assumption is the interpretation of the nature, number and distribution of the musical variants found in the manuscript tradition<sup>2</sup>. An adequate interpretation of these variants should take into account the central role of memory in the transmission of the repertoire, the ambiguous relationship between written record and aural perception, the geographic spread of the Frankish Empire and, last but not the least, the passing of time. This context, as I see it, is sufficient to

explain the nature, number and distribution of the variants; it is also compatible with the possible use of musical notation at an early stage, suggested by other indices<sup>3</sup>.

Scholars have often assumed that western neumatic notation appeared in the latter part of the ninth century<sup>4</sup>; a currently held opinion is that it dates from the first half of the ninth century, that it developed along regional lines in its second half and that the Proper of the Mass was fully notated only during its last decades<sup>5</sup>. If neumatic shapes had been trusted to oral transmission alone during three or four generations, however, small variants would have cropped up here and there according to geographical and ecclesiastical affinities. The tenacity (and shortcomings) of memory, being presumably the same for clerics learning and reproducing the repertory under similar conditions in different parts of Europe, leads us to expect that, for instance, Brittany and Benevento would disagree among themselves as much as with Laon and St. Gall. This is not the case: when compared with Laon, Brittany and Benevento, St. Gall appears very often isolated, while Brittany and Benevento agree, against Laon and St. Gall, much more than either source with any of the other two<sup>6</sup>. Oral transmission alone is thus unable to explain why regions so far apart as Brittany and Southern Italy share neumatic shapes which cannot always be found in the Lotharingian and Eastern sources, closer to the center of Carolingian reform.

This fact can be explained if we assume that at a very early stage, neumed models existed on the basis of both north-western and Beneventan traditions. According to Kenneth Levy, by the end of the eighth century Charlemagne had approved a neumed archetype of the

Gregorian Gradual with few nuance signs, whose notation came to be developed locally in further detail<sup>7</sup>. Given that Brittany became independent and Benevento adopted Gregorian chant before the mid-ninth century<sup>8</sup>, their agreement seems to imply that the chants for the Proper of the Mass were fully notated by then, as Levy proposes. On the basis of the research carried on by the monks of Solesmes<sup>9</sup>, one can reasonably suppose that the neumed model for the Beneventan recension was a primitive, Aquitanian reinterpretation of the archetype. Early contact between neighboring western Aquitaine and Brittany<sup>10</sup> would then explain a certain measure of agreement between Brittany and Benevento<sup>11</sup>. The distribution of melodic variants in this case seems to support Levy's interpretation of the evidence.

One could thus hypothesize that by the early ninth century, written exemplars with musical notation were used as memory aids in the transmission of the Gregorian Proper of the Mass. These exemplars would have mirrored a central Carolingian recension as filtered through the memory of each scribe: their contents would have been basically equivalent, but some occasional melodic differences might have already crept in. These exemplars would have used the same primitive musical notation of a gestural type in neumes of two and more notes. This hypothetical notational core would have presented either the same kind of information as its immediate predecessor of the graphic type, Paleofrank notation (including the use of quilisma and oriscus) or a slightly impoverished version of it (Paleofrank rhythmic distinctions may have been lost). The primitive gestural notational core would then become quickly diversified according to regional lines of development. Some notational schools would

eventually find ways to supplement the given neumatic information with extra rhythmic, dynamic and tonal indications, so that a century later, when the earliest surviving notated codices were written, the primitive neumatic core had been succeeded by a number of distinct neumatic families. At the same time, the use of the written record to trigger memory rather than entirely condition it would have allowed the melodic variants to multiply, often according to regional or liturgical affinities.

The above general view of the transmission of the chants for the Proper of the Mass remains partly speculative, and therefore cannot be used as a foundation for research. It alerts us, however, to a distinct possibility: that the variants encountered in the manuscript tradition belong to different chronological layers and correspond to different aspects of the transmission process. A handful of variants might go back to the Carolingian exemplars themselves; others may relate to later neumed models; still others may have nothing to do with the modern concept of copying. We should approach the manuscripts with an open mind, and decide afterwards which interpretation suits best the evidence.

#### 4.2 THE MANUSCRIPTS COMPARED

In their preparatory work for the critical edition of the Roman Gradual, the monks of Solesmes have identified, among the versions of the neumatic text considered to be the most representative of the earliest tradition, ten trends which were provisionally considered to be

more or less independent<sup>12</sup>. Nine of these ten neumatic "unities" (the exception being that represented by a Missal from Civate, Milan) were eventually allowed to be present in the comparative diplomatic transcriptions which form the working basis of the projected edition<sup>13</sup>. They are represented by a manuscript notated in unheighted neumes (except if non-existent) and a source with pitch-notation; *lacunae* in any of the principal sources are filled with the aid of its nearest relative as identified in Solesmes. The copy was done onto large tables where the manuscript readings were set out one below another, aligned vertically neume by neume and note by note. The principal sources are:

*Group/Type/Siglum* <sup>14</sup> / *Location, Library, Call number*

(i) St. Gall

neumatic:	GAL 1	St. Gallen, Stiftsbibliothek, 359 <sup>15</sup>
	MUR 3	Einsiedeln, Stiftsbibliothek, 121 <sup>16</sup>
on staff:	KLO 1	Graz, Universitätsbibliothek, 807 <sup>17</sup>

(ii) Laon

neumatic:	LAN	Laon, Bibl. Municipale, 239 <sup>18</sup>
on staff:	VAN 2	Verdun, Bibl. Municipale, 759 <sup>19</sup>

(iii) Brittany

neumatic:	CHA 1	Chartres, Bibl. Municipale, 47 <sup>20</sup>
on staff:	ROP	St. Petersburg, Pub. State Lib., O.v.I.6 <sup>21</sup>



## (iv) Aquitaine

ALB Paris, Bibl. Nat., lat 776 <sup>22</sup>

## (v) Benevento

neumatic: BEN 1 Benevento, Arch. arcivescovile, VI.33 <sup>23</sup>

on staff: BEN 2 Benevento, Arch. arcivescovile, VI.38 <sup>24</sup>

## (vi) Dijon

DIJ 1 Montpellier, Bibl. Univ., H. 159 <sup>25</sup>

## (vii) Cluny

neumatic: CLU 1 Paris, Bibl. Nat., lat 1087

on staff: CLU 2 Bruxelles, Bibl. Royale, II 3823

## (viii) Echternach

neumatic: EPT Darmstadt, Hess. Landesbibl., 1946 <sup>26</sup>

on staff: STA 1 London, British Library, add.18031-2 <sup>27</sup>

## (ix) St. Denis

neumatic: DEN 1 Paris, Bibl. Mazarine, 384 <sup>28</sup>

on staff: DEN 2 Paris, Bibl. Nat., lat 1107 <sup>29</sup>

The secondary sources used to fill *lacunae* include, for the sample analyzed here:

<i>Group/Type/Siglum</i>	<i>/</i>	<i>Location, Library, Call number</i>
(ii) neumatic: COM 2		Vercelli, Bibl. Capitolare 186 <sup>30</sup>
(iii) neumatic: FLE 1		Angers, Bibl. Municipale, 91 <sup>31</sup>
(v) on staff: BEN 5		Benevento, Arch. arcivescovile, VI.34 <sup>32</sup>
	BEN 7	Benevento, Arch. arcivescovile, VI.35 <sup>33</sup>
(vi) on staff: DIJ 2		Bruxelles, Bibl. Royale II 3824 <sup>34</sup>
(vii) neumatic: ITI 1		Roma, Bibl. Casanatense, 1907
(viii) on staff: AND 1		Namur, Musée diocés. 1 <sup>35</sup>
(ix) neumatic: DEN 4		Paris, Bibl. Nat. lat. 9436 <sup>36</sup>

Thanks to Benedictine hospitality, the analysis in this chapter was started at Solesmes in 1991 on the basis of these comparative tables, which were kindly put at my disposal by Dom Daniel Saulnier. My aim was, to begin with, the determination of points of variance (places in the repertory where the sources tend to disagree) concerning relative pitch, rather than contour alone, involving the Cluniac sources. Contrary to the work previously carried out by the monks of Solesmes, my focus was not the establishment of a neumed archetype<sup>37</sup>, but the identification in the repertory of regional characteristics or features particular to a specific liturgical affiliation in sources dated between the eleventh and the thirteenth centuries.

Accordingly, I was interested in pitch determination as well as in neumatic contour, and was prepared to confront some kinds of variants, like passing notes, which are likely to be departures from tradition. This led me to choose points of variance which seldom coincide with those selected in Solesmes<sup>38</sup>: there are only eleven coincidences<sup>39</sup>.

Given the intention to establish Cluny's position within the larger French panorama, I obviously needed more than the main neumatic sources and nine heightened versions at a time. I decided therefore to add to the twenty-five manuscripts listed above another thirty which would enable me to carry out a more significant comparative work. In selecting them, I attempted to serve my particular interests, while honoring the general purpose of presenting a balanced choice of sources. The result is necessary imperfect and, to some extent, arbitrary. French sources are privileged; but this study being concerned mainly with Burgundian monasticism and its extensions, I feel justified in this option. I include nonetheless, on a more or less permanent basis, the Roman/Franciscan tradition and an additional "Eastern" manuscript on staff. Iberian sources were also consulted on account of their liturgical relation to Cluny and Southern France. Additional neumatic sources were restricted to those somehow related, or geographically close, to Cluny or to the central northern French tradition.

The sources can be divided into two groups: those that are more or less continuously compared throughout the whole sample of points of variance, and those that appear only at some junctures. The first group comprises twenty diastematic sources which together represent

eighteen to nineteen independent melodic versions<sup>40</sup>, thus duplicating the information available at Solesmes. To these sources three manuscripts representing the Cistercian Bernardine version were added<sup>41</sup>. The second group includes the neumatic versions, which, by their own nature, were taken into account only sparingly, and a number of diastematic manuscripts. Some of the latter are substantially lacunose or incomplete; others are used in the Solesmes tables to fill *lacunae* or are included in this chapter to confirm or disprove the uniqueness of some readings.

First, a few words about four of the sources listed above.

According to Jacques Froger, KLO 1 seems to have been copied from an exemplar of western origin; the melodies had to be corrected to conform with eastern musical practice<sup>42</sup>. In those places where the primitive melodic version was revised, the Solesmes monks copy its second layer, the only one clearly visible in the published facsimile. I was unable to check, against the original, the full extent of the musical revisions; Hendrik van der Werf, having thoroughly examined the manuscript, found not enough evidence to substantiate Froger's claim<sup>43</sup>. The exact provenance and notational character of KLO 1 is still under debate<sup>44</sup>. The inclusion of this manuscript in the Tables prepared by the monks of Solesmes, alongside St. Gall/Einsiedeln, is justified by its early date (mid-twelfth century) and by the Germanic character of its neumatic variants. The Austrian group of manuscripts to which KLO 1 belongs is not, however, particularly close to GAL 2/MUR 3 when compared to other eastern sources<sup>45</sup>.

ROP, presented as representative of Brittany (but located in Rouen), belongs in fact to the Norman family of Le Bec, as both the Post-Pentecost Alleluia series<sup>46</sup> and the neumatic variants in *Le Graduel Romain*<sup>47</sup> testify. The manuscript was written for a priory of Le Bec, St. Nicaise of Meulan, in the southeastern area of the Rouen diocese, not far from Paris<sup>48</sup>. It belongs nevertheless, according to the Solesmes survey of points of variance, to the Basse Normandie/Chartres group of sources<sup>49</sup>.

STA 1 comes from Stavelot in Belgium, whose liturgical observance was reformed in 938, on the initiative of the bishop of Liège, by a monk from the abbey of Gorze, near Metz<sup>50</sup>. In *Le Graduel Romain*, it is made clear that liturgical reforms inspired by Gorze did not imply the unification of liturgical books of a musical nature intended for the Mass<sup>51</sup>. The melodic identity of STA 1, as shown by its variant readings, seems to have its roots in local tradition<sup>52</sup>. This is coherent with the decentralized workings of the Gorze reform movement<sup>53</sup>. The Stavelot manuscript<sup>54</sup> was recently shown to record the same kind of minute melodic inflections called for by DIJ 1 and CLU 1<sup>55</sup>.

ITI 1 was used in this study not only to fill *lacunae*, but to supplement the information on Cluny-related centers as well. CLU 1, CLU 2 and ITI 1 have been already presented above (chapter 3).

Other sources used in this chapter and included in the Solesmes survey of chant manuscripts are:

## a) Diastematic

BEC	Paris, Bibl. Nat. lat 1105 <sup>56</sup>
CAM 2	Paris, Bibl. Nat. lat. 17311 <sup>57</sup>
CIS 9	Paris, Bibl. Nat. lat. 17328 <sup>58</sup>
ITI 3	Firenze, Bibl. Laurenziana, Ashburnham 61 <sup>59</sup>
LYO 3	Lyon 513 <sup>60</sup>
MIL 2	Madrid, Real Academia de la Historia, Aem. 18 <sup>61</sup>
NAR	Paris, Bibl. Nat. lat. 780 <sup>62</sup>
PAR 6	Paris, Bibl. Nat. lat. 15615 <sup>63</sup>
ROG 1	Paris, Bibl. Nat. lat. 904 <sup>64</sup>
SAR 1	London, B. L. add. 12194 <sup>65</sup>
TOU	London, B. L. Harl. 4951 <sup>66</sup>
YRX	Paris, Bibl. Nat. lat. 903 <sup>67</sup>
ZIG	Leipzig, Univ. St. Thomas 391 <sup>68</sup>

## b) Neumatic

BIS 1	Vaticano [Roma], Bibl. apost. vat. Borgia lat. 359 <sup>69</sup>
CAM 4	Cambrai, Bibl. Mun. 60 <sup>70</sup>
ELI	Private collection <sup>71</sup>
LYO 1	Vaticano [Roma], Bibl. apost. vat. Barberini 559 <sup>72</sup>
OTU 2	Autun, Bibl. Mun. 167 (145) <sup>73</sup>
TUR 3	Paris, Bibl. Nat. lat. 9434 <sup>74</sup>

Besides these sources, eleven more are used here that were not taken into account at Solesmes. These include an early twelfth century fragment from a primitive Cistercian Gradual; a standard Cistercian Gradual (Sanctorale) from the third quarter of the century; another

Cistercian Gradual from the late twelfth century; a Missal from the Utrecht diocese, written c. 1200; an early thirteenth century Missal from Chartres Cathedral; the thirteenth century Breviary-Missal from Lewes; two thirteenth century Franciscan manuscripts; an incomplete fourteenth century Gradual from Santa Cruz de Coimbra (Portugal); a fifteenth century Missal from Metz; and an early sixteenth century Gradual from Braga (Portugal). Except for the Missals from Chartres and Metz, all these manuscripts were consulted *in loco*<sup>75</sup>.

To each of these sources will be attributed here a *siglum* compatible with those in *Le Graduel Romain*. There are three possibilities: when the place of origin was not given a *siglum*, one is provided which does not coincide with any of the others (BRC, CON); when the place of origin was given a *siglum* but the source is unique in Solesmes's survey and therefore not numbered, a slightly different one is proposed (ULT instead of UTR, MET instead of MES) to avoid the need of supplementing the original *siglum* with a number; when the place of origin corresponds to several numbered sources, the Solesmes *siglum* is adopted and the new sources are given new numbers (CHA 3, CIS 13, CIS 14, CLU 3, FRA 4).

The Cistercian fragment, the first two folios of a volume containing an epitaph and Sermons by St. Bernard (Paris, Bibl. Nat. lat. 2546), corresponds to the reform of St. Stephen Harding (abbot between 1108 and 1134)<sup>76</sup> and can therefore be dated between 1109 and c. 1140<sup>77</sup>. Its contents depend on an exemplar from Metz copied around 1110 (thus the *siglum* MET 1). Fol. 1 contains the end of the gradual *Exsurge Domine* for the 3rd Sunday in Quadragesima, and the

tract *Ad te levavi*, incomplete; the offertory *Iustitiae Domini* (except the incipit), the communion *Passer invenit* and the beginning of the introit *In deo laudabo*. Fol. 2 includes the end of the introit *Laetare Ierusalem* for the 4th Sunday in Quadragesima, the gradual *Laetatus sum*, the tract *Qui confidunt*, the offertory *Laudate Dominum*, the communion *Jerusalem quae aedificatur* and the introit *Deus in nomine tuo*. The notation presents features typical from Lorraine (the clivis, the porrectus, the cephalicus) mixed with a French kind of punctum, the *petit point carré* (*losangé*), in French terminology<sup>78</sup>. No quilismata can be found. Clefs include C and F; B flat and B natural signs are used. The staves are approximately 124 mm wide; each page has space for ten of them. Black ink is used for the texts, red for the rubrics; initials are painted in red, light green and brown. There is a special sign for the Latin *ae*. Notation, decoration and abbreviation system all point to a Cistercian origin.

Metz was regarded, in the ninth through the twelfth century, as the birth-place (in the Frankish Empire) and the traditional guardian of authentic Gregorian chant<sup>79</sup>. Unfortunately, the sources for the Proper of the Mass that could represent Metz have been destroyed<sup>80</sup>, except for a Missal written in the fifteenth century for the Cathedral, Metz, Bibl. Mun. 12 (hereafter MET 2), which, besides the sequences, includes but a few pieces. The fact that the Cistercian fragment represents the chant tradition of Metz at the beginning of the twelfth century led us to pay special attention, in our choice of points of variance, to the pieces included therein.



The Bernardine Gradual (Sanctoral volume) is MS Oelenberg 48 in the Abbey of Tre Fontane, Rome (hereafter CIS 13). It was written before 1174. It has 107 numbered folios (approx. 25,5 x 16,5 cm), plus two additional folios at the beginning, a bifolium in the middle (56bis, 62bis) and a paper folio at the end. Folios 105-7 are additions. It comes from the Abbey of Hauterive near Freiburg (Switzerland); a later, similar volume also from Hauterive is now in Oxford, Bodleian, Lat. lit. d.5.

The Utrecht Missal (Catharijne Convent ABM 62) was recently described and analyzed by Ike de Loos<sup>81</sup>. Copied around 1200, it is limited to the Winter part of the liturgical year (Advent through Quadragesima, leading to, but not including, Easter). The initial 128 folios concern the Temporale, the remaining 20, the Sanctorale (starting with the gradual *Dilexisti* for Lucia's feast on December 13). The manuscript has several *lacunae*.

Ike de Loos compared the introits found in both DIJ 1 and the Utrecht Missal (hereafter ULT, from the old name of the town, *Ultrajectum*) in those places where, in at least one of these MSS, special melodic signs are employed (it should be however remarked that contrary to DIJ 1, which does not depend on modifications of the normal notational vocabulary to indicate minute melodic inflections, ULT has no way to represent them in neumes like the climacus or isolated notes). There are 45 Introits in this category. DIJ 1 writes special signs 105 times (corresponded by a climacus or a descending quilisma in 16 cases, which reduces the comparison to 89 signs), while

ULT has only 87. In 48 cases, the signs coincide. Loos concludes that the signs in DIJ 1 and ULT record the same musical phenomenon.

This Missal was referred to in *Le Graduel Romain*<sup>82</sup>, but was not included in the preparatory comparative work carried out in Solesmes. To judge its relative proximity to other sources in what concerns melodic tradition, I compared its readings with those of DIJ 1, CLU 2, DEN 2, STA 1 and KLO 1 in ninety points of variance. The procedure was as follows: first, among the 150 points of variance selected in *Le Graduel Romain*, ninety were chosen (nrs. 1-31, 51-79, 101-130) taking into account the main *lacunae* in the Utrecht Missal. Other small *lacunae* in the manuscript implied that ten of these had to be left out (nrs. 16, 22, 25, 26, 72, 73, 121, 124, 126, 127). In ten points more, ULT had problematic readings (special neumes in nrs. 2, 3, 9, 10, 11, 12, 13, 15, 20 and a neume crossed out in the MS in nr. 130). In five points more, one of the remaining sources could not be compared with ULT (nrs. 27, 54, 58, 59, 117). It turned out that only sixty-five points of variance could be used for comparative purposes. The concordances are, for each manuscript: CLU 2 - 19/65; DIJ 1 - 21/65; STA 1 - 23/65; DEN 2 - 25/65; KLO 1 - 50/65.

These results are largely confirmed by a random selection of twenty-five melodic points of variance which do not coincide with those of *Le Graduel Romain*<sup>83</sup>. The concordances found are: CLU 2 - 5/25; DIJ 1 - 9/25; DEN 2 - 9/25; STA 1 - 11/25; KLO 1 - 20/25. If these numbers are taken together, we see that CLU 2 is the furthest source from Utrecht (24/90), closely followed by DIJ 1 (30/90), STA 1 and DEN 2 (both 34/90). KLO 1 is undisputedly the closest source of all, by an enormous margin (70/90): it has twice as many concordances as

the next closest sources. The conclusion is that ULT is far removed from the French and French-related traditions, and belongs to the Germanic branch of Gregorian chant. ULT is, moreover, closer to the St. Gall tradition than to KLO 1: in the 65 points of variance taken into account above, KLO 1 has 50 concordances with ULT, while MUR 3 has 57. A rough comparison with the *1er sondage (lieux variants 51-150)* in *Le Graduel Romain* is possible if this result is extrapolated making 65 points of variance equivalent to 100. The concordances between ULT and St. Gall will then amount to 88/100, or "distance 12" in Solesmian terms. It is closer than UTR, a fifteenth century Missal from Utrecht (located between distances 12 and 18), which is nevertheless still counted in the Eastern family, in the periphery of the Swiss/Austrian group. It might be significant that in the mid-eleventh century, there were close contacts between Bernold, bishop of Utrecht, and the monks of St. Gall<sup>84</sup>.

The Missal from Chartres Cathedral, destroyed in 1944, was referred to in *Le Graduel Romain* but was given no *siglum*, as the Solesmes monks had no hopes of consulting it<sup>85</sup>. The surviving photographs allowed the Missal, however, to be recently published in facsimile in the series *Monumenta Monodica Medii Aevi*, just in time for its inclusion in the present survey<sup>86</sup>. It will be referred to here as CHA 3.

The Breviary-Missal from Lewes was already dealt with in the preceding chapters; it will be referred to here as CLU 3.

The Franciscan manuscripts are a Gradual from the third quarter of the thirteenth century, kept at the parish church of Carmignano (Tuscany)<sup>87</sup>, which once belonged to the friary of the Conventuals there (hereafter FRA 4)<sup>88</sup>; and a Missal datable between 1255 and 1260 now in the Vatican, Bibl. apostolica vat. Regin. lat 2049 (hereafter FRA 5)<sup>89</sup>. The inclusion of these sources is easily explainable: the manuscript used at Solesmes to represent the Roman-Franciscan tradition, FRA 1, is a late source (fourteenth-fifteenth centuries) of doubtful authority, and FRA 2, which was included among the manuscripts initially selected in Solesmes, is definitely inauthentic<sup>90</sup>; FRA 3 (mid-thirteenth century, from Salerno, now in Naples, B. N. VI. G. 38) is, on the contrary, a trustworthy Franciscan Missal, but was added to the Solesmes survey only at a late stage and therefore received little attention<sup>91</sup>. Significantly, for the points of variance 51 to 150 in *Le Graduel Romain*, it shows 6 differences relative to its closest relative, FRA 1 (not a large distance, but nevertheless more than one would expect were FRA 1 an authoritative source)<sup>92</sup>.

The importance of the Franciscan tradition lies on the fact that the Friars Minor adopted the liturgy of the papal court in 1223 (at the latest<sup>93</sup>) and accordingly based its post-1223 liturgical books on papal exemplars: a notated missal was produced in 1230 and revised in 1255; a breviary (and the corresponding antiphoner) was prepared in 1230 and revised in 1260; a gradual was published before 1254. Between 1230 and 1254, square notation was adopted, thus changing the appearance of the books; and in 1243-44, the liturgical organization and the rubrics were completely revised and adapted to

the needs of the Friars. It does not follow that the melodic tradition of the papal court was abandoned, although some revision, especially in problematic pieces, is not to be excluded. At the end of the thirteenth century, the papal court itself embraced the revised Franciscan books and imposed them in Rome, leading to the demise of Old Roman chant.

Before the general adoption of papal liturgy, the Franciscans celebrated the office according to local custom<sup>94</sup>. The Order was however centered in Portiuncula outside Assisi (Perugia) in Umbria, a region north of Rome which had close links to the papal city. In the early thirteenth century, Assisi had adopted the Office books of the papal court (the provenance of the cathedral's missal, based on Roman models, is disputed)<sup>95</sup>. Moreover, among the first friars, there had been a high-rank member of the Curia<sup>96</sup>. The virtual identity between the Roman-Franciscan choice of Alleluia versicles for the Sundays after Pentecost and that found in the eleventh-century Missal from the Florence region, Firenze, Bibl. Laurenziana, Edili 111 (=FIR)<sup>97</sup> suggests, given that the Franciscans are unlikely to have replaced the papal list by a Florentine one, either that Roman-Papal liturgy had served as a model to churches in north-central Italy long before the Franciscans made their appearance; or that a north-central Italian manuscript served as a vehicle for the late introduction in the papal court of the Frankish recension of Gregorian chant<sup>98</sup>. Either way, it can be supposed that before 1223, Franciscans in north-central Italy had already known and practiced a Gregorian liturgy akin to that found in Rome<sup>99</sup>. The decision to adopt Papal liturgy should therefore be seen as implying not a radical change, as was a century before the first

Cistercian reform under Stephen Harding, but an extension to all the friars and occasions of a single, authoritative liturgical custom.

Three sources from Portuguese archives were consulted. The first is a standard Cistercian Gradual from Lorvão (hereafter CIS 14), probably written in Alcobaça in the late twelfth century and now in Lisbon's Arquivo Nacional da Torre do Tombo, MS Lorvão 15 / C. F. 102<sup>100</sup>. Its inclusion is simply due to practical convenience (the microfilm of CIS 9 took long to arrive).

The second Portuguese source is a fourteenth century incomplete Gradual from Santa Cruz de Coimbra (a convent of Augustinian canons), now in the Biblioteca Pública Municipal do Porto, MS 830 (hereafter CON, from the Roman town *Conimbriga*, predecessor of today's Coimbra). Its inclusion is justified by the fact that it represents, to a certain degree, the tradition of Avignon as practiced by the canons of St. Ruf in 1135-40<sup>101</sup>, thus providing a geographical mid-point between Lyons and Narbonne.

The Gradual from Braga in Portugal, Arquivo da Catedral, MS 34, (hereafter BRC, from the old name of the town *Bracara Augusta*) was recently described and discussed by the present author<sup>102</sup>. It includes only Sundays and feasts. In spite of its late copying (c. 1510-15), it corresponds fairly faithfully to an exemplar written at the end of the eleventh century and adopted, c. 1100, by archbishop St. Gerald of Braga. Its liturgical filiation is complex: the basis is a south-Aquitania source (probably from a region not too far from Toulouse) transmitted through Cluniac channels. The resulting version was then adapted to the tradition of Cahors, represented by Moissac sources from before

the Cluniac reform; these were certainly brought to the Iberian Peninsula (Toledo and Braga) by, or at the request of, St. Gerald, formerly a monk from Moissac who had been its *armarius* and music teacher before he was transferred to the Moissac-dependent priory of La Daurade in Toulouse and then invited to be the *cantor* at Toledo Cathedral<sup>103</sup>.

The complete list of sources used in this chapter is presented at the beginning of the Appendix 1 (Volume 2) and summarized below. Each of these fifty-five manuscripts is here identified by its *siglum*. New *sigla* are given between square brackets. Adiastematic manuscripts were consulted only at some points; according to Solesmes convention, their *sigla* are written in bold. Codices used as substitutes are identified by a plus sign. Diastematic sources whose contents are severely restricted (BRC, CON, MET 1 and 2) and those used either to confirm readings (CIS 9 and FRA 5) or to add information at special points of variance are identified by an asterisk.

ALB	[CHA 3]	DIJ 1	LYO 1	STA 1
AND 1+	CIS 9+*	DIJ 2+	LYO 3	TOU*
BEC*	[CIS 13*]	ELI	[MET 1]*	TUR 3
BEN 1	[CIS 14]	EPT	[MET 2]*	[ULT]
BEN 2	CLU 1	FLE 1+	MIL 2	VAN 2
BEN 5+	CLU 2	[FRA 4]	MUR 3	YRX
BEN 7+	[CLU 3]	[FRA 5]*	NAR*	ZIG*
BIS 1	COM 2+	GAL 1	OTU 2	
[BRC]*	[CON]*	ITI 1	PAR 6	
CAM 2	DEN 1	ITI 3	ROG 1	
CAM 4	DEN 2	KLO 1	ROP	
CHA 1	DEN 4+	LAN	SAR 1*	

### 4.3 PROVISIONAL CONCLUSIONS

#### 4.3.1. Interpreting variants

On the basis of the 250 points of variance presented here (APPENDIX 1), it is possible to arrive, albeit in a tentative way, at an overall view of melodic evolution in the Gregorian tradition. We have encountered extremely diversified variation phenomena; the evidence seems at first impenetrable, but slowly, a few patterns of change emerge and allow us to draw a coherent picture of melodic change.

Melodic change is a dynamic concept, not a static one. It implies a distinction between primitive and derivative melodic versions. This has not been in the past few decades a fashionable scholarly exercise, in spite of Solesmes's attempts at melodic restoration<sup>104</sup>. Melodic variants assisted Solesmes in their classification of manuscript sources in view of the critical edition of the *Graduale Romanum*. As scholars increasingly expressed doubts about the historical origin of Gregorian chant and the existence of a recoverable archetype, the idea of an "original" version of the melody gave way to the idea of an "improvisatory" rendition of chant<sup>105</sup>. But the overall uniformity of written transmission seems to contradict such a notion<sup>106</sup>.

Whatever we may think about this matter, the reassessment of editorial perspectives and the scholarly debate on the transmission of Gregorian chant spurred interest on melodic variants. In recent years, a few more or less exhaustive classifications of variants found in the



Gregorian Mass proper were proposed<sup>107</sup>. From a historical point of view, a taxonomy has no value in itself, however; it is just an instrument to further understanding. To be useful, an organizing grid has to be adapted to its object. The historical object is not a thing, but a dynamic process of which we have documentary remains. The remains can be variously described, but the process can only be focused by being constructed as a complex, moving reality.

So far, the changes that have been generally acknowledged as affecting the melodic profile of Gregorian chant between the tenth and the thirteenth centuries are those relating to: 1) attempts to further tonal unity in pieces where modal coherence may appear too loose; 2) the recognition or avoidance of "displaced" semitones; 3) the pitch level of some reciting tones, and 4) the pitch level of culminating notes on the edge of a semitonal space. We have already seen above (Chapter 3) how modal considerations affected a number of pieces: some sections were transposed; intonations, cadences or particular passages were sometimes modified to fit developments in modal theory. We have also seen how chromaticism became a problem in diastematic notation. The diatonic gamut which, after Hucbald, became generally accepted in the teaching of chant allowed half steps in only three places in each octave: between E and F, between B natural and C, and between A and B flat; each of these note-pairs could bear the syllables *mi* (for the lower note) and *fa* (for the upper note) in the Guidonian system of solmization. When a half-step occurred in any other of those places, melodic change was often unavoidable. Still other kinds of change occurred that did not depend on theoretical or notational development. The reciting pitch H primitively adopted in

the third Psalm tone and compositions assigned to the *Deuterus* modal area was often raised to C, especially in northern Europe<sup>108</sup>. The substitution of a *fa* for a *mi* notes when it culminates a melodic movement is a feature typical of the North-east, allowing the identification of an East-Frankish "dialect"<sup>109</sup>.

All in all, even if the range of variation implied by the above four categories is already impressive, these kinds of change do not fully account for the wealth of melodic variants found in the manuscript tradition. Scholars who have worked with melodic variants tried to expand this rather limited grid of descriptive categories, but an adequate balance between an endless list of cases and a workable, adequate set of classes has proved difficult to arrive at.

From a theoretical point of view, the most significant work on melodic variants to date is David Hughes's<sup>110</sup>. His analysis of variant readings, based on a distinction between "trivial" and "substantive" variants and on the identification of "misreadings" versus ways of performing or hearing, enabled him to establish the regional character of "substantive" variants, and to demonstrate that medieval copyists wrote down the melodies they heard (possibly on the basis both of a written exemplar and their memory), rather than mechanically transferring the neumatic shapes they saw on their manuscript model<sup>111</sup>. His more developed taxonomic scheme (which includes the following categories: "ornamental neume", "rhythmic notation", "recitational passages", "filling-in of thirds", "redistribution of notes" [dropping one of two repeated notes found over different syllables] and "uncertainty about semitone") fails however to take into account precisely this sound-immersion, when it separates the concept of

"recitation" from the text recited; it also avoids incorporating data relative to melodic evolution, for instance when dealing with variants that involve the semitone, thus confusing phenomena as diverse as intonation formulas, the dislocation of the Deuterus reciting tone from H to C, or the East-Frankish "dialect". Establishing categories strictly "on the basis of the shapes of the readings", as Hughes explicitly does, although apparently an objective procedure, unavoidably mirrors a synchronic, visual-centered analytical outlook which obscures the historical object more than it clarifies it<sup>112</sup>.

In the following, a general theory of melodic change in the Gregorian tradition is tentatively proposed which allows for an interpretative classification of variants. It is based on a distinction, based on documentary evidence, between primitive and derivative melodic versions. Once the principles which regulate change are established, they can be called upon to clarify more ambiguous cases<sup>113</sup>.

#### 4. 3. 2 A theory of melodic change

Cumulative melodic change in a "frozen" monodic vocal repertory largely learnt and known by rote comes about through the interaction of five determining factors: (A) the mnemonic re-structuring of melodic data (which may occasionally involve some degree of melodic simplification or compression) and the economy of mnemonic integration (which favors homogeneity in tonal structure)<sup>114</sup>; (B) the tendency to increase vocal economy (which favors melodic smoothness); (C) accidents in the transmission process (mishearing,

miscopying or misinterpretation of neumes); (D) the varying effects of local performance practice and self-conscious artistry or expertise; and (E) the influence of cultural substrata.

A. Medieval singers of chant had trained, powerful memories, and were expected to reproduce accurately both the simplest and the most elaborate melodies. Every now and then, however, because memory is continuously forgetting and relearning its data, they would disregard a note of secondary importance (which may explain the slight simplification of melodic contour occurring in locations 75, 140, 169 and 249) or let a well-remembered formula absorb a more extended melodic passage (location 182). Most importantly, memory works best with clear-cut tonal structures. Increased tonal homogeneity reduces the amount of information carried by the melody and consequently lessens the thrust exerted by it on the singer's memory. This may be seen as the rationale behind the sliding of "abnormal" axial degrees to "standard" recitation tones, a process observed in locations 4, 13, 17, 24 and 33. It explains the more drastic alignment of the central Deuterus modal core with the standard eighth mode modal core, referred to above. This alignment, for which hitherto no explanation has been proposed, can be understood as a gradual assimilation of the third mode's closely knit central structure G-A-H <sup>115</sup> into an eighth mode "gapped" structure, G-A-C <sup>116</sup>.

The principle of tonal homogeneity also accounts for the substitution of core tones for secondary tones, even when this replacement widens the interval to sing, requiring extra vocal energy. This is typically what happens in the East-Frankish manuscripts, when, for instance, a torculus AHA is turned into ACA<sup>117</sup>. East-Frankish

variants of this type can be seen in locations 15, 28, 32, 51, 54, 69, 71, 104, 114, 130, 131, 150, 151, 206, 216, 219, 228, 234 and 239. The phenomenon is however, to some extent, common to northern and central France, as can be seen in locations 7, 9, 16, 42, 43, 61, 65, 68, 73, 100, 121, 189 and 193. We will return below to this topic.

**B. Increased melodic smoothness** is a consequence of the fact that reduced vocal motion requires less energy from the singer. This principle underlies general rules of melodic behavior. These rules encapsulate both pervasive and marginal tendencies: the distinction derives from their general or limited fortune in the manuscript tradition, as revealed by the present sample. Pervasive tendencies can be formulated as laws (L.); marginal tendencies can be formulated as supplementary, weak principles (W. P.).

(L. 1) If two notes in unison are followed by an ascending interval at least as wide as a third, the second note will tend to slide upwards to fill the skip: cf. nrs. 12, 29, 62, 79, 85, 102, 135, 139, 142, 146, 156, 201, 202, 214 and 247.

(L. 2) If there are three notes in succession, the first higher than the third and the second lower than both, the middle pitch will tend to slide upwards: cf. nrs. 23, 55, 86, 87, 106, 108, 109, 125, 129, 175 and 203.

(L. 3) If a note is followed by two higher notes in unison at a distance of at least a third, the middle note will tend to slide downwards to fill the skip: cf. nrs. 32, 49, 96, 99, 103 and 200.

(L. 4) If there are three notes in succession, the first higher than the third and the second higher than both, the middle pitch will tend

to slide downwards: cf. nrs. 17, 40, 44, 45, 47, 168, 176, 177, 221 and 245.

(W. P. 1) If, at an intonation, the first note is followed by an ascending interval at least as wide as a third, it will tend to slide upwards: cf. nrs. 158 and 208.

(W. P. 2) If two notes in unison are followed by a descending interval at least as wide as a third, the second note will tend to slide downwards to fill the skip: cf. nrs. 70, 95 and 185.

(W. P. 3) If there are three notes in succession, the first and the last on the same degree and the middle one higher by at least a third, the middle note will tend to slide downwards: cf. nrs. 134 and 148.

In practice, the last principle finds itself in opposition to the principle of tonal homogeneity; it is significant that it is not operative in East-Frankish manuscripts.

C. Accidents in the transmission process (other than those relating to the workings of memory) undoubtedly occurred; they account for only a small minority of variants. Some, like the substitution of a clivis for a torculus, can be interpreted as deriving from either a mishearing of that particular melodic turn or a misinterpretation of the neume on the page (cf. locations 169, 188, 238). Others, like dropping one of two pedes (location 145), may possibly be due to miscopying. Still others, like the rare melodic inversion (climacus versus scandicus) in location 213 or the disappearance of a note (substitution of a clivis for a climacus) in location 233, are conceivably due to misinterpretation of a neume: respectively a primitive vertical three-note succession or a Paleofrank oblique descending line. Taking into account the geographic

distribution of the variants, these alternatives must have originated very early in the circulation of the repertoire, possibly already in the early ninth century.

D. We should additionally consider the effects of performance practice and self-conscious artistry or expertise on melodic substance. First, there are variants which seem to be rooted in custom, independently of conscious design. This can be illustrated by the fate of the E FFF intonation in the Aquitanian MSS; the emergence of the FEF contour in central and northern French MSS; and the northern French preference for step-wise descending formations.

The E FFF intonation formula is common to Deuterus chants, notwithstanding the fact that many medieval manuscripts raise its first note on account of the principle of tonal homogeneity<sup>118</sup>. The formula is probably very ancient, for it is also found in West-Syrian chant and with the same inconsistency, i. e., both the semitonal and the unison attacks are in practical use<sup>119</sup>. ALB privileges the semitonal attack (variant locations 6, 27, 31, 39, 48, 58, 82, 89, 90, 91, 93, 107, 120, 143, 180, 197 and 237), while TOU is less consistent; YRX often raises the initial E to F. The fondness for the E FFF formula among the singers of Aquitaine may have lead to misuse of the *mi* note, as can be observed in nrs. 25, 31, 39, 173, 197 and 237, possibly also in locations 27 and 143 (for typical Aquitanian variants, see also nrs. 88, 102 and 123).

Outside Aquitaine, and especially in central and northern France, three or more repercussed *fa* notes tend to be transformed into F E F, as shown in locations 10, 22, 132, 149, 159, 187 and 191. CLU 1 shares occasionally this regional tendency (nrs. 187, 191); among the Cluniac

diastematic MSS, it is more pronounced in CLU 2 (nrs. 10, 132, 149, 159, 191) than CLU 3 (nrs. 132, 159, 187, 191).

Northern France is also very fond of filling notes in descending "gapped" melodic formations: cf. nrs. 8, 28, 30, 32, 56, 61, 67, 68, 69, 70, 72, 76, 78, 80, 84, 86, 92, 105, 115, 116, 133, 137, 167, 171, 183, 215, 236, 244 and 249. In around two-thirds of the cases, the filling note is already found in ELI. St. Denis follows ELI in almost every location, and adds a handful more. Compared with St. Denis, Cluny looks moderate: it introduces a filling note in about half of the cases (the connection of Cluny with northern France is also illustrated by locations 50, 73, 77, 225, 230 and 250, while the only significant connection with Aquitaine is in location 226; for typical Cluniac variants, see nrs. 37, 38, 39, 62, 118, 239 and 243).

Secondly, self-conscious artistry or expertise shows itself under two different aspects, often separate, sometimes converging: vocal ornamentation and musical revisionism. The expansive tendency of ornamentation, fueled by individual initiative, leaves its trace in locations 52, 74, 83, 118, 123, 145, 148, 150, 170, 219, 223, 225, 230, 232, 240 and 242. The expansion of the inherited contour is generally either unremarkable (e. g. location 74) or very moderate (e. g. locations 83, 148); it is especially noticeable in final extended melismas, where singers seem to have felt unusual freedom, bordering on self-display<sup>120</sup>. This freedom was not, however, restricted to melismas: in location 123, CHA 3 expands the number of notes in the intonation by 50%. Modern scholarship has hardly taken notice that there is literary evidence for apparently unrestrained ornamentation in the performance of chant already during the first half of the twelfth



century, at the latest<sup>121</sup>. Minor embellishments were anyway current in northern France during the tenth century, as most points of variance referred to above testify. Some of these minor melodic expansions were adopted at Cluny (locations 52, 74, 118, 223, 225, 230).

Musical revisionism can be shown to have touched, on the one hand, the relationship between melody and text, and on the other, melodic content. Passages changed in order that the syllable carrying the tonic accent clearly stands out include locations 57, 66, 71, 123, 124, 127, 128, 155, 170, 181, 225, 235 and 248, and perhaps also 144, 156, 204 and 229. Several of these revisions occur already in LAN (locations 57, 71 and 124); the tendency to put melodic emphasis on verbal accents is so widespread that it does not even spare the monks of Einsiedeln (location 181)<sup>122</sup>. Cluny did not generally adopt the revised passages (to the exception of location 71 and possibly, to some extent, location 123) and even kept, against the large majority of the MSS, an archaic, non-accentual approach to intonation formulas (cf. Ex. 8b and commentary on location 76).

Deliberate revision of melodic content was, on the one hand, dependent on changing theoretical expectations, and on the other, implied by the imposition of a strict, rigid diatonic system on Gregorian chant, which did away with its primitive tonal flexibility. Location 170 illustrates how a melodic tritone, which would have posed no problem to ninth-century Hucbald of Saint-Amand<sup>123</sup>, made some medieval cantors feel uncomfortable. More importantly, microtonal inflections, which from the outset were special enough to justify the invention of special neumes to signal the less evident of

them, posed severe problems to the copyists of diastematic manuscripts, as can be argued of locations 59 and 220 (trigon); 82 (microtonal clivis); 126, 152, 155, 207, 209, 211 and 241 (salicus); 130, 138, 182 (oriscus); and 196 (microtonal porrectus). At least as soon as the tenth century, but probably already in the ninth, chromatic notes were also conceived of as a special category which justified their being signaled by analogy with microtones, with the presence of an oriscus (nrs. 155 and 172) or a trigon (nr. 2); most of these notes did not survive the transition to diastematic notation, giving rise to additional variants in the manuscript tradition.

E. To make full sense of the evidence, one should finally take into account the influence of cultural substrata. The principle of tonal homogeneity, for instance, is not everywhere allowed to play a determining role. Since the overall conditions of transmission and performance of chant are more or less the same in Western Europe when equivalent institutional contexts are considered (a mid-sized monastery in Germany or central Italy, an important cathedral in England or southern France), the differences must be attributed to other factors. One could think of ethnic factors, but considering the ethnic heterogeneity and changeability of medieval Europe, this hypothesis raises more problems than it can possibly solve. Cultural factors are more likely to have played a role in canceling or, on the contrary, furthering any given principle at work in the repertory, thus imposing a regional pattern on melodic change.

A Gallican substratum, for instance, leaves its mark in points of variance 141 and 174 (less clearly in location 20), revealing a tension between a Greek-derived tonal architecture based on tetrachords and

pentachords and a Gallican bent for chains of thirds (or tertian tonality, in Hansen's terminology<sup>124</sup>). This Gallican substratum is especially noticeable in the Aquitanian MSS; Cluny is apparently unaffected by it.

A "Barbarian" (Celto-Germanic?) substratum seems to be a more pervasive force, for it slowly helps to displace the primitive Deuterus recitation tone from H to C in regions where Latin presence was superficial or did not leave as enduring a mark as in the Mediterranean area. The same happens with the occasional H recitation tone found in pieces assigned to the fifth and eighth modes. Generally speaking, the primitive recitation tone is only preserved in the south (Aquitaine and Benevento)<sup>125</sup>, as can be seen in nearly twenty locations (nrs. 1, 3, 11, 17, 18, 19, 60, 62, 81, 94, 98, 113, 117, 181, 190, 194, 195 and 204). In general, Cluny stands with the majority of MSS in preferring C to H, both in Deuterus chants (locations 1, 3, 19, 60, 98 and 113) and in pieces classified under other headings (locations 11, 17, 117 and 181). The typical Deuterus formula E FFF tends to be leveled everywhere, except in the south (Aquitaine and, to a lesser extent, Benevento): cf. locations 6, 48, 58, 90, 91, 93, 107, 120 and 180.

The different weight of this "Barbarian" substratum in different regions of northern Europe may also explain the geographical differentiation between East-Frankish and West-Frankish melodic "dialects". This differentiation was shown by Maria-Elisabeth Heisler to be not coincidental with, and therefore independent of, the "graphic" (melodic contour) divide between the Germanic East and the Romanic West<sup>126</sup>. In fact, the same "dialectal" phenomenon is known in both

East and West, but to different degrees: in the West it is not as pervasive as in the East, except in what once was the central area of the Carolingian political power. Cluny stands with the majority of MSS in lacking the peculiar East-Frankish readings that prefer *fa* over *mi* notes (cf. locations 15, 28, 32, 51, 54, 69, 71, 104, etc.). When some French MSS support the Germanic preference for *fa*, the Cluniac MSS, with a single exception (location 100), keep the *mi* note (nrs. 7, 9, 16, 43, 61, 68, 73, 121, 189 and 193).

Cluny can thus be seen in context as a conservative, moderate representative of a French regional subtradition of chant: it was not as ornamented or liable to substitute *fa* for *mi* notes as, for instance, St. Denis; it was not especially sensitive to word-tone relationship, as was Laon. Taking into account the East-Frankish sources, Cluny's evolutive tendencies appear to be quite modest. The unmistakable connection of Cluny with northern France implies however that, contrary to Beneventan or Aquitanian subtraditions, the H recitation tone tended to be raised to C, and the typical intonation formula E FFF changed into a simple repercussion. The real strength of Cluny as a conservative stronghold lies in its approach to the microtonal phenomenon; this important but controversial topic will be dealt with next.

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<sup>1</sup>In spite of good reasons to suppose that the overall fixity of the repertory is the consequence of a central recension arrived at and propagated by Carolingian clerics, the interpretation of both textual and musical variants allows for some uncertainty about the process of transmission. Recent contributions which presuppose some kind of written transmission starting with the Carolingians include D. Hughes, "Evidence"; Kenneth Levy, "Charlemagne's Archetype of Gregorian Chant", in *Journal of the American Musicological Society*, xl (1987), 1-30; "The Two Carolingian Archetypes of Gregorian Chant", *Atti del XIV Congresso*

della Società Internazionale di Musicologia, III, Torino, 1990, 501-4; id., "Abbot Helisachar's Antiphoner", *Journal of the American Musicological Society*, 48 (1995), 171-86 [172-76, 184-85]; Peter Jeffery, "Rome and Jerusalem: From Oral Tradition to Written Repertory in Two Ancient Liturgical Centers", *Essays on Medieval Music in Honor of David G. Hughes*, ed. Graeme M. Boone, Cambridge, Mass.: Harvard University Department of Music, 1995, 207-47 [238-40].

<sup>2</sup>David G. Hughes, "The Implications of Variants for Chant Transmission", *De Musica et Cantu. Studien zur Geschichte der Kirchenmusik und der Oper. Helmut Hücke zum 60. Geburtstag*, ed. Peter Cahn and Ann-Katrin Heimer, Hildesheim: Georg Olms, 1993, 65-73.

<sup>3</sup>K. Levy, "Charlemagne's Archetype".

<sup>4</sup>See, for instance, Eugène Cardine, "De l'édition critique du Graduel. Nécessité, avantages, méthode", *Revue grégorienne*, 29 (1950), 202-208.

<sup>5</sup>D. Hiley, *Western Plainchant*, 370-71.

<sup>6</sup>Cf. the canon of one hundred variant locations in "La tradition bénéventaine dans la tradition manuscrite", *PalMus XIV*, 60-465 [159-64].

<sup>7</sup>Kenneth Levy, "On the Origin of Neumes", in *Early Music History*, vii (1987), 59-90, and the above-quoted articles.

<sup>8</sup>Solange Corbin, "Les notations neumatiques en France à l'époque carolingienne", *Revue d'histoire de l'église en France*, 1952, 225-32, reprinted in *The Garland Library of the History of Western Music*, ed. Ellen Rosand, I, New York, 1985, 19-26 [230]; K. Levy, "Charlemagne's Archetype", 8; Thomas Forrest Kelly, *The Beneventan Chant*, Cambridge: Cambridge University Press, 1989, 18-25. T. Kelly argues, in fact, that "Gregorian chant arrived in southern Italy probably in the later eighth century" [24].

<sup>9</sup>*Le Graduel Romain*, IV/ii, 62, and *Tableau 2e sondage: lieux variants n° 1-310*. See also our points of variance 122, 153 and 204.

<sup>10</sup>This might be suggested by the relative affinity of their notational systems. Traditionally, the neume-species of Brittany has been regarded as having a "mixed" character between the Aquitanian "point-notation" and the French "accent-notation". Whatever we may think of this classification, some notational traits are undeniably similar.

<sup>11</sup>*Le Graduel Romain*, IV/ii, 62: "Le lien entre l'Aquitaine et Bénévent est indéniable . . . C'est d'Aquitaine, selon toute vraisemblance, que procède l'influence subie par Bénévent. Il est tout naturel aussi que la Basse-Bretagne (Cha), presque contiguë, en ait reçu quelques leçons neumatiques".

<sup>12</sup>*Le Graduel Romain*, IV/ii, 38-39, 64. The new, scholarly edition of the melodies begun to be prepared in May 1948: cf. J. Froger, "The critical edition", 82.

<sup>13</sup>J. Froger, "The critical edition".

<sup>14</sup>As found in *Le Graduel Romain*, II, where more information can be found about each MSS.

<sup>15</sup>From St. Gall, end of 9th century. Facsimile: *PalMus II/2* (Solesmes, 1924).

<sup>16</sup>From St. Gall or Einsiedeln, beginning of 11th century. Facsimile: *PalMus 4* (Solesmes, 1894).

<sup>17</sup>From Klosterneuburg or Passau, mid-12th century. Facsimile: *PalMus 19* (Berne, 1974).

<sup>18</sup>From the region of Laon, c. 930. Facsimile: *PalMus 10* (Solesmes, 1909).

<sup>19</sup>From St. Vanne, Verdun, first half of 13th century. Facsimile: *Verdun, Bibliothèque Municipale 759, Missale*, Padova: La Linea Editrice, 1994.

<sup>20</sup>From Brittany, 10th century. Original destroyed. Facsimile: *PalMus 11* (Solesmes, 1912).

<sup>21</sup>From Meulan, 12th century; belonged to Notre-Dame du Pré at Rouen.

- <sup>22</sup>From St. Michel de Gaillac (near Albi); second third of the 11th century.
- <sup>23</sup>From Benevento, 10th-11th centuries. Facsimile: PalMus 20 (Berne, 1983).
- <sup>24</sup>From Benevento, 11th century. The MS is incomplete: it starts at Septuagesima.
- <sup>25</sup>From St. Bénigne, Dijon (but probably written elsewhere, possibly at Auxerre), first half of the 11th century. Facsimile: PalMus 8 (Solesmes, 1901-1905). Complete transcription: Finn Egeland Hansen, *H 159 Montpellier. Tonary of St Bénigne of Dijon. Transcribed and Annotated by —*, Copenhagen: Dan Fog Musikforlag, 1974.
- <sup>26</sup>From Echternach, c. 1000. Facsimile: *Echternacher Sakramentar und Antiphonar. Vollständige Faksimile-Ausgabe im Originalformat der Handschrift 1946 aus dem Besitz der Hessischen Landes- und Hochschulbibliothek Darmstadt*, Graz: Akademische Druck- u. Verlagsanstalt, 1982.
- <sup>27</sup>From Stavelot, beginning of 13th century.
- <sup>28</sup>From St. Denis, 11th century. Facsimile: *Le Graduel de Saint Denis. Manuscrit 384 de la Bibliothèque Mazarine de Paris (IX<sup>e</sup> s.)* [Monumenta Musicae Sacrae, V], Paris: Nouvelles Éditions Latines, 1981.
- <sup>29</sup>From St. Denis, second half of the 13th century.
- <sup>30</sup>From Como (or Balerna, according to the bibliography quoted in Bonifacio G. Baroffio, "I manoscritti liturgici italiani: ricerche, studi, catalogazione. II: 1980-1988"/"I manoscritti ... III: 1980-1989", *Le Fonti musicali in Italia. Studi e ricerche*, 2, 1988, 89-134 [98]; 3, 1989, 91-118 [94]); 11th-12th centuries.
- <sup>31</sup>From St. Pierre, Angers, end of 10th century.
- <sup>32</sup>From Benevento, 11th-12th centuries. Facsimile: PalMus 15 (Solesmes, 1937-1953).
- <sup>33</sup>From Benevento, beginning of 12th century. The MS starts at January 1st.
- <sup>34</sup>From St. Bénigne, Dijon, 1228-1288.
- <sup>35</sup>From Andenne, 12th-13th centuries.
- <sup>36</sup>From St. Denis, mid-11th century.
- <sup>37</sup>E. Cardine, "De l'édition critique", 207; Jacques Froger, "L'édition critique de l'*antiphonale missarum* romain par les moines de Solesmes", *Études grégoriennes*, 1 (1954), 151-57 [153, 156]; *Le Graduel Romain*, IV/i, 12-13.
- <sup>38</sup>For the preliminary survey of 150 variants, where all the manuscripts available were taken into account, the monks of Solesmes eliminated 45 points where the variants consisted in the presence or absence of a passing note, e. g. C-B-A-G instead of C-A-G, since "plusieurs traditions locales pouvaient [combler un vide] en même temps et indépendamment, de sorte que l'accord des manuscrits sur ce point pouvait n'avoir aucun rapport avec la transmission «par tradition», et par suite ne pas donner d'indication sur la généalogie". It turned out in the present analysis that such kind of variants often indicate regional proximity (the same conclusion was reached by D. Hughes, "Evidence", 384). Another 62 points of variance where the semitone posed difficulties were also abandoned in Solesmes (cf. *Le Graduel Romain*, IV/i, 22).
- <sup>39</sup>Solesmes's nrs. 15, 22, 52, 72, 104, 191, 225, 263, 270, 271 and 299.
- <sup>40</sup>Cluny is represented by two codices, thus reducing twenty sources to nineteen versions; due to important *lacunae* in the diastematic manuscripts from Lyon and Utrecht, comparison was further restricted, at some points, to eighteen versions.
- <sup>41</sup>During the initial work toward this dissertation some research on the Cistercian tradition was carried out (and bore fruit), but before long it was clear that Cluny alone would take all the time and energy I could afford if I wanted to complete the dissertation within a reasonable time-frame. I intend to complete and present elsewhere the work on the Cistercian tradition.

<sup>42</sup>Jacques Froger, "Introduction", *Le manuscrit 807 Universitätsbibliothek Graz (XIIe siècle): Graduel de Klosterneuburg*, Berne: Herbert Lang, 1974, 7\*-42\* [9\*-10\*, 15\*-16\*, 41\*].

<sup>43</sup>H. van der Werf, *The Emergence*, II, vii.

<sup>44</sup>J. Froger, "Introduction", 19\*-39\*; Janka Szendrei, "The Introduction of Staff Notation into Middle Europe", *Studia Musicologica Academiae Scientiarum Hungaricae* 28 (1986), 303-19 [314-15]; Rudolf Flotzinger, "Zu Herkunft und Datierung der Gradualien Graz 807 und Wien 13314", *Studia musicologica Academiae scientiarum Hungaricae*, 31 (1989), 57-80 [where St. Nicholas at Passau is proposed as the origin of the MS.]; Janka Szendrei, "Linienschriften des Zwölften Jahrhunderts auf Süddeutschem Gebiet", *Cantus Planus: Papers Read at the Fourth Meeting, Pécs, Hungary, 3-8 September 1990*, Budapest: Hungarian Academy of Sciences, 1992, 17-30 [18].

<sup>45</sup>*Le Graduel Romain*, IV/i, 210, 235-36.

<sup>46</sup>There is virtual identity between the ROP and BEC, the only difference being the presence in BEC of a second versicle, *Lauda anima mea*, for Sunday XXI.

<sup>47</sup>*Le Graduel Romain*, IV/i, 208: ROP is, by far, the closest source to BEC, with only four differences.

<sup>48</sup>Marie Pascal Dickson, *Consuetudines beccenses* [*Corpus consuetudinum monasticarum*, iv], Siegburg, 1967, xii, n. 19. David Hiley, "The Norman Chant Traditions — Normandy, Britain, Sicily", in *Proceedings of the Royal Musical Association*, vol. 107 (1980-81), 1-33.

<sup>49</sup>David Hiley, "The Liturgical Music of Norman Sicily: A Study Centred on MSS 288, 289, 19421 and Vitrina 20-4 of the Biblioteca Nacional, Madrid" (Ph. D. diss., University of London King's College, 1981), 326-28.

<sup>50</sup>Michel Margue, "Aspects politiques de la «réforme» monastique en Lotharingie", in *Revue bénédictine*, XCVIII (1988), 31-61 [42-46].

<sup>51</sup>*Le Graduel Romain*, IV/i, 258.

<sup>52</sup>*Id.*, 213: among the closest relatives to Sta 1, there are manuscripts from Andenne and Liège.

<sup>53</sup>C. H. Lawrence, *Medieval Monasticism: Forms of Religious Life in Western Europe in the Middle Ages*, 2nd ed., London: Longman, 1989, 104.

<sup>54</sup>Earlier sources from Stavelot, now in Brussels's Bibliothèque Royale, are discussed in Dom Francis de Meeûs, "Pour l'édition critique du Graduel Romain", *Scriptorium*, XIV (1960), 80-97 [86-87]. A short visit to Brussels allowed me to confirm the Stavelot provenance of the late eleventh-century Gradual, MS 2031-32, fols. 120-138 (STA 2), and also the copying at Stavelot, during the twelfth century, of a few musical examples in MS 2034-35, fols. 6v-7r, 156. The tenth century Tonary in MS 2750-65, fols. 42-67 (STA 3) may have belonged to Stavelot, but the connection with Malmédy is stronger. The eleventh century Gradual fragment in MS 2695-2719, fols. 1, 248, represents a melodic tradition which does not coincide with STA 1 (cf. Tr. *Beatus vir*, Gr. *Fuit homo*) and, *pace* de Meeûs, does not include any Alleluia. On the basis of this information, it seems that in the Stavelot Abbey the musical notation used was at first of the Lotharingian type (either sophisticated, as in MS 2750-65, or rather simple, as in the original layer of MS 2031-32); that c. 1100 both Lotharingian and Germanic types were used (MS 2031-32, marginalia); and that in the course of the twelfth century the Germanic type became standard (MS 2034-35, fols. 6v-7r), being eventually adapted to the four-line staff (MS 2034-35, fol. 156, and STA 1).

<sup>55</sup>M. P. Ferreira, "The Cluny Gradual", 214-15 and Ex. 7.

<sup>56</sup>From *Le Bec*, 1265-1272. Consulted *in loco*. The Missal is incomplete: it starts with the Offertory *Reges Tharsis* in Epiphany.

- <sup>57</sup>From Cambrai, first half of 14th century. Consulted in microfilm.
- <sup>58</sup>From a northern French Cistercian convent, third quarter of 12th century. Consulted in microfilm.
- <sup>59</sup>From Tuscany, 11th-12th centuries. Consulted *in loco*.
- <sup>60</sup>From St. André, Lyon, 14th century. Consulted at Solesmes (microfilm). This Gradual starts only on the 27th of December.
- <sup>61</sup>From San Millan de la Cogolla, beginning of 12th century. Consulted *in loco*.
- <sup>62</sup>From Narbonne, 11th-12th centuries. Consulted at Solesmes (photographic reproduction).
- <sup>63</sup>From Paris (Sorbonne), 13th century. Consulted in microfilm.
- <sup>64</sup>From Rouen, 13th century. Facsimile: *Le Graduel de l'Église Cathédrale de Rouen au XIII<sup>e</sup> siècle*, Rouen, 1907.
- <sup>65</sup>From Salisbury, c. 1275. Facsimile: *Antiphonale Sarisburiense: A Reproduction in Facsimile of a Manuscript of the Thirteenth Century*, ed. Walter Howard Frere, London, 1901-24.
- <sup>66</sup>From Toulouse, 11th century. Consulted at Solesmes (photographic reproduction).
- <sup>67</sup>From Saint-Yrieix, Limoges, 11th century. Facsimile: PalMus 13 (Solesmes, 1925).
- <sup>68</sup>From St. Thomas, Leipzig, end of 13th century. Facsimile: *Das Graduale der St. Thomaskirche zu Leipzig <14. Jahrhunderts> als Zeuge deutscher Choralüberlieferung*, ed. Peter Wagner, 2 vols., Leipzig: Breitkopf & Härtel [Publikationen älterer Musik, 5-6], 1930, 1932.
- <sup>69</sup>From Besançon, 1031-1066. Consulted *in loco*.
- <sup>70</sup>From Cambrai, XIth-XIIth centuries. Consulted in microfiche.
- <sup>71</sup>From St. Éloi, Noyon, 10th century (liturgical tradition of Corbie). Facsimile: PalMus 16 (Solesmes, 1955; 2nd ed., 1989).
- <sup>72</sup>From St. Michel, Lyon, 1173-1223. Consulted at Solesmes (photographic reproduction).
- <sup>73</sup>From Autun, 11th-12th centuries. Consulted in microfiche. The codex is acephalus: it starts after Christmas, with the Introit *Dum medium silentium*.
- <sup>74</sup>From St. Martin, Tours, 11th century. Consulted in microfilm.
- <sup>75</sup>The Breviary-Missal from Lewes was also consulted in microfilm, but the volume is so tightly bound that some information can not be retrieved this way.
- <sup>76</sup>On the Cistercian chant reforms, see R. Marosszéki, *Les origines du chant cistercien*; C. Veroli, "La revisione musicale" [parts (ii) and (iii) were published in *Analecta Cisterciensia*, 48 (1992) and 49 (1993)]; Claire Maître, *La réforme cistercienne du plain-chant* [Cîteaux: Studia et Documenta, VI], Brecht: Abdij Nazareth, 1995.
- <sup>77</sup>The revision of the Cistercian antiphoner was completed between 1142 and 1147, as has been demonstrated by Chrysogonus Waddell, "The Origin and Early Evolution of the Cistercian Antiphony. Reflections on Two Cistercian Chant Reforms", *The Cistercian Spirit - A Symposium*, ed. M. Basil Pennington, Spencer, Mass: Cistercian Publications, 1970 [2nd printing: Washington, D.C.: Consortium Press, 1973], 190-223 [192-93n]. The revision of the Cistercian Gradual, according to the Preface to the revised Antiphoner, preceded it, and can therefore be thought to have been promulgated around 1140. Cf. Francisco J. Guentner (ed./trans.), *Epistola S. Bernardi de revisione Cantus Cisterciensis et Tractatus scriptus ab auctore incerto Cisterciense, Cantum quem cisterciensis ordinis ecclesiae cantare* [Corpus Scriptorum de Musica, 24], American Institute of Musicology, 1974, 40.
- <sup>78</sup>Cf. *Répertoire des manuscrits médiévaux*.



<sup>79</sup>J.-P. Kirch, "Le chant de l'église de Metz au moyen âge d'après les anciens manuscrits", *Revue musicale de Sainte-Odile* (Strasbourg), janvier-mars 1932, 8-30; D. Buenner, *L'ancienne liturgie romaine*, 56-57; Jean-Baptiste Pelt, *Études sur la cathédrale de Metz, IV: La liturgie, i (Ve-XIII<sup>e</sup> siècle)*, Metz, 1937, 129-37; Karl Gustav Fellerer, *Deutsche Gregorianik im Frankenreich*, Regensburg: Gustav Bosse, 1941, 37-48, 61; C. Waddell, "The origin", 199-201.

<sup>80</sup>Dom Jacques Hourlier, "Le domaine de la notation messine", *Revue grégorienne*, 30 (1951), 96-113, 150-58 [99-100].

<sup>81</sup>Ike de Loos, "Une particularité des notations néerlandaises du douzième siècle", paper presented at the Fourth International Congress on Gregorian Chant (Verona, 21-23 May 1991); revised and published as "Een speciale halvetoonsneum in de notaties van de lage landen in de 12e en vroege 13e eeuw", *Tijdschrift voor Gregoriaans*, 17 (1992), 27-32. A typescript description of the manuscript's liturgical contents, prepared by Ike de Loos, is available at the Catharijne Convent Museum; a revised version of it is included in I. de Loos, *Duitse en Nederlandse handschriften in de 12e en 13e eeuw* (Dissertation, Utrecht University, 19 jan. 1996), 260-65. [This thesis — according to its summary, of which I was sent a copy — is primarily devoted to an investigation of the German and Dutch musical scripts during the period of transition from staffless neumes to diastematic notation; it is mainly based on a comparison between five antiphoners from the Bamberg cathedral and an antiphoner from St Mary's chapter in Utrecht]. General description of the Utrecht Missal: W. C. M. Wüstefeld, *Middeleeuwse boeken van Het Catharijneconvent*, Zwolle/Utrecht: Waanders Uitgevers/ Rijksmuseum Het Catharijneconvent, 1993, 34; see also K. van der Horst, *Illuminated and Decorated Medieval Manuscripts in the University Library, Utrecht. An Illustrated Catalogue*, Maarssen/ 's-Gravenhage, 1989, 2, nr. 6 and 7. I am deeply grateful to Dr. Ike de Loos for the information provided and the warm reception in Utrecht, where, thanks to Helen Wüstefeld from the Rijksmuseum Het Catharijneconvent, I was able to examine the manuscript for a few days.

<sup>82</sup>Vol. II, 55, MS without siglum: Jutphaas, Bibl. van Heukelum.

<sup>83</sup>My preliminary nrs. 5, 9, 14, 17, 23, 28, 36, 37, 39, 40, 58, 74, 85, 87, 89, 98, 105, 123, 152, 155, 157, 174, 176, 183, 188.

<sup>84</sup>Johanna Maria van Winter, "Bisschop Bernold, afkomst en persoonlijkheid", in *Utrecht Kruispunt van de Middeleeuwse Kerk: Voordrachten gehouden tijdens het Congres ter gelegenheid van tien jaar mediëvistiek Faculteit der Letteren Rijksuniversiteit te Utrecht 25 tot en met 27 Augustus 1988*, Zutphen: De Walburg Pers, 1988, 13-20.

<sup>85</sup>*Le Graduel Romain*, II, 43.

<sup>86</sup>*Monumenta Monodica Medii Aevi, Band IV: Missale Carnotense (Chartres Codex 520). Faksimile. Herausgegeben von David Hiley*, 2 vols., Kassel: Bärenreiter, 1992.

<sup>87</sup>Carmignano, not far from Florence, is the place where, in 1211, Bernardo da Quintavalle founded a Franciscan convent. The primitive church was replaced, in the mid-fourteenth century, by a larger building; there we can see today the famous *Visitazione* by Pontormo (1528-30). Cf. Maria Grazia Trenti Antonelli (ed.), *La chiesa di S. Michele a Carmignano*, Carmignano: Cassa Rurale e Artigiana, 1990.

<sup>88</sup>S. J. P. van Dijk, "Sources of the Roman Gradual", *Scriptorium*, XIV (1960), 98-100. Based on this reference, I wrote to the parish priest of St. Michael of Carmignano asking permission to consult the manuscript, and eventually managed to pay a visit to the church there in February 1993, carrying a letter of

introduction from Professor Rocha of the Pontificia Università Gregoriana. On my arrival, and to my dismay, I was shown not a Gradual, but a worn-out fourteenth century Kyriale instead (MS [B], described in Kees Vellekoop, *Dies ire dies illa — Studien zur Frühgeschichte einer sequenz*, Bilthoven: A. B. Creyghton, 1978, 30-31, 211-14). The Carmignano vicar insisted that this was the only manuscript kept in his church, and even showed me an old letter from Dr. Peter Jeffery (then in Delaware) asking for a microfilm of the Gradual I was looking for, to which he had promptly replied sending him, according to his recollections, a microfilm of the Kyriale (he was obviously unaware of the confusion). He had been in Carmignano for the past thirty years, he told me; I could be sure that, had other manuscripts existed, he would have known about them. I had travelled from too far, however, to easily accept defeat, and urged the vicar to show me whatever books he had. He then invited me to follow him into another room, where he triumphantly opened a large cabinet full of books: no manuscripts could be found in there. I asked him a final question: what was there on top of the cabinet? He did not know. With the help of a step-ladder I was finally able to find, under years of dust, the oldest nearly intact authentic Franciscan Gradual (MS [C]) and a beautiful fifteenth century Franciscan antiphoner (MS [A]). The capital letters written on the back cover of the MSS are used here as call numbers. MS [A] has 372 original parchment folios, measuring approx. 25x35 cm; fols. 1-6 include a Calendar, partially erased to allow the inclusion of an "Index antifonarum pro vesperis". MS [C], measuring approx. 39,3 x 28,5 cm, includes 189 folios, of which fols. 137-49 and 167-89 are written on paper; fols. 137-49 replace presumably damaged original folios, while 167-89 are a late addition and include a few sequences. Original, sometimes inaccurate foliation can be found at the bottom of each folio (verso up to fol. 112, recto afterwards); modern foliation is entered on top. Fols. 162v to 166v were erased to allow the inclusion of late Sanctoral pieces. Fol. 95r was reproduced as plate 15 in S. P. J. van Dijk and Joan Hazelden Walker, *The Origins of Modern Roman Liturgy: The Liturgy of the Papal Court and The Franciscan Order in the Thirteenth Century*, London: Darton, Longman & Todd, 1960, 401. According to *The Origins*, 326, the contents of Carmignano [C] correspond to the earliest edition of the Franciscan Gradual (issued before 1254). A copying date in the late thirteenth century, proposed in van Dijk's "Sources of the Roman Gradual", 99, is clearly too late by paleographical criteria; his alternative dating in *The Origins*, 400 (third quarter of the thirteenth century), is preferable.

<sup>89</sup>See Robert B. Haller, "Early Dominican Mass Chants: a Witness to Thirteenth Century Chant Style" (Ph. D. diss., The Catholic University of America, 1986), Ann Arbor: U.M.I., 1991, 55 and Tables. This MS is neither mentioned in S. J. P. van Dijk, "Sources of the Roman Gradual" nor in id., *Sources of the Modern Roman Liturgy*, 2 vols., Leiden: E. J. Brill, 1963; it is also not described in S. J. P. van Dijk and J. H. Walker, *The Origins*. Its authenticity and date had therefore to be confirmed on the basis of its liturgical content, which I did. The melodic versions coincide with those in the Carmignano Gradual.

<sup>90</sup>S. J. P. van Dijk, "Sources of the Roman Gradual", 98-99.

<sup>91</sup>The Missal is discussed in S. J. P. van Dijk and J. H. Walker, *The Origins*, 239, 242-43.

<sup>92</sup>*Le Graduel Romain*, IV/i, 218.

<sup>93</sup>Kajetan Esser, *Origines et objectifs primitifs de l'Ordre des frères mineurs*, Paris: Éditions Franciscaines, 1983, 106-7.

<sup>94</sup>Octave d'Angers, "Le chant liturgique dans l'Ordre de saint François aux origines", *Études Franciscaines*, 25 (1975), 157-306 [233-36]; K. Esser, *Origines et*

*objectifs*, 106-7.

<sup>95</sup>S. P. J. van Dijk and J. H. Walker, *The Origins*, 140-44. Heinrich Husmann, "Das Brevier der hl. Klara und seine Bedeutung in der Geschichte des römischen Chorals", *Studi musicali* 2 (1973), 217-233.

<sup>96</sup>K. Esser, *Origines et objectifs*, 41.

<sup>97</sup>In FIR, the versicle for the first Sunday is missing, and there is an additional versicle, *Benedictus es domine ... et laudabilis*, for the 24th Sunday.

<sup>98</sup>The interpretation of this fact depends on our historical view of the relationship between Gregorian chant and Rome. This is a vexing question, which will not be discussed here. Recent bibliographical contributions include Helmut Huckle, "Toward a New Historical View of Gregorian Chant", *Journal of the American Musicological Society*, 33 (1980), 437-67 [440-43]; Bonifacio Baroffio, "Il canto Gregoriano nel secolo VIII", *Lateinische Kultur im VIII. Jahrhundert. Traube-Gedenkschrift*, ed. Albert Lehner and Walter Berschin, Erzabtei St. Ottilien: Eos Verlag, 1989, 9-23; Philippe Bernard, "Bilan historiographique de la question des rapports entre les chants Vieux-Romain et Gregorien", *Ecclesia Orans* 11 (1994), 323-53.

<sup>99</sup>This is confirmed by the close links between sources from Perugia, Florence, Lucca and Piacenza and those of the Roman-Franciscan liturgy in what concerns the Office: see René-Jean Hesbert, "L'antiphonaire de la Curie", *Ephemerides liturgicae*, 94 (1980), 431-59 [448-51]; Morné Bezuidenhout, "The Old and New Historical Views of Gregorian Chant: Papal and Franciscan Plainchant in Thirteenth-Century Rome", *Revista de Musicología*, 16 (1993), 883-900 [893-95]. The historical connection between Lucca and the liturgy at the Lateran basilica in Rome from 1061 onwards is discussed in S. J. P. van Dijk and J. H. Walker, *The Origins*, 71-76.

<sup>100</sup>The Gradual lacks the initial 24 folios, and its contents start therefore with Quadragesima. In the Sanctorale, the rubrics relative to feasts approved by the Cistercian General Chapter after 1190 are entered in the margins. The script is typical from the last quarter of the 12th century. Some features of the musical notation in Lorrão 15 are referred to in Manuel Pedro Ferreira, "Relatório Preliminar sobre o conteúdo musical do Fragmento Sharrer", in *Literatura Medieval: Actas do IV Congresso da Associação Hispânica de Literatura Medieval*, Vol. 1, Lisboa: Edições Cosmos, 1991 (2nd printing, 1993), 35-42. The manuscript is described and discussed in Wesley David Jordan, "An Introductory Description and Commentary Concerning the Identification of Four Twelfth Century Musico-Liturgical Manuscripts from the Cistercian Monastery of Las Huelgas, Burgos", *Revista Portuguesa de Musicologia*, Vol. 2 (1992), 57-146. This study is however marred by confused thought and factual errors; even the indexing of the manuscript is seriously flawed. The provenance of the manuscript is discussed in Manuel Pedro Ferreira, "Early Cistercian Polyphony: A Newly-Discovered Source", to be published in the *Festschrift* volume dedicated to Prof. Robert Snow.

<sup>101</sup>Pedro Romano Rocha, "Le rayonnement de l'Ordre de Saint-Ruf dans la péninsule ibérique, d'après sa liturgie", *Le monde des chanoines (XIe - XIVe s.)*, Toulouse: Privat, 1989, 193-208.

<sup>102</sup>Manuel Pedro Ferreira, "As origens do Gradual de Braga", *Didaskalia*, Vol. XXV (1995), 57-96.

<sup>103</sup>Manuel Pedro Ferreira, "Braga, Toledo and Sahagún", paper read at the International Colloquium *Fontes musicales a la Península Ibérica (ca. 1250-ca. 1550)*, held at Lleida in Catalonia (April 1-3, 1996).

<sup>104</sup>See, for instance, the Preface to the *Antiphonale monasticum pro diurnis*

horis, Tournai: Desclée et Cie, 1934, ix.

<sup>105</sup>This is the "New Historical View" of Leo Treitler and Helmut Hucke, presented and discussed in Peter Jeffery, *Re-Envisioning Past Musical Cultures*.

*Ethnomusicology in the Study of Gregorian Chant*, Chicago: The University of Chicago Press, 1992, 11-50.

<sup>106</sup>D. Hughes, "Evidence".

<sup>107</sup>J. Wasson, "Gregorian Graduals of the First Mode", Chapter 4; D. Hughes, "Evidence"; D. Justmann, "Mode-One Offertories", Chapter 3.

<sup>108</sup>Paolo Ferretti, *Esthétique grégorienne ou Traité des formes musicales du chant grégorien*, vol. I, Solesmes: Abbaye Saint-Pierre, 1938, 301-23. Joseph Gajard, "Les ré citations modales des 3e et 4e modes dans les manuscrits bénéventains et aquitains", *Études grégoriennes*, I (1954), 5-45. Eugène Cardine, "La corde ré citative du 3e ton psalmodique dans l'antique tradition sangallienne", *Études Grégoriennes*, vol. I (1954), 47-52. Luigi Agustoni, "La questione del Si e del Mi", *Studi gregoriani*, I (1985), 5-46. J. Jeanneteau, *Los modos*, 273-322.

<sup>109</sup>Also called "Germanic dialect" or "German chorale dialect". Its features are not, however, found only in German-speaking countries, nor should they be seen as originating there. On the East-Frankish "dialect", see: Antoine Auda, *Étienne de Liège: L'école musicale liégeoise au Xe siècle*, Bruxelles: Lamertin, 1923, 56-57; P. Wagner, *Das Graduale der St. Thomaskirche zu Leipzig*, II, v-xxxiv; K. Fellerer, *Deutsche Gregorianik*, 94-95; Dominicus Johnner, *Wort und Ton im Choral. Ein Beitrag zur Aesthetik des gregorianischen Gesanges*, 2. Auflage, Leipzig: Breitkopf & Härtel, 1953, 104-117; Maria-Elisabeth Heisler, "Die Problematik des "germanischen" oder "deutschen" Choral diale kts", *Studia musicologica*, XXVII (1985), 67-82; Alexander Blachly, "Some Observations on the "Germanic" Plainchant Tradition", *Current Musicology*, 45-47 (1990) [Festschrift for Ernest H. Sanders], 85-117.

<sup>110</sup>D. Hughes, "Evidence"; id., "The Implications".

<sup>111</sup>D. Hughes, "Evidence", 381-82, 391, 398; "The Implications", 67-68. The central importance of the hearing process in the transmission of Gregorian chant should be regarded as a case of "oralité mixte" (a category defined by Zumthor as one where the influence of writing is limited and external, but nonetheless real: cf. Paul Zumthor, *La poésie et la voix dans la civilisation médiévale*, Paris: P.U.F., 1984, 48-49).

<sup>112</sup>The apparent objectivity of the taxonomic method is an illusion: presuppositions are always implied in any classification of empirical data. On this subject, see Nicolas Ruwet, "Teoria e método nos estudos musicais: algumas notas retrospectivas e preliminares", *Semiologia da Música*, Lisboa: Vega, n. d., 63-108 [article originally published in French in *Musique en Jeu*, nr. 17].

<sup>113</sup>Even if it is not possible to arrive in every case at a safe conclusion about which is the primitive version, in many cases the knowledge of these principles will prove helpful.

<sup>114</sup>On mnemonic re-structuring, see Abraham Moles, *Information Theory and Esthetic Perception*, Urbana and London: University of Illinois Press, 1966, 98-102. The tendency to increased economy in tonal structure is acknowledged as a law in folk music: László Dobszay, "Folksong Classification in Hungary. Some Methodological Conclusions", *Studia Musicologica Academiae Scientiarum Hungaricae*, 30 (1988), 235-80 [252]. This law probably relates to the tendency of memory to adjust perceptive data according to regular patterns and the expectations built on them.

<sup>115</sup>Cf. Albert Jacques Bescond, *Le chant grégorien*, Paris, 1972, 155-59. The E is an essential element of the modal core, but it plays, statistically, a lesser role than

the G-A-H degrees.

<sup>116</sup>The tendency to privilege "gapped" modal cores in medieval transalpine Europe is dealt with by Hanoch Avenary, "The Northern and Southern Idioms of Early European Music. A New Approach to an Old Problem", *Acta musicologica*, 49 (1977), 27-49. Unfortunately, the all-too-quick identification of "gapped" modal cores with the north (versus continuous cores in the south, as if Greek music ignored pentatonism) leads the author, encouraged by some musicological speculations concerning the relationship between Gallican and Carolingian chant, to risky assumptions about the nature of Gregorian chant.

<sup>117</sup>On the East-Frankish "dialect", see: Antoine Auda, *Étienne de Liège: L'école musicale liégeoise au Xe siècle*, Bruxelles: Lamertin, 1923, 56-57; P. Wagner, *Das Graduale der St. Thomaskirche zu Leipzig*, II, v-xxxiv; K. Fellerer, *Deutsche Gregorianik*, 94-95; Dominicus Johnner, *Wort und Ton im Choral. Ein Beitrag zur Aesthetik des gregorianischen Gesanges*, 2. Auflage, Leipzig: Breitkopf & Härtel, 1953, 104-117; Maria-Elisabeth Heisler, "Die Problematik des "germanischen" oder "deutschen" Chordialekts", *Studia musicologica*, XXVII (1985), 67-82; Alexander Blachly, "Some Observations on the "Germanic" Plainchant Tradition", *Current Musicology*, 45-47 (1990) [Festschrift for Ernest H. Sanders], 85-117.

<sup>118</sup>J. Jeanneteau, *Los modos*, 109, 306; Fulvio Rampi, "Un contesto di divergenza melodica fra il codice Bv e i codici Al, Y", *Studi Gregoriani*, 7 (1991), 133-66.

<sup>119</sup>Henrich Husmann, *Die Melodien der Jakobitischen Kirche, II: Die Qäle Gaönäie des Beit Gazä gesungen von Archidiakon Asmar der Kathedrale Beirut* [Österreichische Akademie der Wissenschaften, Sitzungsberichte 273/4], Wien: Hermann Böhlaus, 1971, 159-60, 201-2.

<sup>120</sup>Cf. the melisma on *erimus* in the Grad. *Domine Deus virtutum*, or the melisma on *finem*, in the Offertory *Benedicam Domino*, V/. *Notas fecisti*. The MSS diverge here much more than usual. These were my preliminary variant locations (15b) and (139c); they were not retained because too many MSS failed to transcribe the melisma in full.

<sup>121</sup>Aelred of Rievaulx, *De speculo caritatis*, II, chap. XXIII (*Opera omnia*, I: *Opera ascetica*, ed. A. Hoste and C. Talbot, Turnhout, 1971, 97-99); Hugh of St. Victor, *De claustro animæ*; II, chap. XXII (J. P. Migne, P. L., vol. 176, Paris, 1880, cols. 1080-82); John of Salisbury, *Policraticus*; I, chap. VI (J. P. Migne, P. L., vol. 199, Paris, 1855, cols. 401-4; Clemens C. I. Webb, *Ioannis Saresberiensis Episcopi Carnotensis Policratici*, 2 vols., Oxford: Clarendon Press, 1909, I, 39-44). This issue requires a separate discussion, which I hope to be able to offer elsewhere.

<sup>122</sup>And also CHA 1, as revealed by Ex. 5 in D. Hughes, "Evidence", 390.

<sup>123</sup>D. Hiley, *Western Plainchant*, 449.

<sup>124</sup>F. E. Hansen, *The Grammar*.

<sup>125</sup>J. Gajard, "Les réitations modales de 3<sup>e</sup> et 4<sup>e</sup> modes". The intimate connection between the chant traditions of Aquitaine and Benevento is borne out by nrs. 122, 153 and 204 in the present sample.

<sup>126</sup>M.-E. Heisler, "Die Problematik".

## C.

### THE PROBLEM OF MICROTONES IN GREGORIAN CHANT

[When they chant, the French] combine the enharmonic diesis [...] with the diatonic genus.

Hieronymus de Moravia, c. 1280

On voit avec évidence, en lisant les auteurs du Moyen-Age [...] que pour eux le genre enharmonique n'était pas une subtilité d'école purement théorique, mais qu'ils en avaient une connaissance pratique [...] combiné avec le genre diatonique dans le chant grégorien.

Abbé F. Raillard, 1882

La portée guidonienne [...] nous empêchera probablement toujours d'accéder à la vérité complète sur les échelles primitives, les microtonalismes et le jeu des degrés mobiles.

Dom Daniel Saulnier, 1996

## Prologue : On Microtones

Writing about Gregorian chant in 1905, Dom Paul Delatte, abbot of Solesmes, proclaimed: "Ils sont sacrés ces chants, n'y touchez pas"<sup>1</sup>. This was the year that saw the first modern, official edition of Roman-Catholic liturgical music, the book containing the chants of the *Kyriale*; several other books would shortly follow<sup>2</sup>. According to the instructions set by the Pope in 1904, Gregorian chant was to be newly restored to its pristine purity and integrity according to the oldest manuscripts. The commission appointed by the Vatican to carry out this formidable task, the melodic reconstruction of the traditional liturgical repertoire in use, could not, however, agree on a basic question: whether to adhere solely to the medieval tradition as far as it could then be scientifically reconstructed, or to take also into account, in what concerned modality, the living tradition of liturgical chant. The Abbey of Solesmes, represented on the Vatican commission by Dom Mocquereau, favored the former alternative, but most members of the commission supported the latter. As a result, Solesmes had to concede defeat<sup>3</sup>. The year 1905 is then, also the year of a scientific project gone awry. "Ils sont sacrés ces chants, n'y touchez pas": could the abbot of Solesmes be referring here to the interference of ingrained custom on scientific attempts to restore chant?

In the following, the scientific view of Gregorian chant is once more upheld against ingrained custom. Chant is generally considered to be, and accordingly sung as, a purely diatonic repertoire.

Diatonism does not imply the adherence to a tempered scale, nor does it exclude slight adjustments in intonation according to melodic context. The exact size of the whole and half-steps, or of larger intervals comprising them, may vary within narrow limits. Different modes may involve not only the permutation of the same intervallic relationships, but also slight changes of these relationships.

Diatonism implies nonetheless that the scale comprises only intervals reckoned as tones, semitones or any of their possible combinations, and that in practice the semitones are always separated by a tone or a larger interval. It will be shown here that, up to the twelfth century and sometimes even later, Gregorian chant was not a purely diatonic repertoire, i. e., that it had a significant non-diatonic component.

A non-diatonic component requires either the use of non-diatonic melodic structures (the occasional presence of two semitones in a row, which would imply strict chromaticism) or the use of non-diatonic intervals (the occasional use of "neutral" or microtonal intervals). The issue of chromaticism will not be explored here. I will only attempt to demonstrate that intervals distinctly smaller than the semitone were used by themselves and conceptualized as distinct entities which could be alternated with diatonic intervals.

This is something that has been suspected or argued for in academic circles since the nineteenth century; the proposition is therefore not new. Current opinion has it, however, that "the use of microtones in Western art music is essentially a 20th-century phenomenon"<sup>4</sup>. I hope that the material presented in this dissertation will lead to a radical revision of this and similar statements.



When I refer to use of microtones, I mean "relatively extensive, self-sufficient use in traditional performance practice of intervals distinctly smaller than a semitone, conceptualized as separate entities through notational or theoretical means"<sup>5</sup>. In this somewhat narrow definition I do not include possible self-sufficient microtonal inflections in traditional practice or isolated individual performance which failed to be conceptualized through notational or theoretical means, because these inflections are historically not tangible and may have been considered non-significant. With the exception of narrowed semitones, I also chose not to take into account the intonational function of microtonal nuances (i. e., the use of microtones as modifiers of diatonic intervals), in spite of the fact, established below, that such intonation nuances did play a role in the performance of Gregorian chant and shared the same theoretical foundation as nuances resulting in non-diatonic intervals. There is some precedent for this discrimination, since the only early medieval author to mention both phenomena took care to distinguish between self-sufficient and intonational use of microtonal intervals: one is condemned, the other commended.

This narrow definition of "music with microtones" corresponds to a personal stand: I find it useful from a methodological point of view to distinguish between the self-sufficient use of microtonal intervals and their use in conjunction with diatonic intervals. In the context of Western culture, the opposition between diatonic and non-diatonic scale structures should not be passed over, even if this distinction turns out to be meaningless in other theoretical and musical contexts.

I concede that the opposition between diatonism and non-diatonism, being inherited from ancient Greek theory, is possibly not the most adequate conceptual frame for Gregorian chant either. The modern concept of "intonational variant" could be applied to the "semitone" in order to explain the distinction between two kinds of narrow interval in chant according to the modal and melodic context<sup>6</sup>. The fact is that medieval authors adopted the ancient Greek conceptual frame and used it to articulate subtle tonal distinctions in the performance of chant. Since we have no way to separate historical evidence from their theoretical filter, our investigation cannot go beyond the medieval representation of their own musical practice.

Widespread practical use of microtones is emphasized in the above definition, because the purely theoretical division of the octave into microtones, which was known to the Middle Ages (Martianus Capella states, based on Greek Aristoxenian theory, that "the *diapason* [...] has eight notes, seven steps, six whole tones, twelve semitones, and twenty-four dieses"<sup>7</sup>) is hardly, in itself, a symptom of non-diatonic usage. One should moreover keep in mind that the microtonal division of the octave and the corresponding (or purely pragmatical) intonation nuances do not imply by themselves the immediate use of microtonal intervals. This point may be illustrated by a venerable musical tradition having links with the Mediterranean world, the classical music of northern India.

In the earliest Hindustani theoretical tradition, incorporated into the thirteenth-century treatise *Sangita-ratnakara*, the octave is divided into twenty-two microtones (*shruti*), but the distance

between two successive degrees in the scale corresponds to at least two microtones (an interval slightly smaller than a Pythagorean major semitone). In actual practice the microtonal concept is operative in an intonational sense, since, for instance, a degree four microtones higher and three microtones lower than the neighboring degrees can be flattened by a single microtone. There is no hint that in early medieval Hindustani music microtonal inflexions were viewed as something more substantial than pitch-class variants of a "reference" degree; if modern tradition can be taken as a guide to early performance practice, the "reference" degree and its variant would not normally be sung in succession<sup>8</sup>.

If, according to the definition above, medieval Hindustani music would not qualify as microtonal, medieval Arab music could well represent a borderline-case. Its characteristic melodic interval is approximately of the size of a three-quarter-tone ("neutral" or "medium" second)<sup>9</sup>. This "neutral" second seems to have made its way into the Arab tradition in the early ninth century or shortly before, the earliest theoretical evidence for the use of "neutral" intervals dating from the tenth century; the influence of Persian music was one of the factors leading to their adoption<sup>10</sup>. The quarter-tone appears theoretically acknowledged as a possible melodic interval in some basic modal units already in the 13th century<sup>11</sup>. In today's practice, a "neutral" second between an E flattened by approximately a quarter-tone and a neighbor F degree may imply, in both theory and practice, roughly a quarter-tone interval between E and an adjacent lower degree D#, but this is not a common occurrence<sup>12</sup>.

There is, on the contrary, enough historical evidence to establish beyond reasonable doubt the extensive use of microtonal intervals in Gregorian chant during its first centuries of existence. This evidence has been accumulating for the past one hundred and fifty years; now, through the comparative study of early neumatic with later diastematic chant MSS and the identification of additional chant sources carrying microtonal information, a coherent picture of early microtonal practice in Western Europe can emerge.

## CHAPTER 5

### THE EVIDENCE AND ITS CRITICS

- 5.1 THE DIJON TONARY AND ITS SPECIAL SIGNS
- 5.2 THE HISTORICAL AND THEORETICAL CONTEXT
- 5.3 THE INTERPOLATION IN GUIDO'S *MICROLOGUS*, CH. X
- 5.4 CONCLUSION

#### 5.1 THE DIJON TONARY AND ITS SPECIAL SIGNS

When the famous French historian Georges Duby used his imagination to portray the Cluny monks singing Gregorian chant<sup>13</sup>, he compared them with fierce, brutal warriors desperately attempting to save more souls: "Le choral, viril, violent, brutal [...] était lancé comme un chant de guerre". Since in his own day the standard singing style in Gregorian chant was that of Solesmes —too subtle a style for a warrior's taste —Duby dissociated himself from it by denouncing "les inflexions melliflues qui sont venues de notre temps dénaturer la mélodie grégorienne"<sup>14</sup>. He could not have guessed that at Cluny itself, a chant manuscript was written which records vocal inflexions of still a subtler kind — so subtle, in fact, that the post-war generation of Solesmes monks refused to acknowledge them. If Duby

was unwilling to admit over-structured phrasing and pervading short-term dynamic shadings, his contemporaries at Solesmes were impervious to the century-old claim that medieval singers gave heed to microtones.

The use of melodic intervals smaller than the semitone in Gregorian chant, has remained an open question since the mid-nineteenth-century, when Vincent proposed to interpret the special signs in the recently rediscovered Dijon Tonary, from the early eleventh-century, as microtonal degrees (roughly quarter-tones)<sup>15</sup>.

Vincent's fundamental assumption was subsequently accepted by an impressive number of authors, who however sometimes modified his definition of microtone as (approximately) a quarter-tone to include more ambiguous intervals; one finds amongst them, in chronological order, Raillard<sup>16</sup>, Riemann<sup>17</sup>, Wagner<sup>18</sup>, Gastoué<sup>19</sup>, Gmelch<sup>20</sup>, Emmanuel<sup>21</sup>, Wolf<sup>22</sup>, Johner<sup>23</sup>, Gerold<sup>24</sup>, Sidler<sup>25</sup>, Reese<sup>26</sup>, Jammers<sup>27</sup>, Corbin<sup>28</sup>, Huglo<sup>29</sup>, Apel<sup>30</sup>, Sims<sup>31</sup>, Planer<sup>32</sup>, Hansen<sup>33</sup>, Caldwell<sup>34</sup>, Stuart<sup>35</sup>, Hiley<sup>36</sup>, Brunner<sup>37</sup>, Hughes<sup>38</sup>, Pérès<sup>39</sup>, Loos<sup>40</sup>, Ferreira<sup>41</sup> and Meyer<sup>42</sup>. A few scholars of clerical background, namely Baralli<sup>43</sup>, Bescond<sup>44</sup> and Froger<sup>45</sup>, did not accept the microtonal hypothesis. Pothier<sup>46</sup>, followed by Yasser<sup>47</sup> and Ulveling<sup>48</sup>, did not deny the existence of a special intervallic phenomenon, but excluded it from the musical domain<sup>49</sup>. Other scholars chose not to take a stand<sup>50</sup> or just ignored the problem<sup>51</sup>.

The last substantial contribution to the discussion is Dom Jacques Froger's paper "Les prétendus quarts de ton dans le chant grégorien", in which the evidence for microtonal phenomena in chant is thoroughly reviewed and finally disposed of as insufficient. This

study, being comprehensive, detailed, and passionately argued by a respected chant specialist from the famous Solesmes abbey, could not fail to be influential. It has subsequently led well-informed scholars to avoid the issue, or even to accept Dom Froger's negative conclusions<sup>52</sup>. Some observations about this article as it relates to the Dijon Tonary are therefore in order.

The Dijon Tonary was used at the monastery of St. Bénigne shortly after Abbot Maiolus of Cluny, in 990, at the request of Bishop Bruno of Langres, reformed it by placing there twelve monks and a new abbot, William of Volpiano<sup>53</sup>. It is therefore quite likely that the musical principles underlying the notation in the Dijon Tonary did not fundamentally depart from those followed at Cluny.

The Dijon Tonary includes, for almost every piece transcribed, two kinds of musical notation, which complement each other and occupy parallel horizontal spaces over the literary text. French neumes are written above, giving us information about melodic contour, the grouping of notes, and ornaments, while William of Volpiano's alphabetic notation is written below, giving us information about pitches. Amongst the letters of the alphabet (*a* to *p*, representing two octaves and a tone from A to a') there are, filling every half-step<sup>54</sup>, those special signs, inspired by Greek instrumental notation<sup>55</sup>, whose meaning has been disputed for so long (Ex. 11).

Comparison with the neumes written above the alphabetical notation shows that these signs indicate a pitch lower than the upper note of a diatonic interval of a semitone (F, B flat or C, solmized fa); everyone agrees on this point. Not everyone agrees, however, that this pitch is also higher than the lower note of the same interval (E, A

below B flat or H, solmized mi), and that, as a consequence, it is located in-between mi and fa.

In most cases, the controversial pitch (single or repeated) is arrived at by descent from a fa, and then leads up to it again. Sometimes, though, it leads to mi before returning to fa (immediately or via sol)<sup>56</sup>. There are also (rare) cases of a mi preceded by a fa and followed by a controversial pitch leading to fa again; and a few instances of a controversial pitch in-between two mi notes which are followed by, or eventually lead to a fa<sup>57</sup>. These four categories comprise almost all the occurrences of a controversial pitch in the Dijon Tonary.

The comparison with the neumes placed above the alphabetical notation makes it clear that the controversial pitch is lower than a fa, but when this pitch is preceded by, or leads to a mi, it is virtually always separated, graphically, from the mi: it generally follows fa in a binary ligature, or it may appear as a single note<sup>58</sup>. The exception is found in the Gradual *Tibi Domine*, over the word *adiutor*: a mi is followed by a controversial pitch on the first syllable and again on the second, and these correspond in the neumatic notation to two binary ascending ligatures. This was already noticed by Vincent, and has been a central argument in favor of his basic assumption: that the controversial pitch is not only lower than fa, but also higher than mi.

Dom Froger refuses to accept this as a proof: like Baralli before him<sup>59</sup>, he rightly remarks that the letter notation over *adiutor* has suffered a correction, and, without any intermediary step, proceeds to claim that it cannot be trusted. This reasoning implies, as a



necessary logical step, that a corrector's role is not that of correcting—as common sense would suppose—but that of betraying a sound primitive version. Everyone who has some experience dealing with medieval manuscripts knows that such an assumption does not stand to close scrutiny. The corrector always tries to improve the given version, clarifying it, correcting what he perceives as errors, or replacing it with another, preferable version. He may, of course, be wrong or lacking in authority, but that is a different problem. One can not assume, without further justification, that a correction is a copyist's whim. Dom Froger is well aware of this; he attempts therefore to strengthen his case by invoking the paleographical expertise of the manuscript's editor, Finn E. Hansen<sup>60</sup>. Dom Froger suggests obliquely that, according to Hansen, the *adiutor* correction belongs to the third layer of the manuscript and is thus lacking in historical authority<sup>61</sup>. The critical apparatus of Hansen's edition indicates, however, that this correction belongs most probably, although not certainly, to the first layer<sup>62</sup>. There is therefore no reason to dismiss it as irrelevant. Raillard has furthermore demonstrated, based on a comparison between the Dijon Tonary and thirty other manuscripts (nine from the St. Gall school amongst them), that this passage, with four successive *podatus* rising progressively from E to G, must have included originally a note between E and F<sup>63</sup>.

Two additional arguments in favor of Vincent's view, proposed by Gmelch, are also criticized by Dom Froger. Gmelch's arguments are: (1) the graphic placement of the controversial pitch between mi and fa in a number of diastematic passages in the Tonary's neumatic

notation, and (2) the use of a virga to signify it before a mi punctum<sup>64</sup>. Dom Froger's objections are: (1) The neumatic notation in the Tonary is only seldom and not consistently diastematic, and when it is, its precision may be doubted; since Gmelch's argument depends on diastematic precision, it has no value whatsoever<sup>65</sup>. (2) The virga is not always used in the Tonary to signify a high pitch, and therefore the scribe's preference for a virga to signify the controversial pitch before a mi is not significant<sup>66</sup>.

Concerning Gmelch's first argument, it is worth recalling that Bescond, who condemns Gmelch's interpretation of the special signs, accepts his evaluation of the notation: "c'est un fait qu'au point de vue graphique, les neumes qui surmontent les lettres diffèrent légèrement de ceux qui surmontent les signes. Très souvent, la clivis [surmontant les signes] est plus courte que celle [surmontant les lettres] qui descend plus bas"<sup>67</sup>. Yet Dom Froger is right in pointing out that Gmelch's first argument, being open to doubt, is inconclusive. Since inconclusive arguments may still be suggestive and, together with other evidence, carry some weight, the first argument knows no victor.

The same does not apply to the second argument. Froger's objection to Gmelch's reasoning evades two facts. First, the notator, in spite of his flexible use of the virga, never allows it to appear in unison with, or lower than, a following **isolated** punctum. Secondly, one of Gmelch's examples has the controversial pitch written as a virga before an isolated mi punctum. Gmelch's conclusion that the controversial pitch is higher than a mi is therefore justified.

In 1858, Abbot Raillard noticed a close correspondence between the special signs in the Dijon Tonary and the special clivis and torculus in the Cluny Gradual<sup>68</sup>. Dom Froger, who could have easily verified this correspondence in Solesmes, claimed instead, against all paleographical evidence, that Cluny's special clivis is a *virga strata*, and that the special torculus indicates a prolongation. These statements, based on a superficial similarity between the Cluniac special French neumes and two of the St. Gall neumes, can not be taken seriously for a single moment. Close comparative examination of ninety pieces from the Proper of the Mass (presented in the next chapter) reveals that among the sixty cases of *virga strata* (or *gutturalis*) supplied by the St. Gall tradition not once does the *gutturalis* correspond to a special clivis in Cluny, of which no less than 165 cases can be counted in this sample. Likewise, among the 38 occurrences of the special torculus in Cluny, only once do the St. Gall sources have a corresponding extended torculus.

Dom Froger's refusal to accept the microtonal explanation is not motivated by the defense of an alternative hypothesis; in fact, he is unable to explain the Tonary's special signs. According to Dom Froger, their use seems not to follow any rule. Baralli had remarked that one cadence uses systematically a special sign as its second note, thus pointing to formulaic procedures<sup>69</sup>; but the Deuterus cadential formulas analyzed by Dom Froger do not show any regularity in the use of the controversial signs. He confesses that "cette inconstance dans l'emploi des symboles est très gênante pour l'étude de leur fonction". He then refers to the double hypothesis proposed in passing by Bescond —that the signs could have had both a "modal"

and a "rhythmic" function<sup>70</sup>. After careful analysis, Froger concludes that the special symbols have nothing to do with modality. He suggests, on the contrary, that they could have to do with rhythmical prolongation; but he is well aware of the suggestion's weaknesses. First, as he himself implies, one would have to accept that the symbols are inconsistently used<sup>71</sup>; in addition, one would have to accept that the rhythm supposedly recorded by these symbols goes against the rhythmic tradition unanimously recorded by the oldest extant codices (from Laon, St. Gall, etc.)<sup>72</sup>. One would have also to explain why these symbols appear only in semitonal contexts. Finally, a reason would have to be found to explain their restriction to the lower note of a semitonal space. Although Dom Froger does not mention it, one would also need to explain why rhythmic symbols would appear in the midst of alphabetical pitch-notation. It is difficult to deny that these conditions are too much of a burden for the rhythmical hypothesis not to sink under their weight<sup>73</sup>.

## 5.2 THE HISTORICAL AND THEORETICAL CONTEXT

### 5.2.1 The Greek heritage

To evaluate medieval theoretical and notational evidence for the use of microtones, it is important to be aware of what had been written about them in the ancient corpus of classical Greek music theory. Greek theoretical concepts were the only ones available to the Latin Middle Ages for dealing with such an issue. It is debatable

whether before the Carolingian era the classical texts dealing with music had had any influence in shaping the chant repertory, or had been simply ignored. One could plausibly argue that, until ninth-century Frankish theorists rediscovered these texts, and began glossing and interpreting them in relationship to chant, it had little or nothing to do with them. Christian music could however owe a more oblique, distant debt to Late Antique music, and these writings are our main access to it. The classical heritage seems to be primarily a theoretical one, but we should keep in mind that the first centuries of Christian worship were centered in a Hellenized Eastern Mediterranean, and that Hellenistic music had a deep influence on Roman music<sup>74</sup>. Greek musical traditions may have had, therefore, a lasting even if limited effect on early Christian liturgy. The musical style of the earliest notated Christian hymn (third century) stems from Hellenic culture<sup>75</sup>. Greek and Syrian presence in Italy<sup>76</sup> (as late as the early eleventh-century, Guido of Arezzo refers to people who receive musical instruction from Greek teachers<sup>77</sup>), and early Byzantine influence on Western liturgical traditions<sup>78</sup>, are also factors which may have left an imprint on Gregorian chant, even if this is not likely to be easily traced. Unfortunately, not much is known about Hellenistic music as practiced at the beginning of our era; that much has to be largely derived from the information given by both ancient and late theorists.

Three musical theorists are especially important in this respect. The earliest one, the mathematician Archytas (who lived in the first half of the fourth-century B.C.), was a contemporary of Plato and an exponent of the Pythagorean school. We have access to his doctrine

only through the tradition established by his disciples, as transmitted by Ptolemy<sup>79</sup>. Next is Archytas's biographer, the slightly later Aristoxenus, who was a distinguished disciple of Aristotle; his theoretical work was accordingly meant to describe reality according to empirical experience. Aristoxenus asserted that the ear was the sole meaningful criterion as far as the identification of musical intervals was at stake. His attitude contrasted with that of the Pythagorean authors, who valued music as a mirror of the hidden mathematical structure of the universe, and therefore were not necessarily bent on describing actual musical practice<sup>80</sup>. Some scholars claim however that Aristoxenus' musical theories betrayed his philosophical intentions<sup>81</sup>. Last in chronological order, but between the Pythagoreans and Aristoxenus in philosophical outlook, was the famous astronomer Claudius Ptolemy, who lived in the second century A. D. and who, in Lukas Richter's words, "adopted as his basic postulate the need for the two criteria of judgment, reason and empirical observation, not to contradict each other". Ptolemy believed sense perception to be fallible, but criticized the Pythagoreans for frequently postulating theoretical relationships with no correspondence in reality<sup>82</sup>.

Although less oriented to abstract mathematical patterns than the Pythagoreans were, both Aristoxenus and Ptolemy used their enviable intellectual powers to propose comprehensive theoretical systems which include the description of different tetrachordal divisions, and it may be suspected that in so doing, some empirically observable data were over-rationalized. When these very different authors agree, however, it is likely that actual musical facts are being

talked about, facts which spanned a period of at least six centuries (between the fourth-century B.C. and the second-century A. D.) and that, being so strongly rooted, may have survived beyond the time of Ptolemy. This evidence should be nevertheless considered in the light of Aristoxenus's and Ptolemy's explicit remarks about music as practiced in their respective time-periods.

Generally speaking, Greek music recognized three genera, the diatonic, the chromatic and the enharmonic, which differ by the kinds of tetrachords associated with them. In Ancient Greece, artistically elaborate music was normally of the enharmonic type. The chromatic genus gained ground at its expense between the fourth and the second centuries B. C. During the Roman period, the diatonic genus became predominant. The chromatic and the enharmonic (especially the latter) tended to disappear at the end of the Antiquity, or so we are told<sup>83</sup>.

In Greek theory, a tetrachord is formed by two invariable notes, a perfect fourth apart, to which two moveable notes inside are added; the notes of the tetrachord are generally presented in a descending order and, contrary to degrees in a reference-scale, represent only relative pitch. The diatonic genus roughly corresponds to an A-G-F-E tetrachord; the chromatic, to an A-G $\flat$ -F-E tetrachord; and the enharmonic to an A-F-F'-E tetrachord (in which the second "F" is lowered about a quarter-tone). The cluster of three notes close together at the bottom of the of the enharmonic and chromatic tetrachords was known as the *piknon*.

This preliminary sketch conceals, however, important facts. First, the quarter-tone in the enharmonic genus was measured

differently by different theorists<sup>84</sup>, and the other intervals used were not strictly equivalent to the corresponding ones in the modern tempered scale. Second, the lowered "F" (F<sup>-</sup>) may have been used as an alternative shading of F and have been approached directly from another note. Third, depending on the nuances of intonation chosen for the middle notes of the tetrachord, the diatonic and chromatic genera assumed different guises recognized by some theorists as separate varieties. Finally, these varieties could be combined, and the genera themselves could be mixed according to conventional rules<sup>85</sup>.

The diatonic division of the tetrachord, according to Archytas, had as its smallest interval (between F and E) that defined by the proportion 28:27 (63 cents), which is roughly equivalent to 3 tenths of a tone (61 cents). Ptolemy distinguished several diatonic varieties, but according to him, the most common was that spoken of by Archytas; Aristoxenus also recognized its legitimacy, although he chose to describe the smaller interval as a third of a tone. The basic form of the diatonic tetrachord seems therefore to have been composed of, approximately, the descending intervals 1+1,2+0,3 of a tone<sup>86</sup>. This is indirectly confirmed by the notation of the diatonic tetrachord in the Alypius tables (fourth-century A. D.)<sup>87</sup>. The Pythagorean division of the diatonic tetrachord (roughly 1+1+0,45) was also recognized by Ptolemy. Different diatonic divisions of the tetrachord could be mixed, and thus the Pythagorean division was often combined with the common one<sup>88</sup>.

According to Archytas, the chromatic genus also had as its smallest interval three tenths of a tone. Aristoxenus and Ptolemy recognize the legitimacy of its use in chromatic varieties. But Ptolemy



adds that the only chromatic variety in practical use in his own time, combined with the diatonic, is approximately the one which Aristoxenus had described as a "soft" diatonic variety, with a middle interval of three-quarters of a tone between a flattened "G" and F<sup>89</sup>.

### 5. 2. 2 Middle-medieval references to microtones

#### 5.2.2.1 The transmission of Greek harmonic theory

The Western Middle Ages had access to Greek harmonic theory mainly through a handful of influential late Latin works: *De die natali* by Censorinus (third century)<sup>90</sup>; *Commentarii in somnium Scipionis* by Macrobius (fl. c. 400)<sup>91</sup>; *De nuptiis Philologiæ et Mercurii* by Martianus Capella (fl. c. 410-439)<sup>92</sup>; the commentary on Plato's *Timæus* by Calcidius (fl. c. 500)<sup>93</sup>; *De institutione musica* by Boethius (c. 480-524)<sup>94</sup> and the *Institutiones* of Cassiodorus (c. 485/90 - c. 580)<sup>95</sup>. In the following, I will focus on the information about the Greek enharmonic genus and its characteristic intervals transmitted by these sources.

Censorinus and Cassiodorus do not discuss Greek tetrachordal theory. Macrobius refers to the three Greek harmonic genera, but adds that the enharmonic genus is no longer used because of its difficulty; he also says that the early Pythagoreans called the semitone *diesis*, the name having been afterwards reserved for an interval smaller than the semitone<sup>96</sup>. Calcidius echoes this last

remark, when he states that in former times *diesis* denoted the semitone<sup>97</sup>.

In Martianus Capella's book, which was widely read during the Middle Ages, the tetrachordal divisions of Aristoxenus can be found, and with them the concept of quarter-tone; the *diesis* is generally taken to mean a quarter-tone — its basic value in the enharmonic genus — although a third of a tone (the chromatic *diesis*) and  $\frac{3}{8}$  of a tone are also acknowledged as legitimate possibilities<sup>98</sup>.

In Boethius's *De institutione musica* the medieval reader could find Archytas's and Aristoxenus's divisions of the tetrachord (the chapters which were to expound Ptolemy's divisions are not extant). Archytas's divisions are frontally criticized for neglecting the sense of hearing; Ptolemy's criticism of it is also reported. Aristoxenus's divisions are not directly commented upon, but Boethius reports two of Ptolemy's criticisms (which the medieval reader would probably have found irrelevant): the artificial distinction between the soft and hemiolic chromatic genera, and the acknowledgment of only two diatonic divisions. Boethius's own divisions (one for each genus) are also given, although impaired by the corrupt transmission of the text and of the corresponding diagrams<sup>99</sup>. The structure of the Boethian enharmonic genus is derived from the diatonic division of the monochord, with the *dieses* created by dividing the semitone into two halves. The *diesis* is said to be half of the semitone, or more precisely, half of the minor semitone; Boethius also describes the enharmonic *diesis* as a quarter-tone and refers to the use of the term by the early Pythagorean Philolaus to mean a minor semitone<sup>100</sup>. The

medieval glosses of *De institutione musica* reinforce the predominant definition of *diesis* as half a semitone or a quarter-tone<sup>101</sup>.

Medieval authors active between the ninth and the twelfth centuries who refer to the Greek enharmonic genus include Martianus Capella's commentator Remigius of Auxerre (fl. c. 860-908)<sup>102</sup>, Gerbert of Aurillac (late tenth-century)<sup>103</sup>, Odorannus of Sens (985-1046)<sup>104</sup>, Berno of Reichenau (d.1048)<sup>105</sup>, Aribio (fl. c. 1068-78)<sup>106</sup>, Heinricus of Augsburg (d. 1083)<sup>107</sup>, Frutolf of Michelsberg (late eleventh-century)<sup>108</sup> and a fair number of anonymous: the Pseudo-Hucbald<sup>109</sup>, the Pseudo-Remigius<sup>110</sup>, the Pseudo-Adelbodus<sup>111</sup>, Gerbert Anonymous II<sup>112</sup> and the authors of the following texts: *Boetius vir eruditissimus*<sup>113</sup>; *De mensura monochordi*<sup>114</sup>; *Dulce ingenium*<sup>115</sup>; *In primis divide*<sup>116</sup>; *Monocordum divisurus*<sup>117</sup>; *Quaestiones*<sup>118</sup>; *Quinque gradus simphoniarum*<sup>119</sup>; *Si volueris*<sup>120</sup>; *Studiosis*<sup>121</sup>; *Totam tabulam divide*<sup>122</sup>; *Tractatus de intervallis*<sup>123</sup>. Heinricus, Frutolf and the author of the *Questiones* treatise echo Macrobius' comment about the desuetude of the enharmonic genus.

Remigius, Regino of Prüm (c. 900)<sup>124</sup>, Odorannus, Berno, Frutolf, the Pseudo-Adelbodus, Gerbert Anonymous III<sup>125</sup>, the *Boetius vir*, the *Dulce ingenium*, the *Monocordum divisurus*, the *Quaestiones*, the *Si volueris*, the *Studiosis*, the *Tractatus de intervallis* and an interpolation in chapter X of Guido's *Micrologus*<sup>126</sup> speak of the *diesis* as half a semitone or a quarter-tone. The chromatic *diesis* (a third of a tone) is only referred to by Remigius and the *Dulce ingenium*; Regino mentions the third of a tone, but does not call it a *diesis*. The Pythagorean association between *diesis* and the minor semitone is mentioned by Regino, the Pseudo-Odo<sup>127</sup> and the *Quaestiones* as a

remote historical fact. Remigius misinterprets the interval of  $3/8$  of a tone acknowledged by Martianus Capella as  $3/6$  of a tone, and as a consequence the *Dulce ingenium*, which depends on Remigius, assumes the existence of a diatonic *diesis* equivalent to the semitone. This equivalence was however only established as the standard meaning of *diesis* in the second half of the thirteenth century<sup>128</sup>; between the ninth and the twelfth century, *diesis* was generally taken to mean approximately half of a semitone, as in late Antiquity.

Gerbert, Odorannus, Berno, Frutolf, the Pseudo-Hucbald, the Pseudo-Adelbodus, the *Boetius vir*, *De mensura monochordi*, the *Dulce ingenium*, the *In primis divide*, the *Monocordum divisurus*, the *Quæstiones*, the *Si volueris*, the *Studiosis*, the *Totam tabulam* and the interpolator of *Micrologus* present or acknowledge the enharmonic division of the monochord by way of illustration or explanation of its measurement<sup>129</sup>. Odorannus, Berno, Frutolf, the Pseudo-Adelbodus, the *Boetius vir*, the *Dulce ingenium*, the *Monocordum divisurus*, the *Quæstiones*, the *Si volueris*, the *Studiosis* and the interpolator of *Micrologus* relate the concept of enharmonic *diesis* to practical instructions on how to find it in the monochord. The division of the semitone into two *dieses* allowed of different solutions, as revealed by medieval diagrams intended for the monochord<sup>130</sup>. According to Berno, Frutolf, the *Boetius vir*, the *De mensura monochordi*, the *In primis divide*, the *Monocordum divisurus*, the *Quæstiones*, the *Si volueris*, the *Studiosis* and the *Totam tabulam*, however, an easy and normal way to divide the semitone was to draw a line in the middle of the corresponding space, dividing it into two equal parts, as

proposed by Boethius. The interpolator of the *Micrologus* follows a different, more intricate method.

#### 5.2.2.2 Microtones and medieval chant

In 1882, abbot Raillard stated: "On voit avec évidence, en lisant les auteurs du Moyen-Age [...] que pour eux le genre enharmonique n'était pas une subtilité d'école purement théorique, mais qu'ils en avaient une connaissance pratique"<sup>131</sup>. In a recent survey of medieval texts on the monochord, Christian Meyer agrees: "Le nombre des témoins et les indications de construction que donnent ces écrits ne permettent [...] pas d'y voir de simples préoccupations de théoriciens [...] De toute évidence [...] la connaissance des microintervalles caractéristiques du genre enharmonique [...] ne se bornait pas à un savoir livresque"<sup>132</sup>. A tenth-century anonymous gloss on Boethius's *De institutione arithmetica* which seems to imply that music sung by civilized men in Continental Europe falls into the "sweetest" enharmonic genus<sup>133</sup> and a remark by Berno, who also attributes "sweetness" to the enharmonic genus and, in contrast with the chromatic genus, does not exclude it from ecclesiastical practice, allow us to speculate about the connection between the enharmonic genus and chant<sup>134</sup>. According to Raillard, Berno is suggesting that although the basis of Gregorian chant is the diatonic genus, the harshness of pure diatonism is tempered in chant by a moderate, unobtrusive mixture with the enharmonic genus<sup>135</sup>. The relationship of the enharmonic

division of the monochord, or, more precisely, of the *dieses* which characterize it, to actual music is however, to my knowledge, touched upon by only three, or possibly four medieval authors: Isidore of Seville, the Pseudo-Remigius, the interpolator of Guido's *Micrologus* and Hieronymus de Moravia.

St. Isidore, in his influential *Etymologiarum* (early seventh-century), explains that "diesis consists of certain intervals and diminutions of modulation and interpolations between one sound and another"<sup>136</sup>. In the absence of Greek theoretical jargon, he seems to be referring to actual musical phenomena, possibly known to him from Hispanic chant; he may have had in mind both semitonal and microtonal inflections, but the definition is inconclusive as to whether the description was based on ancient theory or contemporary practice.

The Pseudo-Remigius says that the enharmonic genus is found among the Romans (possibly in the sense of civilized people as opposed to Barbarians): "The enharmonic, which the Romans use, is soft and wavering, almost persnickety"<sup>137</sup>. J. Smits van Waesberghe thinks that the author is referring here to Gregorian chant<sup>138</sup>. We are left to wonder what kind of chanting the author had in mind; it is likely that he is referring here not to tetrachordal structure, since the Greek enharmonic genus was no longer practiced as such, but to use of microtones, which would justify the analogy with the enharmonic rather than with the chromatic genus and the reference to a wavering, *minutiae*-inclined style of singing.

In the eleventh century, the very period when staff lines were being introduced, forcing precise tunings of the voice into

consideration, the interpolator of Guido's *Micrologus* refers disapprovingly to the actual melodic use of microtones in Gregorian chant, implying therefore the existence of the phenomenon. But since this text has been interpreted in different ways by different authors, it requires a careful, detailed analysis, presented in the next section.

Finally, around 1280, the Scottish Dominican Hieronymus de Moravia states plainly that the French, contrary to other nations, are fond of mixing non-diatonic intervals with ecclesiastical music, particularly through the association of the enharmonic *diesis* with the diatonic genus<sup>139</sup>. This statement bears witness to the endurance of non-diatonic performance practice in France, in spite of the fact that by the thirteenth century, it did not have notational or contemporary theoretical support.

### 5.3 THE INTERPOLATION IN GUIDO'S *MICROLOGUS*, CH. X

#### 5.3.1 Date and attribution

The interpolated text in Chapter X of Guido d'Arezzo's *Micrologus* was thought by its nineteenth-century translators R. Schlecht and M. Hermesdorff to be an early thirteenth-century addition (Schlecht) or from the time of mensural polyphonic music (Hermesdorff), which is basically the same line of interpretation<sup>140</sup>. Its manuscript tradition, as presented in J. Smits van Waesberghe's critical edition of the treatise, disproves this claim, since it is found in two copies written c. 1100 —as early as one could expect for a

treatise dating from the first half of the eleventh-century. Possibly on account of its contents and not of its early attestation, A. J. H. Vincent doubted that the passage was an interpolation at all<sup>141</sup>. But the fact that it does not appear in the two eleventh-century sources of the *Micrologus*, and that two alternative insertion points are recorded in the manuscript tradition, seems to confirm that this was not part of the original text. The contents do not contradict Guidonian doctrine; in fact, they presuppose it, as will shortly be seen. The interpolation was probably written by someone educated in a milieu close to Guido's, for two of the earliest manuscripts which include the interpolation present the example in Italian neumes of the kind found, for instance, in Guido's letter to Michael, as copied around 1140 (München, Bayerische Staatsbibliothek, Clm. 14523, fol. 130)<sup>142</sup>. The original neumes were, as I will attempt to show, probably written on a four-line stave with letter-clefs, a Guidonian system which, considering the eleventh-century date of the interpolation, points to a north- or central Italian origin<sup>143</sup>. The possibility remains furthermore that the interpolation was written by Guido d'Arezzo himself at a certain stage, maybe in his later years, as a response to the questions posed by early readers or advanced students; the phrase "we advise the reader not to think that we are rambling just because at first we did not address this topic" (*Admonemus vero lectorem ne existimet nos desipere, eoquod primo omisimus ista scribere*) strongly suggests it. This remains, however, a hypothesis; this passage could also have been introduced by an early editor in order to give the interpolation an authority it lacked. At any rate, the interpolated text was certainly written between 1030 and 1080, and



deserves therefore to be counted as one of the earliest and most significant testimonies on the performance practice of Gregorian chant.

### 5. 3. 2 Early commentaries, editions and translations

Chronologically, the first known written discussion of Chapter X dates from the late eleventh century. An anonymous medieval commentary on Guido's *Micrologus*, including Chapter X (without the interpolation), written approximately between 1070 and 1100 presumably at Liège, can be found in a modern edition by J. Smits van Waesberghe under the title *Commentarius in Micrologum Guidonis Aretini*<sup>144</sup>. Subsequent discussions had to await the printed modern editions of the treatise, which include the interpolation: those by M. Gerbert<sup>145</sup>, A. M. Amelli<sup>146</sup> and the critical edition of J. Smits van Waesberghe<sup>147</sup>. Chapter X has been translated into German twice in the nineteenth-century<sup>148</sup>, and recently, also into English<sup>149</sup> and French<sup>150</sup>. The English and French translations do not include the interpolation. This was nevertheless partially translated into French by A. J. H. Vincent (paragraphs g to m)<sup>151</sup>, F. A. Gevaert (§§ a, c, h to l)<sup>152</sup> and J. Froger (§§ a to h)<sup>153</sup>. David Hughes proposed an English translation of paragraph h<sup>154</sup>. The interpolated text has been considered by R. Baralli to be particularly obscure<sup>155</sup>; and in fact, the proposed translations vary widely at certain points. Interpretation and translation are closely tied together.

There are two versions of the interpolation. According to Waesberghe's critical apparatus, four MSS. (F1, F2, F5 and Mi2) insert

the new material between passages (10) and (11) and have an additional paragraph (o). This paragraph illustrates the preceding claim, but is lacking in the remaining six manuscripts, which insert the interpolation between passages (8) and (9) and therefore make the interpolation precede the example featuring the Communion *Diffusa est gratia*. I find the former arrangement more satisfactory, because the Communion *Diffusa est gratia* illustrates what precedes it in the main text, but not the interpolated paragraph (n).

In the following, I will present Waesberghe's edition of Chapter X on the left and an English translation on the right<sup>156</sup>. After each section, a commentary will follow. The main passages which in the past, have invited scholarly disagreement will be singled out for discussion.

### 5.3.3 Translation and commentary

#### <sup>1</sup> *Capitulum X*

#### <sup>1</sup> Chapter X

*Item de modis et falsi meli  
agnitione et correctione*

Concerning the modes, and the  
recognition and correction of false  
melody

<sup>2</sup> *Hi sunt quattuor modi vel tropi,  
quos abusive tonos nominant, <sup>3</sup>  
qui sic sunt ab invicem naturali  
diversitate disiuncti, ut alter alteri  
in sua sede locum non tribuat, <sup>4</sup>  
alterque alterius neumam aut  
transformet aut numquam  
recipiat.*

<sup>2</sup> These are the four modes or tropes  
which people wrongly call tones, <sup>3</sup>  
and which differ from one another  
by (their) natural diversity in such a  
way that one does not give its place in  
its own domain to another <sup>4</sup> nor can  
one ever alter or take the *neuma* of  
another.

The opening sentence echoes both Boethius (*modi, quos eosdem tropos vel tonos nominant*) and especially the *Musica enchiriadis* (*quattuor ptingorum vis modos, quos abusive tonos dicimus*)<sup>157</sup>. Each one of the four modes or "melodic designs" (*protus, deuterus, tritus and tetrardus*) has a definite identity given by their respective finals (their proper place) and surrounding intervals (the characteristic modal quality, expressed in the *neuma* or *noeane* formula for each).

This "natural diversity" of the modes constitutes what the anonymous writer of the *Commentarius in Micrologum Guidonis Aretini* calls the "good and truthful dissonance" (*bona dissonantia et vera*).

<p><sup>5</sup> <i>Dissonantia quoque per falsitatem ita in canendo subrepat, cum aut de bene dimensis vocibus parum quid demunt gravantes, <sup>6</sup> vel adiciunt intendentes, quod pravae voces hominum faciunt; <sup>7</sup> aut cum ad praedictam rationem plus iusto intendentes vel remittentes, neumam cuiuslibet modi <sup>8</sup> aut in alium modum pervertimus, aut in loco qui vocem non recipit, inchoamus.</i></p>	<p><sup>5</sup> Dissonance also creeps into singing by falsification in this way: either when too little is subtracted from properly measured pitches while going down <sup>6</sup> or added while going up, as bad voices do; <sup>7</sup> or when, according to the aforementioned reasoning, by going up or down more than is right, we distort a <i>neuma</i> of one mode <sup>8</sup> into another mode, or we begin in a place that does not admit a pitch.</p>
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This paragraph does not concern faulty tuning by itself, but incorrect judgment of intervals by singers, including both bad intonation and wrong notes. The author criticizes those who descend or ascend either not enough or too much, and thus arrive at pitches or impose intervallic relationships which falsify the melody, alter its modal quality, and may even lead to illegitimate transposition, making its transcription impossible. This reading does not contradict

the way the writer of the *Commentarius in Micrologum* interprets the passage: the substitution of fourths for fifths, and vice-versa, is proposed as illustration of how "bad and false dissonance" (*falsa dissonantia et mala*), i.e. undesired and unruly melodic variety, is introduced in the chant. The reasoning of the interpolator presupposes, on the one hand, that individual notes correspond to certain quantitative values which increase with increasing pitch; and on the other, that singers judge a note from the preceding one.

This passage has been diversely interpreted as referring to faulty tuning of given notes (Schlecht, Jolivet), to faulty judgment of intervals (*Expositiones*, Hermesdorff) or to both (Babb). In fact, the instability criticized by the author embraces both situations of faulty tuning and more extreme situations of bad interval judgment: wrong notes which end up in illegitimate transpositions, or substitution of intervals which change the melody's modal character. There being a single reasoning behind the criticism, a comprehensive interpretation ("faulty intonation of intervals") accords better with the context.

<sup>9</sup> *Quod ut exemplo pateat, in  
Communione "Diffusa est gratia",  
multi propterea, quod erat  
incipiendum in .F. uno tono  
deponunt cum ante .F. tonus non  
sit; <sup>10</sup> sicque fit ut finis  
Communione eiusdem ibidem  
veniat ubi nulla vox est.*

<sup>9</sup> This should be clear from an example: in the Communion *Diffusa est gratia*, many people lower the passage over *propterea*, which should have begun on F, by one tone, although there is no tone before F, <sup>10</sup> and so it happens that the end of that Communion comes in a place where there is no note.

Those who sing the beginning of the second phrase, over *propterea*, a tone lower (may be influenced by the recitation on F which underlies the initial melodic phrase, since *propterea* privileges G instead) and keep the transposition up to the end, will start and finish on what we would call E flat, which could not then be conceptualized.

(a) *Vel quasdam facimus  
subductiones trito, quae dieses  
appellantur, cum non oporteat  
eas in usum admittere nisi  
supervenientibus certis locis.*

(a) Or when we make certain  
subtractions from the [value of the]  
*tritus*, which are called *dieses*, though  
they should not be admitted into use  
except in specially occurring places.

(b) *Quod ut facile pateat  
proponimus exemplum:*

(b) Here is an example to make this  
perfectly clear:

[*Desiderium*]

[*Desiderium*]

The example *Desiderium* is discussed at length and newly edited in section 5.3.4. below.

The *tritus* in the above passage refers to the modal finals F and C. This conclusion is based on the analysis of paragraphs (a), (g), (h) and (13), which make use of the terms *protus*, *deuterus*, *tritus* and *tetrardus*. In paragraph (c), the author also uses the ordinals *tertio* and *sexto* (see below). In spite of this double terminology, the terms *protus*, *tritus* and *tetrardus* have been made equivalent by Schlecht, Gevaert and Froger, to degrees of the ascending diatonic scale starting on A (Schlecht opens an exception for the *protus*). These degrees have been identified by Schlecht as C or F (*tritus*) and D or G (*tetrardus*)<sup>158</sup>. Gevaert and Froger identify the *protus* with A, the *tritus* with C and the *tetrardus* with D.

Vincent apparently identifies the *protus*, *tritus* and *tetrardus* with the degrees a, F, G, but his reasoning is different: he chooses these degrees because they correspond to modal finals and because, unlike D (for *protus*) and C (for *tritus*), they fit both the text (*protus* higher than *tetrardus*) and the melodic context in which he thinks the *dieses* apply. Among other solutions that have been proposed since<sup>159</sup>, the most significant is that of David Hughes. For him, the Greek ordinals denote the different tones of the lower tetrachord in a conjunct tetrachordal system A-D-G: "Thus C (the third tone of the A-D tetrachord, coming before the fourth tone of that tetrachord or before the first tone of the D-G tetrachord) is to be lowered"<sup>160</sup>.

As I see it, the concept behind the terms *protus*, *tritus* and *tetrardus*, although still in a fluid state, is that of modal *maneria* (systematized and named but definitely not invented by the Cistercians). In the text it is used as an analytical tool in both the sense of modal final and of characteristic scale around the final. This ambivalence comes from the feeling that the final is impregnated with a modal quality given by the surrounding intervals heard before (*Micrologus*, Chapter XI), which is actually a sound phenomenological argument. The modal meaning of these terms in the interpolation, rightly suspected by Fraselle and Germain, is confirmed by the *marginalia* in source A: "trito, id est quinto" ("*tritus*, i. e. fifth [mode]"). It should be remarked that for Guido (*Micrologus*, Chapters VII, IX, XIII) each of the four "modes or tropes", except the *tetrardus*, admits of two finals a fifth apart, and therefore it is only in context that we can know which final carries the modal quality. On the other hand, Guido, who was brought up in the theoretical



tradition of *Musica enchiriadis*, is still paying his debt to it in the vocabulary used. In *Musica enchiriadis*, the scale is built up of identical, disjunct tetrachords gravitating around the tetrachord of the finals D, E, F and G; the tetrachordal degrees are named *protos* (or *archoos*), *deuteros*, *tritios* and *tetrardos*. Guido, in both Chapter XVIII, 23 ff., and Chapter XIX, has recourse to the names of the modes in the sense of equivalent degrees —not in relation to the complete tetrachordal system of *Musica enchiriadis*, but to its central octave alone (the explicit equivalencies given by Guido are *protus* = D or A, *deuterus* = E or B, *tritius* = F or C, and *tetrardus* = G).

A second problem in the above § (a) is the translation of *subductiones*. The concept of *subductio* reappears in paragraph (h). According to the above §§ (5)-(8), to make a "subtraction" from a note means to lower its pitch. The term has been taken to refer a "lowering" of the pitch (Vincent, Fétis<sup>161</sup>, Raillard<sup>162</sup>, Baralli, Froger, Hughes) or to an "elevation" from below (Lambillotte<sup>163</sup>, Fraselle and Germain<sup>164</sup>, Schlecht, Hermesdorff, Nisard). The overall context —the need to account both for the notes affected in the example following and for the enharmonic division of the monochord proposed in paragraphs (i) to (m) — favors the former interpretation.

A related problem is the concept of *diesis*, mentioned or implied in a number of places in the interpolation; in paragraph (h), the interpolator clarifies its meaning, when he says that "this subtraction is called *diesis*, and is about midway to the following semitone, just as the semitone is about midway to the following tone". Most scholars agree that *diesis* means here about a quarter-tone and just that (Vincent, Fraselle and Germain, Pothier<sup>165</sup>, Raillard,

Nisard, Baralli, Froger). Schlecht insists that the author uses the word also in the sense of a minor semitone —a stand which is difficult to reconcile with the evidence. Hermesdorff has the author speak of the *diesis* as half a semitone, but interprets the text as referring to roughly a third of a tone (27:28 proportion) or its residual difference to the whole tone.

The example "Desiderium" is discussed and newly edited in section 5. 3. 4 below.

<p>(c) <i>In nullo enim sono valet fieri excepto tertio et sexto, nam si reperiatur in alio penitus emendanda est; non solum autem ipsa, sed et radix ex qua inutiliter processit, eradicanda est.</i></p>	<p>(c) For this can not really occur on any degree except the third and the sixth, for if it should be found on any other degree, it should be entirely corrected, and not just (the diesis) itself, but the root itself out of which it erroneously sprang, must be torn out.</p>
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The third and sixth degrees of the scale (from A upwards) are the C and the F. The "root" referred to is presumably bad intonation. The *tertio et sexto* degrees of the scale have been generally identified with C and F (starting the scale with A: cf. Fraselle and Germain, Schlecht, Hermesdorff, Gevaert, Raillard, Baralli and Froger) but Nisard interpreted them as E and B (he counts the Gamma as the first degree). The latter alternative was rightly criticized by Baralli in

the light of Guido's writings, which mirror the Italian usage of the time (A is referred to as "prima vox")<sup>166</sup>.

<p>(d) <i>Notandum quod quia a quibusdam semitonii loco admittitur, ideo harmoniam in modum plaustrum vergentis per petrosam semitam conficiunt. Ideo autem plus quam omnium artium musicae sunt regulae dissolutae, quia dum nusquam aliqui potuerunt se ad semitam admittere, in modum pleni fluminis cui dum non sufficit proprius alveus per compita diffunditur.</i></p>	<p>(d) It should be noted that because it (the diesis) is admitted by some in the place of a semitone, they produce harmony rather like that of a box-cart wrenching along a rocky road, and it is for just this reason that the rules of music are treated more slackly than those of all the (other) arts, because some people were never able to confine themselves to the side-path, like a swelling stream which, because its own bed is not enough for it, spills over on to the cross-roads.</p>
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In this paragraph, the author criticizes those singers who are unable to intone semitones consistently; they go out of their way, falling into the paths that they come across: the diesis is one of these paths. The comparison with the swelling stream could only be interpreted as a metaphor for enlarged intervals if the stream was said to invade the margins, as in a flood; it is said instead to invade other beds, which is a metaphor for indiscipline and inconsistency.

<p>(e) <i>Itaque ipsi omni loco quo semitonia accreverunt, elegerunt aliam semitam scilicet metuentes artum ingredi specum, ne magnitudo qua praecellunt corporis artetur, aut minori latitudine aut breviori altitudine tegminis.</i></p>	<p>(e) And so in every place where semitones have arisen, these people have chosen another path, no doubt because they were afraid to go into a tight cave, lest the pretended magnitude of their body should be cramped, due either to the lesser width or to the lower height of the roof.</p>
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These singers systematically avoid the semitones because it is too narrow an interval for them; we can presume that they do so by ignoring it or by substituting a whole tone or a minor third for it. This may relate to the contemporary tendency to raise the mi to fa in certain contexts.

The expression *omni loco quo semitonia accreverunt* has been taken as referring to every place where semitones are enlarged (Froger) or to those places where semitones occur (Schlecht, Hermesdorff). The latter interpretation is clearly implied by the alternative reading *quo semitonia accurrunt* or *ocurrunt*, given by four manuscripts. Dom Froger's interpretation is central to his claim that the interpolator authorizes the use of *dieses* only to enlarge intervals of a semitone or more, not to sing intervals of a quarter-tone. In this paragraph, however, the author criticizes singers who avoid semitones not by enlarging them a little, but by choosing alternative, theoretically legitimate paths (unisons or bigger intervals); the use of the *diesis* is only described in the following

paragraph, which is clear about it being sung (in the wrong places) as an interval smaller than the semitone. Hermesdorff remarks in addition that the interpretation implying enlarged semitones supposes that the semitones had been enlarged beforehand and not as a result of the singers' tendency to use *dieses*<sup>167</sup>.

<p>(f) <i>Ubi autem non quaerunt penitus effugere, diesi usi sunt, imitantes nimirum illos qui, dum metuunt vim aloris, vim faciunt impingentes semet ante os camini.</i></p>	<p>(f) But where they do not seek to flee utterly, they have used dieses, no doubt imitating those who, when they are afraid of the onslaught of the cold, resist energetically, trying to wedge themselves into the mouth of the stove.</p>
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When these singers try to counter their pitiful allergy to semitones, they exaggerate and take the opposite direction, singing dieses instead. This critique probably refers to the tradition of microtonal inflections recorded by the Dijon Tonary, the Cluny Gradual, the Stavelot Missal and the Utrecht/Trier MSS; the author obviously regards this tradition as an illegitimate departure from the diatonic path. Since the singers who are criticized here are the same as the ones criticized for substituting larger intervals for semitones, one may suppose that these singers are both representative of the "East-Frankish dialect" and of the larger tradition of enharmonic inflection.

(g) *Igitur haec diesis, quae sicut supra diximus locum semitonii sumit, nusquam sumenda est nisi isto modo, cum tritus canitur et tetrardus producendus est in proto iterumque deponendus est in semetipso, vel in eodem trito vel etiam magis infimo.*

(g) Therefore, this diesis, which as we said above, takes the place of a semitone, must never be employed except in this way: when the *tritus* is sung, and the *tetrardus* leads to the next (higher) *protus*, and then put back down on itself again, or on the same *tritus*, or even lower.

(h) *Tunc tritus qui praeest tetrardo protove, subducendus est modicum; quae subductio appellatur diesis et medietas sequentis semitonii, sicut semitonium est medietas sequentis toni.*

(h) Then the *tritus* which is before the *tetrardus* or the *protus*, must be subtracted slightly, and this subtraction is called diesis, and is about midway to the following semitone, just as the semitone is about midway to the following tone.

According to Martianus Capella — *De nuptiis* [940] —, *productio* is the movement of the voice from a low to a higher pitch. The following *deponendus* agrees with this meaning, which is confirmed by the musical context.

In order to understand these paragraphs, we must look at the example "Desiderium" after c-aa-G (i. e. when, for the first time, notwithstanding a typical *protus authenticus* intonation, a complete tetrachordal structure is sung); or, if we choose to follow Vincent's interpretation, after h-a-G.

1) After c-aa-G: The author tells us that, when the characteristic sound of *tritus* is sung (F in the tetrachordal context a-G-E-F) and when afterwards the sound property of the *tetrardus* (G in the context G-E-G-h) leads to the higher *protus* (a in the context c-[heard before]-h-a) and then comes back to itself (G) as had happened before, or to the same *tritus* (a-F) or lower (D-E),

2) After h-a-G (hypothesis implied by Vincent): The author tells us that, when the characteristic sound of *tritus* is sung (F in the pentachordal context a-F-D-E) and when afterwards the final of the *tetrardus* (G) leads to the higher *protus* (a) and then comes back to itself (G) as had happened before, or to the same *tritus* (F) or lower (E),

Then we arrive at (or, according to Vincent's hypothesis, have just identified) the context where, in the example, the diesis is allowed: the *tritus* final F (in the context a-F-E) which precedes the *tetrardus* final G, and the *tritus* final F (in the context a-F) which precedes the characteristic *protus* sound E-F-D.

Since, as we have seen, the subtraction implies a decrease in pitch, these F notes are slightly flattened by the value of a diesis, which is said to be about half of the following semitone E-F, as the semitone is, loosely speaking, half of the following tone E-D (Guido had beforehand — Ch. IV, 5 — defined semitone as "not a full tone", in accordance with Boethius's saying — *De institutione musica* [203] — that "something that does not come to a whole is usually called semi"). This subtraction results in two trichords a - F - E which are compatible with Greek musical theory, and can be easily located in the monochord. The author then tells us how to do find them there.

(i) *Metitur autem hoc modo: Cum a .G. ad finem feceris novem passus, reperisque .a., tunc ab .a. ad finem partire per septem et in termino primae partis reperies primam diesim inter .h. et .c.*

(i) And so, it is reckoned like this: when you have divided [the monochord] from .G. to the end into nine [equal] sections and you find .a. [at the end of the first section], then from .a. to the end you divide by seven and you shall find at the end of the first part the first diesis between .h. and .c.

Vincent, Schlecht, Hermesdorff and Gevaert agree that the diesis thus arrived at forms with the lower .h. an interval corresponding to the 28:27 proportion, given by Archytas as the lower interval of any tetrachord and equivalent to the lower interval of Ptolemy's tonic diatonic tetrachord. In fact,  $8/9 \times 8/9 = 64/81$ ;  $6/7 \times 8/9 = 16/21$ ;  $64/81 : 16/21 = 28/27$ . This interval can be translated as 63 cents or about 3/10 of a tone, leaving a very narrow space between the diesis and the upper .c.: roughly a third of a minor semitone. These dieses may therefore be described as quarter-tones only by gross approximation.

(k) *Moxque secundus et tertius passus erunt vacui, quartus vero tertii diesis obtinebit locum, qui similiter erit inter .hh. et .cc.*

(k) And next the second and third sections will be empty, but the fourth gets the place of the third diesis, which will likewise be between .hh. and .cc.



The place of the third diesis is indicated by the end-mark of the fourth section.

(l) *Modo simili a .d. passus fiant totidem ad finem, moxque secundae patebit locus, supradicto ordine, quae erit inter .e. et f.*

(l) Similarly, there should be the same number of sections (seven) from .d. to the end [of the monochord], and then the place of the second [diesis] will be visible in the above-mentioned order (at the end of the first section), which will be between .e. and .f.

(m) *Tunc revertens ad primam diesin divide ad finem per quattuor, et primus item passus terminabit inter .e. et f. secundus inter .hh. et .cc., reliqui vacant.*

(m) Then, returning to the first diesis, divide [the space] until the end by four and the first section will end between .e. and .f. (the place of the second diesis), the second, between .hh. and .cc. (the place of the third diesis), and the rest are empty.

This procedure serves only to verify the correctness of the preceding steps, confirming the location of the second and third dieses.

(n) *Admonemus vero lectorem ne existimet nos desipere, eoquod primo omisimus ista scribere. Nos etiam paratos habebit post finem operis ex istis respondere sibi; nunc ad cepta revertamur. Sunt etiam nonnulli, qui ubi debuerant semiditonum admittere, opponunt tonum.*

(n) However, we advise the reader not to think that we are rambling just because at first we did not address this topic. For he will find us ready to answer him on those matters after the end of the book. Now back to where we were. For there are many who, when they ought to use a minor third, substitute a whole tone instead.

Schlecht and Hermesdorff assume that *semiditonum* stands for *semitonium*. Two MSS also have this variant. The following paragraph can not, however, be understood in the light of *semitonium*. The German translators had in mind the example with the Communion *Diffusa*.

(o) *Quod ut exemplo pateat, in Offertorio "De profundis" multi quod erat incipiendum in .D. uno tono deponunt, cum ante .C. tonus non sit, sicque fit ut ubicumque occurrit semitonium, ponant illum sub .G., quod nullo modo potest fieri.*

(o) This should be clear from an example: in the Offertory *De profundis* many lower by one tone what should have begun in .D., although there is no tone before .C., and so it happens that whenever a semitone occurs, they have to put it under .G., which simply cannot happen.

The text is to be understood in the light of the above statement about the replacement of a minor third by a tone. Thus, if the Offertory *De profundis* is written having as its first note a D (implying an upper B flat) and it is started on C and the following interval of a minor third is replaced by a tone, the upper semitones will fall between what we would now call F sharp (which for the author is theoretically inexistent) and G. An alternative is to consider the text to be corrupt. An easy emendation would be to read E. where we have G.; the above paragraph would have, however, to be ignored.

*<sup>11</sup> Cantoris itaque peritiae esse  
debet quo loco vel modo quamlibet  
neumam incipiat, <sup>12</sup> ut ei vel si  
motione opus est, affines voces  
inquirat. <sup>13</sup> Hos autem modos vel  
tropos graece nominamus protum,  
deuterum, tritum, tetrardum.*

<sup>11</sup> And so it ought to be left to the  
singer's expertise [to determine] in  
what place or mode he should begin  
a given *neuma*, <sup>12</sup> so that if there is  
need of a transposition, he can find  
the corresponding notes. <sup>13</sup> And  
these modes or tropes we call in  
Greek *protus, deuterus, tritus,*  
*tetrardus.*

#### 5. 3. 4 The example "Desiderium"

In the following paragraphs, a few corrections and additions will be made to the data relative to the example "Desiderium"

presented in J. Smits van Waesberghe's critical edition of Guido's *Micrologus*, Chapter X. Waesberghe presents the following table (the column on the right represents his sources, and the asterisk, the presence of the word "*diesis*" over the example):

C D Daa	caaG aGE FGEG haGaFDE GaF E GaFEFDFED	A
C D Daa	caaG a E FGEF baGaFDE	F <sub>1</sub>
C D Da	caaG a F FGE baGaFDE	F <sub>2</sub>
C D Dabaa	acaaG a E FG baGaFDE	F <sub>5</sub>
C D Daa	caaG a E FGEG baGaFDE GaF E GaF*EFDFFED	K
C D Daa	caaG GaE*FGEG haGaFDE GaF E GaF	Mi <sub>2</sub>
C D Daa	caaG aGE FG haGaFDE GaF*E GaF*EFDFFED	V <sub>1</sub>
aa	caaG aGE FGEG haGaFDE GaF E GaF EFDFFED	G
Deside - - - - - ri - um		

*\*suprascr diesis*

In the critical apparatus, Waesberghe fails to mention F<sub>5</sub>, but refers to two other sources, M<sub>3</sub> and M<sub>4</sub>, thus increasing the number of manuscripts which include the example from eight (in the above table) or nine (in the apparatus) to the total of ten.

Since this example is central to the main argument of the interpolation, I thought it wise to look at its most significant sources. The manuscripts consulted in order to get a clearer picture of the situation were:

**A** (ex-Admont Abbey 494) Rochester U.S.A., Sibley Music Library of the Eastman School of Music, Vault, M.L. 92, 1200 (acc. nr. 336, 529), XIIth-century.

**K** Karlsruhe, Badische Landesbibliothek, MS. 504, St. Michelsberg near Bamberg, c. 1100.

**M4** München, Bayerische Staatsbibliothek, cod. lat. 13021, XII-XIIIth century (*not included in Waesberghe's table*).

**Mi2** Milano, Bibl. Ambrosiana, D 5 inf., XIVth-century.

**V1** Vienna Nat. Bibl. (Cpv.) 51, early XIIth-century.

Four of these sources (A, K, M4 and V1) were selected on account of both their inclusion of the example "Desiderium" in neumes and their early date (M3 in Waesberghe's list, München cod. lat. 5539, from the XIV-XVth centuries, was therefore excluded). According to Waesberghe's critical apparatus, the F(lorentine) sources and G (a source whose identity is not made clear<sup>168</sup>) have only letter notation; moreover, the example in the Florentine sources, if we can trust Waesberghe's table<sup>169</sup>, is remarkably incomplete. Mi2 was added to the above list because it writes down, in the example, the word "*diesis*".

The comparison between Waesberghe's table and the photos taken from the above five manuscripts reveals five classes of mistakes or omissions in the critical edition:

1. The syllables (*Deside-ri-um*) below the letters are misplaced.

2. A h is given instead of a b flat in K's reading of the example.

3. The Milan manuscript does not drop out the last three notes (FED) of the final melisma.

4. The Milan manuscript has the "*diesis*" placed not on the syllable *ri*, but near the end of *um*, above GaF.

5. More importantly, K has a second, unreported "*diesis*" over the neumes, and A also includes the word "*diesis*" twice above the example.

Since the relation of the "*diesis*" with the music is a matter of dispute, in the following the exact placement of the word above the letters or the neumes in each manuscript is indicated by means of a /---/ (the slashes coincide with the beginning and end of the word). The example is presented in

A    above, in letter notation going up or down in accordance with the position of the notes (from the first *a*, different letters are joined by oblique lines, except between the first *D* and the following *E*); below, in neumatic notation of Italian type. Eight horizontal lines were drawn (four above, with F clef, and four below, with c and F clefs and slightly narrower spacing), but, with the exception of the F line above, they were either disregarded by the copyist or added by a later hand. This is specially noticeable in the neumatic notation, which was entered according to slightly oblique imaginary lines which do not coincide with the visible lines. In spite of some ambiguity in contour, the neumes record a clear melodic variant, not counting with the erroneous upper transposition (by a third) at the end. The first letter seems, on the very damaged microfilm from which the paper copy used was made, to be an F, but it occupies the

position of a C. The word "*diesis*" is written twice above the letter notation, over the two last *a* notes. The neumes once imply a different note from that seen in the letter notation.

[C] D D a a c a a G a G E F G E G h a G a F D

G

(neumes)

/---/      /----/

E G a F E G a F E F D F E D

K above, in letter notation going up or down according to the position of the note (generally speaking, different letters are joined by lines when they are part of the same neume); below, in neumatic notation of Italian type. Six horizontal lines were drawn; the letter notation disregards them, but the neumes are correctly distributed on their four-line stave, with no clefs. The word "*diesis*" is written once above the letter notation, and once above the neumes; its position does not coincide, but each time the *a* - *F* - *E* cluster is singled out:

(neumes) (letters)

/-----/    /-----/

C D D-a a c-aa-G a-E F-G E-G—h-a-G—a-F-D-E G-a F-E G-a-F E-F-D F-E-D

**M4** above, in multi-leveled letter notation (all the letters are joined by a continuous line which roughly indicates relative height); below, in neumatic notation of the Germanic type around a single dark line (c, a and D clefs on the left suggest four lines in the original, but the neumes flow on the page independently of any imaginary lines). The letter notation gives a melody which is slightly different from that implied by the neumes (neumatic variants are recorded below: a possible alternative note, a quilisma on F, another F missing, two notes added):

C D D a a c a a G a G E F G E G h a G a F D E G a F E F G a F E < > F E D
<div style="display: flex; justify-content: space-between; padding: 0 10px;"> <span>E?</span> <span>quil.</span> <span>&lt; &gt;</span> <span>F E</span> </div>

R. Schlecht printed a slightly incorrect transcription of this version, where he conflates the melody given by the letters with that implied by the neumes<sup>170</sup>. Hermesdorff reproduces it<sup>171</sup>.

**Mi2** in multi-leveled letter notation only (letters tend to be higher or lower in the page depending on their corresponding relative pitch, but this principle is often disregarded; a crooked yellow line unites them all; the spacing between letters increases at certain points). The *diesis* starts over *G*, but is centered over *a*.

/-----/

C D D a a c a a G G a E F G E G h a G a F D E G a F E G a F F E D



V1 above, in multi-leveled letter notation (letters are correctly distributed on the page around a single F line; they are all united by small strokes between them); below, in neumatic notation of Germanic type around a single visible F line (a C clef on the left suggests the presence of at least one more line). The neumatic contour coincides with the letter contour except on a single point (a lacuna in the letter notation). The word "diesis" is written out twice above the neumes approximately over the *a - F - E* cluster:

/----/ /-----/  
 C D D a a c a a G a G E F G < > h a G a F D E G a F E G a F E F D F E D  
 E G .

All considered, it seems likely that the example included both multi-leveled letter notation, joined by a continuous line or selective strokes, around a single F line; and neumatic notation (below the letters) on a four-line stave with letter-clefs. The word "*diesis*" probably occurred twice. Its placement can be gauged from comparison between the sources which write it down:

A	/---/	/---/
K	/-----/	/-----/
Mi <sub>2</sub>		/---/
V <sub>1</sub>	/-----/	/-----/

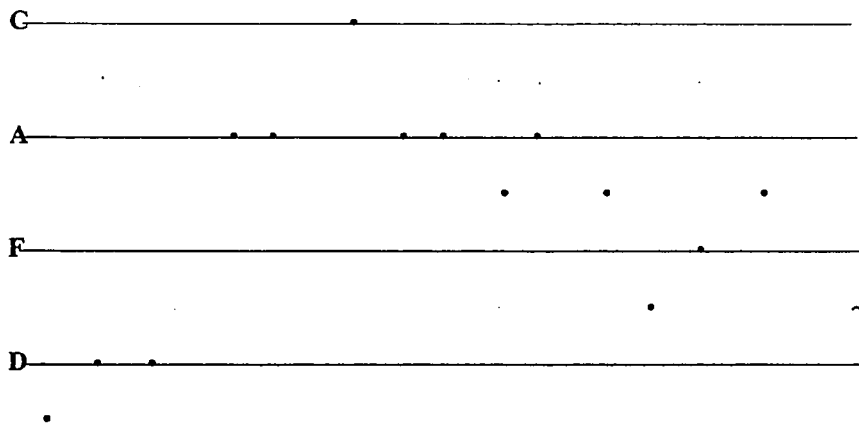
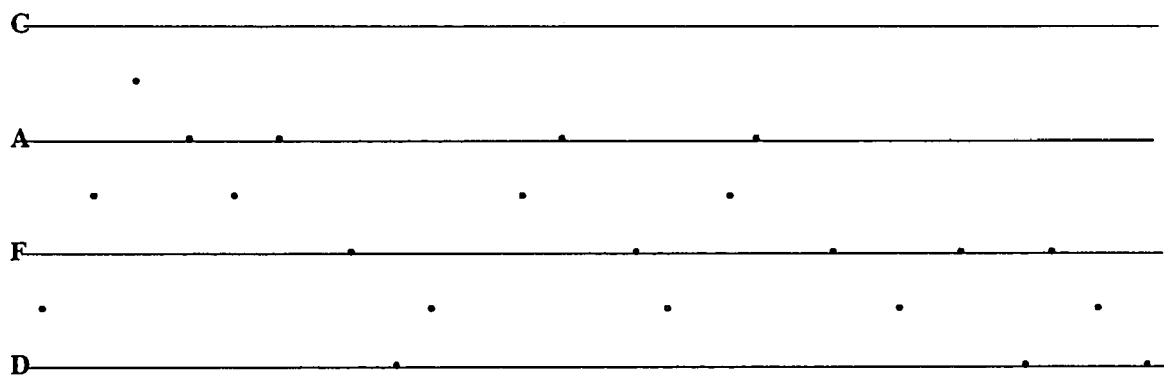
C D D a a c a a G a G E F G E G h a G a F D E G a F E G a F E F D F E D

which implies, in the original, something like

*diesis*      *diesis*

C D D<sup>-</sup>a a c<sup>-</sup>a<sup>-</sup>a<sup>-</sup>G a-G-E F<sup>-</sup>G E<sup>-</sup>G h-a-G a-F-D-E G<sup>-</sup>a F-E G<sup>-</sup>a-F E<sup>-</sup>F<sup>-</sup>D F-E-D

here presented on one line, with strokes uniting the notes belonging to the same neume (the upper strokes indicate ligatures); or, on the stave,

*diesis**diesis*

which is a different picture from that presented by Waesberghe's table. It should also be stressed that the example with the word

"*diesis*" as shown makes it impossible to accept Dom Froger's claim that the "*diesis*" should be looked for at the beginning of the piece, and jeopardizes his interpretation of the corresponding textual passage.

In fact, this example is crucial to understand the interpolation. Vincent rightly identifies in the example the passage where the *diesis* applies. He presents a coherent partial translation (with *protus*, *tritius* and *tetrardus* identified with the respective modal finals a, F and G) but is betrayed by his wish to make the Dijon Tonary illustrate the interpolation. His translation implies a lowering of the F in the given example, but he chooses instead to raise the following E, which allows him to identify an identical passage in the Dijon Tonary. The conclusion is thus at variance with the preceding analysis.

Dom Froger assimilates *tritius* to "tertio" (in spite of the fact that the Latin and the Greek terms are never mingled, of the explicit use of *tritius* as a modal concept at the end of the chapter, and of Guido's use of modal terms to denote equivalent degrees in the chapters on *organum*) and therefore condemns himself to a gross misunderstanding. His locating the *dieses* at the beginning of the example, going against all the manuscripts which indicate their location, is the clearest symptom of his failure.

The fact that the example singles out the upper *a*-notes at the end is unexpected, for most scholars have assumed that the "*diesis*" concerned the C and F notes. This can nevertheless be reconciled with the textual evidence. The modification described in the interpolation concerns not just a specific degree, but also the intervals which characteristically surround it and help establish its modal identity. The *tritius* identity is given by the two intervals above its final (which

distinguish it from the *protus* and the *deuterus*) and the interval below its final (which distinguishes it from the *tetrardus*); in the above example, the characteristic "sound" of *tritus* is therefore given by the descending tetrachord *a-G-F-E*. Thus the upper *a*-note is singled out in the example because it marks the beginning of the descending tetrachord around *F*, and because the *diesis* affects the interval between *a* and the following note, *F*.

### 5. 3. 5 Final considerations

The interpolation just analyzed gives us a double clue about the practical use of the *diesis*.

On the one hand, there are singers who use microtones where, according to the author, they should sing semitones instead. Although this practice is presented as illegitimate, it is worth keeping in mind that eleventh-century, theoretically-oriented cantors tended to condemn those phenomena which fell outside received theory. The *E*, basis of the tetrachord, is supposed to be fixed. If an *E* is sharpened by nearly a quarter-tone —as is often implied by the manuscripts compared in the next chapter —and the *A* maintains its relative position, the perfect fourth which, according to ancient Greek theory, should exist between *A* and *E* is falsified. Theoretically speaking, the enharmonic interval between *F* and *E*<sup>+</sup> is illegitimate. Since sharpened mi notes are not the kind of phenomenon that could be

accounted for by Greek-derived theory, the interpolator may be criticizing here its use by clerical singers.

On the other hand, the author explains how the *dieses* should be used. The only theoretically acceptable enharmonic interval would be between F<sup>-</sup> and E, and this is precisely the kind of interval allowed by the *Micrologus* interpolator, if sung after an A. Taking his explanation together with his instructions to locate the *dieses* in the monochord, it becomes clear that he regards as legitimate, in certain circumstances, the use of the Greek common division of the diatonic tetrachord, with the "F" about three-tenths of a tone higher than E.

#### 5.4 CONCLUSION

We have seen that the microtonal interpretation of the special signs in the Dijon Tonary is the only one to satisfy the conditions required of a sound scientific explanation: it is simple and coherent, and accounts for all kinds of hard and analytical, internal and external evidence. It fits the notational context; is supported by neumatic evidence; and is compatible both with the concentration of the symbols in the most ancient layers of the repertoire (older liturgical propers, older kinds of chant) and with the fact that their distribution is, on the one hand, independent of the oktoechos, i.e., not restricted to a modal category, and on the other, concentrated in pieces (traditionally assigned to the Deuterus and Tetrardus plagal categories) which exhibit closely related modal characteristics of archaic stock<sup>172</sup>.

If doubts remain about the microtonal hypothesis, the comparative evidence presented in the next chapter should be able to dispel them. Three medieval manuscripts devoted to the Mass — not theoretically-oriented ones like the Dijon Tonary, but of a practical nature instead — have so far been shown, on the basis of a reasonably large sample, to display special neumes which correspond to the Tonary's special signs: the Missals from Stavelot (STA 1) and Utrecht (ULT), and the Cluny Gradual (CLU 1)<sup>173</sup>. Another Gradual, Trier Stadtbibliothek MS 2254/2197 (TRE 2), can now be added<sup>174</sup>. These sources are not concerned with modal classification, but with singing. They correspond to different liturgical traditions, including both French and Germanic branches, and belong to two different notational families. Taken together, they witness that the phenomenon recorded by the special signs was of a practical nature and widespread; the fact that they largely coincide in the locations where the controversial intervals were sung means that they mirror one and the same tradition, which therefore must have been well established before the mid-ninth century partition of the Carolingian Empire between Western and Eastern territories.

Among these codices, the Stavelot Missal is specially important from a comparative point of view (Ex. 12). The neumes are carefully presented on a stave; the special neumes are clear variants of the *clivis* and the *torculus*. When drawing the normal *clivis* and *torculus*, the notator always prolongs the descending stroke which leads to the last note of the neume until he reaches the line or space which corresponds to it: he is as precise as one could be. In the special, non-repercussive neumes, the descending stroke is cut short just below

the fa, and just above the mi, as in the quasi-diastematic passages of the Dijon Tonary pointed out by Gmelch. There could be no clearer notational illustration of melodic microtonal inflections. It is therefore evident that the special signs in the Dijon Tonary indicate a note which is higher than mi.

If one doubts that medieval music scribes could be so particular about tonal nuances as to identify enharmonic intervals, one has only to look at the Utrecht Missal: it has two alternative letter-clef signs, **b** and **b-**, for the fa note B flat (possibly corresponding to two different measures found on the monochord<sup>175</sup>), both compatible with the use of special neumes encompassing the B flat and a note just below it<sup>176</sup>. A copyist who took care to record two different intonations of the B flat would not hesitate to pin down enharmonic intervals.

Microtonal intervals in chant were probably one aspect of style (meant as a traditional way of singing including vocal production and ornamentation within an accepted range of variation) rather than melodic structure (basic tonal references employed by the singer), and its use may have primitively depended largely on individual choice. Agreement in the location of microtonal inflections in the manuscripts indicates nonetheless that microtones were seen as an aspect of a fixed melodic contour, implying that the "enharmonic" vocal style became, under the Carolingians, an intrinsic feature of chant. The data presented in the next chapter argues furthermore in favor of the long-suspected microtonal character of a few "ornamental" neumes: the *oriscus*, the *gutturalis*, the *salicus*, the *quilisma* and, indirectly, also the *trigon*.



The fact that medieval treatises are generally silent about the use of enharmonic microtones in chant should not surprise us. Theory then was not mainly concerned with the description of an object, but rather with the elucidation of an universal order. In the Middle Ages, the "sharpened mi" phenomenon could be integrated in the Greek-inherited theoretical edifice only by analogy, i. e. relating it loosely to the enharmonic genus (this is probably how we should interpret the Pseudo-Remigius). The phenomenon could not however be used as an illustration of the enharmonic genus or any other kind of musical order acknowledged by the classical authors. This was, however, only a problem for theorists. Chant could go on as usual as long as the notational technology did not require a strong theoretical basis. Notators were free to record special inflections by relating them to the enharmonic division of the monochord (as in DIJ 1) disregarding the tension between ancient Greek theory and contemporary practice, or by slightly modifying the shape of the neumes (as in CLU 1).

After Guido d'Arezzo, however, scribes were forced to concentrate on melodic substance and choose what kind of tonal information they thought was worth writing down. Since chant had been ranged by theorists under the diatonic label, there was no place for microtones in the standard scale, and therefore they were left out of chant books almost everywhere. Because during the twelfth and thirteenth centuries the learning of music became more and more dependent on reading skills, the phenomenon, which remained in the oral tradition, slowly tended to disappear. In some regions, however,

it persisted for a long time (as the relatively late date of TRE 2 and Hieronymus de Moravia's testimony indicate).

It is perhaps significant that the practice of enharmonic inflection seems to have lasted longer at the heart of the Carolingian Empire, the area corresponding to today's north-eastern France, Belgium, southern Netherlands, Luxembourg and north-western Germany. What is more surprising, though, is that around the line which goes from Utrecht to Stavelot to Trier, having at its center Aachen, the capital of Charlemagne's Empire, it even managed to survive the impact of the Guidonian staff.

Microtones could not in fact be outlawed, for the intervals used correspond to the enharmonic division of the monochord described in medieval treatises. We probably owe to the authority of the monochord the survival of microtonal inflections in the sources written after the adoption of the staff. The monochord was, among singers, both the main auxiliary instrument and the warrant of theoretical propriety<sup>177</sup>. If from a modern point of view the microtonal phenomenon can be claimed to be legitimate on the basis of either artistic worth or historical propriety, the medieval singer wishing to record microtonal inflections could only comfort himself with the thought that whatever could be sung anywhere at all on the monochord could not let itself slip out of church practice<sup>178</sup>.

Although the enharmonic-like phenomenon in Gregorian chant is referred to, disapprovingly, by the interpolator of Guido's *Micrologus*, a treatise which breaches traditional chant practice, this author defends the selective use of the Greek common division of the diatonic tetrachord, with a microtonal interval between F<sup>-</sup> and E.

Additional evidence presented in the next chapter also suggests that a Greek chromatic division of the tetrachord, with the G flattened by about a quarter-tone, was used in the Deuterus psalmody.

Considering the Eastern Mediterranean musical background of Western liturgical chant, an ancient, widespread "enharmonic" style, microtonal ornamental neumes and the survival of Greek intonation practice in Gregorian chant make full historical sense: if one also takes into account that singing style and musical object (or standard procedures of musical elaboration) are often inseparable in oral transmission<sup>179</sup>, one can regard the microtonal phenomena as additional evidence for the view that Gregorian chant is rooted in Mediterranean, Hellenized musical practice.

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<sup>1</sup>"De la foi, de l'art, de l'espérance, de la vie surnaturelle, de cet idéal de société calquée sur celle du ciel, est sortie la merveille du chant grégorien, créée comme nos cathédrales qu'elle remplit, par l'inspiration des saints et des peuples. Dans ces thèmes bénis, c'est leur foi, c'est leur coeur, c'est leur tendresse surnaturelle qui vibre encore. Ils sont sacrés ces chants, n'y touchez pas". Excerpted from a letter written by Dom Delatte in 1905 and printed at Solesmes on a marker commemorating Dom Joseph Gajard. The admonition "n'y touchez pas" is possibly taken from a poem by Sully-Prud'homme, *Le Vase brisé* (I owe this suggestion to Michel Huglo).

<sup>2</sup>Modern chant editions are listed in chronological order of publication in A. Turco, *Il canto gregoriano*, I, 101-6.

<sup>3</sup>J. Rayburn, *Gregorian Chant*, 25-34. Dom Pierre Combe, *Histoire de la restauration du chant grégorien d'après des documents inédits. Solesmes et l'Édition Vaticane*, Solesmes: Abbaye St. Pierre, 1969, 305-30, 349-431. The early history of the restoration of Gregorian chant in the nineteenth and early twentieth centuries is adequately summarized in D. Hiley, *Western Plainchant*, 622-27.

<sup>4</sup>Mark Lindley and Paul Griffiths, "Microtone", *The New Grove*, Vol. XII, 279-80.

<sup>5</sup>This definition was arrived at partly in response to the thought-provoking criticism of Judit Frigyesi, who was kind enough to read a preliminary version of this prologue.

<sup>6</sup>"According to the law of categorical perception, a musical interval [...] constitutes a perceptual category [...] Each category is practically a small set of potential interval sizes, which become actualized according to the circumstances [...] Within the existing interval categories certain reference interval sizes become recorded in the memory of the intervallic code users through ear training. These are referred to as intonational variants of a given interval [...] An intonational variant of a musical interval constitutes a narrow intonational zone within the interval category, related to a stable tendency to

attribute a definite size to the given interval. Within a given interval category [...] several intonational variants may be distinguished, related to particular types of melodic context, harmonic tension, etc.": Janina Fik, *Melodic Intonation, Psychoacoustics, and the Violin*, Zielona Góra: Organon, 1995, 29-31. The "semitone", as interpreted by today's string players, may appear in a variety of sizes, sometimes as small as 44 cents, i. e. less than a quarter-tone (cf. Charles Shackford, "Some Aspects of Perception, II: Interval Sizes and Tonal Dynamics in Performance", *Journal of Music Theory*, & (1962), 66-90 [71, 76]). Sizes around a quarter-tone could be regarded as accidental and possibly judged as too narrow, but the accepted limits of the interval category "semitone" in the performance of the classical repertory for non-fixed pitch instruments encompasses interval sizes as small as 63 cents (cf. J. Fyk, *Melodic Intonation*, 178-86), i. e. the value of Archytas's *diesis*, or slightly less than 1/3 tone. These sizes seem to be freely interchangeable with others approximately equivalent to the Pythagorean semitone (90 cents) and therefore the intonational zone roughly corresponding to the 1/3 tone does not constitute a real intonational variant.

<sup>7</sup>Martianus Minneus Felix Capella, *De nuptiis Philologiae et Mercurii*, ed. Adolfus Dick, Stuttgart: Teubner, 1969, 497 [I was not able to consult the more recent edition by James Willis (Leipzig: Teubner, 1983)]: "*diapason . . . octo sonos recipit, spatia septem, productiones sex, hemitonia duodecim, diesis uiginti quattuor*". English translation taken from William Harris Stahl and Richard Johnson, *Martianus Capella and the Seven Liberal Arts, Vol. II: The Marriage of Philology and Mercury*, New York: Columbia University Press, 1977, 361-62.

<sup>8</sup>Harold S. Powers, "India, §I-II", *The New Grove*, Vol. IX, 69-141 [77-78, 92-93, 98].

<sup>9</sup>Rodolphe d'Erlanger, *La musique arabe, V: Essai de codification des règles usuelles de la musique arabe moderne. Échelle générale des sons. Système modal*, Paris: Paul Geuthner, 1949, 74-75; Josef Pacholczyk, "Arab music, § I, 5", *The New Grove*, Vol. I, 521-28 [523]; Simon Jargy, *La musique arabe*, 3e éd., Paris: P.U.F., 1988, 60-62; Habib Hassan Touma, *The Music of the Arabs. New Expanded Edition*, Portland: Amadeus Press, 1996, 23.

<sup>10</sup>George Dimitri Sawa, *Music Performance Practice in the Early Abbasid Era, 132-320 AH / 750-932 AD*, Toronto: Pontifical Institute of Mediaeval Studies, 1989, 73-83.

<sup>11</sup>Owen Wright, "Arab music, §I, 1-4", *The New Grove*, Vol. I, 514-21 [519].

<sup>12</sup>R. d'Erlanger, *La musique arabe*, V, 89-91; Harold S. Powers, "Mode", *The New Grove*, Vol. XII, 376-450 [424-25]. H. H. Touma, *The Music of the Arabs*, 23, states that "the quarter-tone is not to be found in any maqam scale and exists only in theory". This is generally true, but, as d'Erlanger and Powers make clear, not absolutely true.

<sup>13</sup>Georges Duby, *Saint Bernard. L'Art Cistercien*, Paris: Arts et Métiers Graphiques, 1976, 45.

<sup>14</sup>This is a literary *boutade*, which can be best understood in the context of the whole passage. Duby's colorful description of Cluny is heavily influenced by his interpretation of early Cistercian mentality: "Les principales adjonctions qui, dans les usages de Cluny, avaient allongé la durée de l'office jusqu'à lui faire remplir le temps presque tout entier étaient d'intention funéraire. Pour aider les morts, les soustraire au pouvoir du diable. Mais à ce même pouvoir, le chœur des moines entendait aussi arracher les vivants. Par une lutte de tous les instants, acharnée. Le choral, viril, violent, brutal — tentons d'oublier les

inflexions melliflues qui sont venues de notre temps dénaturer la mélodie grégorienne — était lancé comme un chant de guerre. Les moines qui se croyaient des pauvres, se croyaient aussi des guerriers, comme leur père et leurs frères, et mieux que ceux-ci les chevaliers de Dieu".

<sup>15</sup>Alexandre-Joseph-Hydulph Vincent, "Emploi des quarts de ton dans le chant grégorien, constaté dans l'Antiphonaire de Montpellier", *Revue Archéologique*, XI (1854), 262-72; id., "Supplément à une précédente note sur l'emploi des quarts de ton dans le chant liturgique", *Revue Archéologique*, XII (1855-56), 669-76 and Plate 277.

<sup>16</sup>Abbé F. Raillard, "Emploi des quarts de ton dans le chant de l'Église", *Revue archéologique*, XV (oct. 1858 - mar. 1859), 487-91 and plate 345 [nov. 1858]; id., "Sur les quarts de ton du Graduel *Tibi Domine* de la messe du samedi après le quatrième dimanche de Carême", *Revue archéologique*, Nouvelle série, 1/ii (juil. - déc. 1860), 187-92 and planche XX; id., *Mémoire explicatif sur les chants de l'Église rétablis dans leur forme primitive*, Paris: au Bureau de l'auteur, 1882, 12.

<sup>17</sup>Hugo Riemann, *Handbuch der Musikgeschichte*, vol. 1/2, Leipzig: Breitkopf & Härtel, 1905, 74.

<sup>18</sup>Peter Wagner, *Einführung in die gregorianischen Melodien, II: Neumenkunde. Paläographie des liturgischen Gesanges*, 2nd ed., Leipzig, 1912 (repr. Hildesheim: Georg Olms, 1962), 255-57 [1st ed., 1905, 117, cit. by Jacques Froger, "Les prétendus quarts de ton dans le chant grégorien et les symboles du ms. H. 159 de Montpellier", *Études Grégoriennes*, XVII (1978), 145-79 [148-49].

<sup>19</sup>Amédée Gastoué, *Les origines du chant romain. L'Antiphonaire Grégorien*, Paris: A. Picard, 1907, 157-58, 164; id., *L'art grégorien*, Paris: Félix Alcan, 1911, 147-48.

<sup>20</sup>Joseph Gmelch, *Die Viertelstonstufen im Messtonale von Montpellier*. Dissertation (Universität Freiburg), Eichstätt: Ph. Brönnersche Buchdruckerei, 1911.

<sup>21</sup>Maurice Emmanuel, *Histoire de la langue musicale, I: Antiquité - Moyen Age*, Paris: H. Laurens, 1911, 203-4, 223-24.

<sup>22</sup>Johannes Wolf, *Handbuch der Notationskunde*, vol. I, Leipzig: Breitkopf und Härtel, 1913, 44-46; id., "Die Musiktheorie des Mittelalters", *Acta musicologica*, 3 (1931), 53-64 [54].

<sup>23</sup>Dominic Johnner, *A New School of Gregorian Chant*, New York: Frederick Pustet, 1914, 207. According to J. Froger, "Les prétendus quarts de ton", 147, 150, the same author in *Der gregorianische Choral*, Stuttgart: J. Engelhorn's Racht, 1924, 46-47, chooses to be neutral concerning this matter.

<sup>24</sup>Théodore Gerold, *La musique au Moyen Age*, Paris: Honoré Champion, 1932, 16.

<sup>25</sup>Hubert Sidler, "Zum Messtonale von Montpellier", *Kirchenmusikalisches Jahrbuch*, 31-33 (1936-38), 33-50 [37-38].

<sup>26</sup>Gustav Reese, *Music in the Middle Ages*, New York: W. W. Norton, 1940, 136, 161.

<sup>27</sup>Ewald Jammers, *Der mittelalterliche Choral. Art und Herkunft*. Mainz: B. Schott's Söhne, 1954, 59; id., *Tafeln*, 112.

<sup>28</sup>Solange Corbin, "Valeur et sens de la notation alphabétique à Jumièges et en Normandie", in *Jumièges. Congrès Scientifique du XIIIe centenaire: Rouen, 10-12 Juin 1954*, Paris: Lecerf, 1955, vol. II, 913-24 [915]. Corbin speaks here only of "intervalles inférieurs au demi-ton". In id., *Die Neumen [Paläographie der Musik, I: Die einstimmige Musik des Mittelalters]*, Köln: Arno Volk-Verlag/Hans Gerig KG, 1979, 3.103, Corbin speaks of "Mikrointervalle" denoted

by "die Vierteltonangaben der Buchstabenschrift". She denies, however, any relation between these microtonal signs and neumatic notation, and between their presence in the Dijon Tonary and the local tradition of chant.

<sup>29</sup>Michel Huglo, "Le Tonaire de Saint-Bénigne de Dijon (Montpellier H. 159)", in *Annales Musicologiques*, IV (1956), 11; id., *Les Tonaires*, 330; id., review of F. E. Hansen's *The Grammar of Gregorian Tonality* in the *Journal of the American Musicological Society*, 37 (1984), 416-24 [418-19].

<sup>30</sup>Willi Apel, *Gregorian Chant*, Bloomington: Indiana University Press, 1958, 122.

<sup>31</sup>Ezra Sims, "Microtone", *Harvard Dictionary of Music*, ed. Willi Apel, 2nd ed., Cambridge, Mass.: Harvard University Press, 1969, 527.

<sup>32</sup>John Harris Planer, "The Ecclesiastical Modes in the Late Eighth Century" (Ph. D. diss., University of Michigan, 1970), iv, 176-78.

<sup>33</sup>Finn Egeland Hansen, *H 159 Montpellier. Tonary of St. Bénigne of Dijon*, Transcribed and annotated by —, Copenhagen: Dan Fog, 1974, 43\*; id., "Editorial Problems Connected with the Transcription of H 159, Montpellier: Tonary of St. Bénigne de Dijon", *Études grégoriennes*, 16 (1977), 161-72 [164-65]; id., *The Grammar*, 27. Hansen speaks of intervals smaller than a semitone, but not necessarily quarter tones.

<sup>34</sup>John Caldwell, *Medieval Music*, Bloomington: Indiana University Press, 1978, 26, 28, 48, 54, 56-58 (the book was later revised and translated into Spanish as *La música medieval*, Madrid: Alianza, 1984; reference will be occasionally made to the Spanish version rather than the English).

<sup>35</sup>N. Stuart, "Melodic Corrections", 5.

<sup>36</sup>David Hiley, "Notation, §III, 1-2", *The New Grove*, Vol. XIII, 344-62 [349]. Hiley later became more sceptical (see below, note 34).

<sup>37</sup>L. W. Brunner, "The Performance", 328 (n. 45).

<sup>38</sup>D. Hughes, "Evidence", 395-96.

<sup>39</sup>Marcel Pérès, "Remi et la musique", *L'École carolingienne d'Auxerre. De Murethach à Remi, 830-908. Entretiens d'Auxerre 1989*, Paris: Beauchesne, 1991, 435-42 [441]. Pérès suggests that in practice the microtonal intervals could measure roughly a third of a tone.

<sup>40</sup>I. de Loos, "Een speciale halvetoonsneem", 28, 32. Loos prefers to describe the phenomenon as a compression of the semitone.

<sup>41</sup>M. P. Ferreira, "The Cluny Gradual", 213-14. The phenomenon is described as a "microtonal" or "enharmonic" inflection, without quantification of the interval involved.

<sup>42</sup>Christian Meyer, *Mensura monochordi. La division du monochorde (IXe - XVe siècles)*, Paris: Société Française de Musicologie / Éditions Klincksieck, 1996, xxxvi.

<sup>43</sup>Raffaello Baralli, "L'episema del ms. H. 159 di Montpellier", *Rassegna Gregoriana*, X (1911), coll. 11-28, 109-36.

<sup>44</sup>Albert-Jacques Bescond, *Le chant grégorien*, Paris: Buchet-Chastel, 1972, 68-70.

<sup>45</sup>J. Froger, "Les prétendus quarts de ton".

<sup>46</sup>Joseph Pothier, *Les mélodies grégoriennes d'après la tradition*, Tournai: Desclée et Cie, 1880 (repr. Hildesheim-New York: Georg Olms, 1982), 25-27.

<sup>47</sup>Joseph Yasser, "Medieval Quartal Harmony. A Plea for Restoration - Part I", *The Musical Quarterly*, 23 (1937), 170 ff [192-93 and n. 21].

<sup>48</sup>Paul Ulveling, *Essai historique et musicologique comparé sur le vocabulaire musical, son écriture mélodique et rythmique jusqu'à l'époque du plain-chant, suivi d'un commentaire introductif au Sacramentaire et Antiphonaire*

d'Echternach, Graz: Akademische Druck-u. Verlagsanstalt, 1982, 128-30.

<sup>49</sup>J. Pothier, *Les mélodies grégoriennes*, 26-27: "le fameux épisème [...] peut s'interpréter d'une façon naturelle [...] nous pensons [...] que l'épisème appartiendra à la gamme des quarts de ton usités dans le discours [...] Il peut de fait se rencontrer [...] passages où l'on peut voir les quarts de ton de la parole, sans que ce chant cesse d'appartenir au genre vraiment diatonique".

<sup>50</sup>U. Bomm, *Der Wechsel*, 16; Walther Lipphardt, "Notation: Alphabetische Notation", in *Die Musik in Geschichte und Gegenwart*, vol. 9, 1961, col. 1623; Gilbert Reaney, "Montpellier-Handschriften", in *Die Musik in Geschichte und Gegenwart*, vol. 9, 1961, coll. 533-34; Walter Wiesli, *Das Quilisma im Codex 359 der Stiftsbibliothek St. Gallen, erhellt durch das Zeugnis der Codices: Einsiedeln 121, Bamberg lit. 6, Laon 239 und Chartres 47. Eine paläographisch-semiologische Studie*, Bethlehem Immensee: Verlag Missionshaus, 1966, 43-44; B. Stäblein, *Schriftbild*, 218; Alma Colk Browne, "The a-p System of Letter Notation", *Musica disciplina*, 35 (1981), 5-54 [32-33]; H. van der Werf, *The Emergence*, 57-58, 143; Alma Colk [Browne-] Santosuosso, *Letter Notations in the Middle Ages*, Ottawa: The Institute of Mediæval Music, 1989, 69-74.

<sup>51</sup>Gregorio M<sup>a</sup> Suñol, *Introduction a la Paléographie musicale grégorienne*, Paris-Tournai-Rome: Desclée et Cie, 1935, 396: "[le] signe spécial [...] peut se traduire par une des notes précédant le demi-ton".

<sup>52</sup>Cf. Don Michael Randel (ed.), *The New Harvard Dictionary of Music*, Cambridge, Mass.: Harvard University Press, 1986, 491: "The century-old belief that the the tonary in Montpellier 159 [...] contains microtonal notation has been thoroughly refuted by Dom Froger". Also symptomatic is D. Hiley, *Western Plainchant*, 388: "Soon after the discovery of the manuscript Vincent (1854) claimed that [the special signs at the semitone step] represented quarter-tones, a claim which received comprehensive support from Gmelch (1911). Froger, however, has showed the evidence to be insubstantial [...] The signs remain mysterious". Michel Huglo's review of Froger's article in *Scriptorium*, 34 (1980), 43\*, seems to have passed unnoticed to these authors.

<sup>53</sup>C. Bouchard, "Merovingian", 376.

<sup>54</sup>The special signs are employed between b [=B] and c [=C]; between e [=E] and f [=F]; between h [=a] and i [=b flat]; between i [=b natural] and k [=c]; between m [=e] and n [=f].

<sup>55</sup>P. Wagner, *Einführung*, II, 256, sees these signs derived from the Alypius tables; R. Baralli, "L'episema", cols. 116-23, views them as identical to the daseian signs of the grammarians; M. Huglo, "Le tonaire de Saint-Bénigne", 11, describes them as being derived from grammatical aspiration signs, but in a subsequent review of F. E. Hansen's *The Grammar*, 418, considers Boethius's *De institutione musica* the probable source; A.-J. Bescond, *Le chant grégorien*, 68-69, assumes that the signs derived from dasian musical notation, which is in turn inspired by Greek notation; A. C. Santosuosso, *Letter Notations*, 70-71, proposes that the special shapes derive from diacritical or lexical signs. Considering both the fact that we are dealing here with pitch notation and the feeble relationship between the Dijon signs and dasian notation, M. Huglo's later explanation — that the signs are derived from Boethius — seems to me simple enough and the most economical, i. e. the solution requiring the fewest historical presuppositions.

<sup>56</sup>See for instance F. E. Hansen, *H 159 Montpellier*, nrs. 335, 337, 404, 428, 433, 437, 441, 458, 463, 472, 476, 477, 479, 481, 500, 672, 673, 749, 783.

<sup>57</sup>R. Baralli, "L'episema", cols. 15-20, 27-28; J. Gmelch, *Die Viertelstonstufen*, 58-62; J. Froger, "Les prétendus quarts de ton", 173, considered together with my

own observations. If the correction over the word *adiutor*, in the gradual *Tibi Domine*, is counted, there will be four cases in the last named category.

<sup>58</sup>See for instance F. E. Hansen, *H 159 Montpellier*, nrs. 477, 679, 685, 749, 783.

<sup>59</sup>R. Baralli, "L'episema", cols. 25-28.

<sup>60</sup>J. Froger, "Les prétendus quarts de ton", 153: "On peut avoir toute confiance en un spécialiste qui, sans se contenter des facsimilés photographiques de P. M. VIII, a étudié sur place le ms lui-même à plusieurs reprises avec une extrême attention, déchiffrant aux rayons ultra-violets se qui se cache sous les corrections et grattages".

<sup>61</sup>J. Froger, "Les prétendus quarts de ton", 153: "[Hansen] a soin d'avertir son lecteur (p. 40\*) qu'il édite [...] la troisième couche ou état dans lequel deux campagnes de corrections ont mis le ms. [...] Il convient, en bonne méthode, de s'en tenir à la leçon de première main, en négligeant les corrections".

<sup>62</sup>F. E. Hansen, *H 159 Montpellier*, 582.

<sup>63</sup>F. Raillard, "Sur les quarts de ton". The manuscripts from St. Gallen, taken together, indicate three successive *equaliter* between the last note of a podatus and the note following, starting with the second of four successive podatus. There is agreement that the last note reached is a G. If only diatonic steps are allowed and one goes backwards from G, the note preceding the first *equaliter* relation must be a D (or a lower pitch), which is absent from the manuscript tradition (E instead is given). On the meaning of the *e[qualiter]* letter, see Joseph Smits van Waesberghe, "Die Bedeutung des Buchstaben E: vergleichende Untersuchungen über die *littera significativa apposita neumis*", in id., *Dia-pason. De omnibus. Ausgewählte Aufsätze von Joseph Smits van Waesberghe*, Buren: Frits Knuf, 1976, 96-107.

<sup>64</sup>J. Gmelch, *Die Viertelstonstufen*, 17-21.

<sup>65</sup>J. Froger, "Les prétendus quarts de ton", 153-56 [156]: "En réalité, même dans les endroits où la notation neumatique du ms. peut être regardée comme diastématique, elle ne l'est que d'une façon tout à fait approximative, et non pas avec cette extrême rigueur que lui suppose Gmelch".

<sup>66</sup>J. Froger, "Les prétendus quarts de ton", 157-60 [160]: "Le scribe qui a tracé les neumes se sert indifféremment du punctum ou de la virga, usant largement de celle-ci et la plaçant très souvent au grave. Par suite, le second argument de Gmelch, qui reposait tout entier sur l'équation virga = note aiguë, se trouve entièrement dénué de fondement".

<sup>67</sup>A.-J. Bescond, *Le chant grégorien*, 69. The author immediately argues, however, that it would be impossible to sing quarter-tones: "Quel chanteur serait assez habile pour donner l'intervalle juste au quart de ton près?" Jean-Antoine Bérard, *L'art du chant*, Paris, 1755 [repr. Genève: Minkoff, 1984] clearly has such singers in mind when he says that the *flatté* or *balancé* ornament requires "une inflexion de Voix presque insensible [...] un quart de port de Voix" with the Larynx going up "d'un quart de degré" [119-20, 132]. Euripides required from choruses the accurate performance of music in the enharmonic genus. Contemporary American composer John Eaton generally works with quarter-tones rather than smaller intervals because, he said, "every instrumentalist and singer can hear a quarter-tone as a distinct pitch [...] With singers there's much less difficulty than with instrumentalists" (cit. in Douglas Keislar, "Six American Composers on Nonstandard Tunings", *Perspectives of New Music*, 29 (1991), 176-211 [177, 187]). Ancient Greek, Arab, Indian and some Western music suggest that the limits for intervallic discrimination are culturally defined on the basis of a sharp perceptual capability for discriminating frequencies, which under laboratory conditions



may attain 1 Hz, if the pitch is A=440 Hz (less than 5 cents). In practice, Western musicians tend to tolerate pitch deviations of 20 to 30 cents or about 1/8 tone, but certain musical contexts are more demanding than others: cf. Donald E. Hall, *Musical Acoustics: An Introduction*, Belmont, CA: Wadsworth, 1980, 107-8, 133, 439-40; Johan Sundberg, *The Science of the Singing Voice*, Dekalb (Ill.): Northern Illinois University Press, 1987, 177-79; J. Fik, *Melodic Intonation*, 30-31.

<sup>68</sup>F. Raillard, "Emploi des quarts de ton".

<sup>69</sup>R. Baralli, "L'episema", col. 21: medial cadence fa-m i fa-mi-fa-re re, as found in the Introit *Veni et ostende*, over *ostende nobis*, and seven other cases: the second note is always a special pitch, while the fourth is a normal mi (replaced by a special pitch only once).

<sup>70</sup>A.-J. Bescond, *Le chant grégorien*, 70. J. Froger, "Les prétendus quarts de ton", 175.

<sup>71</sup>J. Froger, "Les prétendus quarts de ton", 178: "L'inconstance dans l'emploi des symboles n'est guère une objection contre leur signification «rythmique»".

<sup>72</sup>Id., *ibid.*: "Si on cherche à savoir dans quelle mesure [les symboles examinés] ont un rapport avec les notes longues dans les mss. de Saint-Gall ou de Laon, on constate qu'ils correspondent environ 380 fois à un neume long, et environ 320 fois à un neume léger".

<sup>73</sup>M. H[uglo], review of Froger's article in *Scriptorium*, 34 (1980), 43\*:

"[l']hypothèse ... «rythmique» ... ressemble à une échappatoire". D. Hiley, *Western Plainchant*, 388: "An alternative explanation, that they [the special signs at the semitone step] represent longer notes, carries rather little conviction."

<sup>74</sup>Günter Fleischhauer, "Rome, §I: Ancient", *The New Grove*, Vol. XVI, 146-53.

<sup>75</sup>Martin Litchfield West, *Ancient Greek Music*, Oxford: Clarendon Press, 1992, 324-25.

<sup>76</sup>Jean-Marie Sansterre, *Les moines grecs et orientaux à Rome aux époques byzantine et carolingienne (milieu du VI<sup>e</sup> s. — fin du IX<sup>e</sup> s.)*, 2 vols., Bruxelles: Palais des Académies, 1982. See especially I, 215, where the author establishes that Greek monks participated in Roman basilical psalmody. See also K. G. Fellerer, *Deutsche Gregorianik*, 16, where, based on Sidonius Apollinarius, reference is made to the presence of Syrian singers in Ravenna and other Italian towns.

<sup>77</sup>"Vidi enim multos acutissimos philosophos, qui pro studio huius artis non solum Italos, sed etiam Gallos atque Germanos, ipsosque etiam Græcos quæsiwere magistros": M. Gerbert, *Scriptores*, II, 43-50 [45]. The *Epistola de ignoto cantu*, from which this excerpt is taken, is found translated in Oliver Strunk, *Source Readings in Music History, I: Antiquity and the Middle Ages*, London: Faber & Faber, 1981, 121-25.

<sup>78</sup>An extensive bibliography on the subject of this influence is given in Kenneth Levy, "Byzantine rite, music of the", *The New Grove*, 553-66 [565-66].

<sup>79</sup>The harmonic system proposed by Archytas is expounded in Martin Vogel, "Vierteltöne bei den Griechen", *Microtöne III: Bericht über das 3. internationale Symposium*, ed. Horst-Peter Hesse, Innsbruck: Helbling, 1990, 77-84.

<sup>80</sup>Reginald Pepys Winnington-Ingram, "Aristoxenus", *The New Grove*, Vol. I, 591-92. For a defense of the Pythagorean school, see Martin Vogel, *Die Enharmonik der Griechen. I. Teil: Tonsystem und Notation*, Düsseldorf: Verlag der Gesellschaft zur Förderung der systematischen Musikwissenschaft e. V., 1963, 57, 142-44.

- <sup>81</sup>M. Vogel, *Die Enharmonik der Griechen*, 143. Samuel Baud-Bovy, "Le «genre enharmonique» a-t-il existé?", *Revue de Musicologie*, Vol. 72 (1986), 5-21. Aristoxenus's theoretical reliability has been however sustained by Annie Bélis, *Aristoxène de Tarente et Aristote. Le Traité d'Harmonique*, Paris: Klincksieck, 1986, and also by Lionel Pearson in his edition and translation of Aristoxenus, *Elementa Rhythmica. The Fragment of Book II and the Additional Evidence for Aristoxenean Rhythmic Theory*, Oxford: Clarendon Press, 1990.
- <sup>82</sup>Lukas Richter, "Ptolemy, Claudius", *The New Grove*, Vol. XV, 427-29.
- <sup>83</sup>According to François Auguste Gevaert, *Histoire et théorie de la musique de l'antiquité*, I, Gand, 1875, 302-3, the enharmonic genus disappeared at the beginning of our era, then the chromatic followed its steps into oblivion; see however M. L. West, *Ancient Greek Music*, 164-66, where the possibility of a marginal survival of the enharmonic genus is entertained.
- <sup>84</sup>Converted into cents, the measures of the enharmonic interval proposed before Ptolemy varied between 44 and 66 cents; Ptolemy's measures widened this difference. Cf. M. L. West, *Ancient Greek Music*, 168-69.
- <sup>85</sup>F. A. Gevaert, *Histoire et théorie*, 291-92, 325-27. Théodore Reinach, *La musique grecque*, Paris: Payot, 1926, 20-21.
- <sup>86</sup>F. A. Gevaert, *Histoire et théorie*, 325, 331-33; Reginald Pepys Winnington-Ingram, "Greece, §I, 6: Ancient, Intonation", *The New Grove*, Vol. 7, 663-64; M. L. West, *Ancient Greek Music*, 168-70.
- <sup>87</sup>Jacques Chailley, *La musique grecque antique*, Paris: "Les Belles-Lettres", 1979, 137; M. L. West, *Ancient Greek Music*, 168.
- <sup>88</sup>F. A. Gevaert, *Histoire et théorie*, 325-27.
- <sup>89</sup>F. A. Gevaert, *Histoire et théorie*, 321, 330; Reginald Pepys Winnington-Ingram, *Mode in Ancient Greek Music*, Cambridge: Cambridge University Press, 1936, 78; id., "Greece, §I, 6", 664; M. L. West, *Ancient Greek Music*, 170.
- <sup>90</sup>Nicolaus Sallmann (ed.), *Censorini De die Natali liber*, Leipzig: Teubner, 1983. French translation and commentary by Guillaume Rocca-Serra, *Censorinus. Le Jour Natal*, Paris: J. Vrin, 1980. Discussion of musical contents by Amy Kusian Holbrook, "The Concept of Musical Consonance in Greek Antiquity and Its Application in the Earliest Medieval Descriptions of Polyphony" (Ph. D. diss., University of Washington, 1983), 174-77. On the manuscript transmission of Censorinus in the eight and ninth centuries, see Nancy Phillips, "L'enseignement de la théorie des modes du IXe au XIIe siècle", *L'enseignement de la musique au Moyen Age et à la Renaissance. Colloque, 5 et 6 juillet 1985*, Royaumont: Éditions Royaumont, 1987, 96-107 [99, 106].
- <sup>91</sup>Macrobius, *Commentarii in somnium Scipionis*, ed. Iacobus Willis, Leipzig: Teubner, 1963. Translated with an Introduction and Notes by William Harris Stahl, *Commentary on the Dream of Scipio by Macrobius*, New York: Columbia University Press, 1952. Bilingual Latin-Italian edition by Luigi Scarpa: *Macrobius Ambrosii Theodosii, Commentariorum in somnium Scipionis Libri duo*, Padova: Liviana Editrice, 1981. Summary of musical contents in A. K. Holbrook, "The Concept of Musical Consonance", 170-74. The influence of Macrobius is discussed in Michel Huglo, "The Study of Ancient Sources of Music Theory in the Medieval University", *Music Theory and Its Sources. Antiquity and the Middle Ages*, ed. André Barbera, Notre Dame, Indiana: University of Notre Dame Press, 1990, 150-72.
- <sup>92</sup>M. Capella, *De nuptiis Philologiae et Mercurii*. English translation in W. H. Stahl and R. Johnson, *Martianus Capella . . . Vol. II. Discussion of musical contents in William Harris Stahl and Richard Johnson, Martianus Capella and the Seven Liberal Arts, Vol. I: The Quadrivium of Martianus Capella*, New York:

Columbia University Press, 1971; and A. K. Holbrook, "The Concept of Musical Consonance", 185-94.

<sup>93</sup>Iohann Wrobel (ed.), *Platonis Timæaus interprete Chalcidio cum eiusdem commentario*, Leipzig: Teubner, 1876. Discussion of musical contents by A. K. Holbrook, "The Concept of Musical Consonance", 177-85. On Calcidius' influence in the ninth century and beyond, see N. Phillips, "L'enseignement", 99-100, 106; and M. Huglo, "The Study of Ancient Sources", 166-68.

<sup>94</sup>Anicius Manlius Severinus Boethius, *De institutione arithmetica libri duo, De institutione musica libri quinque, accedit Geometria quæ fertur Boetii*, ed. Gottfried Friedlein, Leipzig: Teubner, 1867. Id., *Fundamentals of Music*, Translated, with Introduction and Notes, by Calvin M. Bower, New Haven: Yale University Press, 1989. On the influence of Boethius on medieval musical theory, see Calvin Martin Bower, "Boethius' The Principles of Music, An Introduction, Translation, and Commentary" (Ph. D. diss., George Peabody College, 1966), 454-63.

<sup>95</sup>Flavius Magnus Aurelius Cassiodorus, *De artibus ac disciplinis liberalium litterarum*, ed. J.-P. Migne, PL 70, Paris, 1865, cols. 1149-1220 [1208-12]. I was not able to consult the more recent edition by Roger Aubrey Baskerville Mynors, *Cassiodori Senatoris Institutiones*, Oxford: Clarendon Press, 1937. The section dealing with music was translated by O. Strunk, *Source Readings*, I, 87-92. On the influence of Cassiodorus, see Nancy Phillips, "Classical and Late Latin Sources for Ninth-Century Treatises on Music", *Music Theory and Its Sources. Antiquity and the Middle Ages*, ed. André Barbera, Notre Dame, Indiana: University of Notre Dame Press, 1990, 100-35.

<sup>96</sup>Book 2, I. 23, 4.13 (ed. Willis: 99, 109).

<sup>97</sup>Section XLV (ed. Wrobel: 112).

<sup>98</sup>Book IX, 930-57 (ed. Dick: 494-50).

<sup>99</sup>See notes to C. M. Bower's translation of Book IV, 5-12 (Boethius, *Fundamentals of Music*, 126-46).

<sup>100</sup>I, 21; III, 8; III, 10; V, 16 (ed. Friedlein: 213, 278, 331, 366).

<sup>101</sup>Michael Bernhard and Calvin M. Bower (eds.), *Glossa maior in institutionem musicam Boethii*, 3 vols., München: Verlag der Bayerischen Akademie der Wissenschaften, 1993-1996, I, 291-92, III, 251-53, 339, 352.

<sup>102</sup>Cora E. Lutz, *Remigii Autissiodorensis commentum in Martianum Capellam*, Vol. 1: Libri I-III, Vol. 2: Libri III-IX, Leiden: E. J. Brill, 1962, 1965. English translation of Liber IX with facing Latin text: Philip M. Smith, "Remigius Autissiodorensis Commentum in Martianum Capellam: A Translation and Commentary" (Ph. D. diss., The Florida State University, 1987). Direct or indirect references to the enharmonic genre are found on pages 256-60, 310-17 and 323 of Smith's dissertation.

<sup>103</sup>M. Gerbert, *Scriptores*, I, 312-30 [315, 320, 326-27]. On the attribution of this treatise, see Michel Huglo, "Gerbert d'Aurillac", in *The New Grove*, Vol. 7, p. 250. The treatise was formerly attributed to Gerbert's pupil Bernelinus.

<sup>104</sup>"De monocordo et consonantiis" and "De divisione monochordi", ed. and transl. by Marie-Elisabeth Duchez, in *Odorannus de Sens. Opera omnia*, Paris: C.N.R.S., 1972, 198-201, 202-25.

<sup>105</sup>Joseph Smits van Waesberghe (ed.), *Bernonis Augiensis abbatis de arte musica disputationes traditæ, Pars A: Bernonis Augiensis, De mensurando monochordo* [DMA. A.VIa], Buren: Fritz Knuf, 1978, 42-43, 55. The treatise is generally referred to as Gerbert Anonymous I (M. Gerbert, *Scriptores*, I, 330-38).

<sup>106</sup>Joseph Smits van Waesberghe (ed.), *Aribonis De musica* [CSM 2], Rome:

American Institute of Musicology, 1951, 36.

<sup>107</sup>Joseph Smits van Waesberghe (ed.), *Musica Domni Heinrici Augustensis Magistri* [DMA. A.VII], Buren: Frits Knuf, 1977, 36. The attribution of this treatise is not certain: see Valerie I. J. Flint, "Heinricus of Augsburg and Honorius Augustodunensis: Are They the Same Person?", *Revue bénédictine* XCII (1982), 148-58, reprinted in id., *Ideas in the Medieval West: Texts and Their Contexts*, London: Variorum Reprints, 1988.

<sup>108</sup>P. Cölestin Vivell (ed.), *Frutolfi Breviarium de musica et Tonarius*, Wien: Akademie der Wissenschaften, 1919, 86, 92-94.

<sup>109</sup>M. Gerbert, *Scriptores*, I, 122-25. On the non-attribution to Hucbald of the *Cita et vera divisio monochordi* published by Gerbert, see Richard L. Crocker, "Hucbald", *The New Grove*, vol. 8, 758-59.

<sup>110</sup>Version B of the *Commentarius in Martianum Capellam*, as yet unpublished, quoted in Joseph Smits van Waesberghe, "La place exceptionnelle de l'Ars Musica dans le développement des sciences au siècle des Carolingiens", *Revue grégorienne*, 31 (1952), 81-104 [93]. The sources for the version B are listed in Colette Jeudy, "Remigii autissiodorensis opera (*Clavis*)", *L'École Carolingienne d'Auxerre. De Murethach à Remi, 830-908. Entretiens d'Auxerre 1989*, Paris: Beauchesne, 1991, 457-500 [489-94].

<sup>111</sup>M. Gerbert, *Scriptores*, I, 303-12 [306-7, 310-12].

<sup>112</sup>M. Gerbert, *Scriptores*, I, 338-42 [338-39].

<sup>113</sup>C. Meyer, *Mensura monochordi*, 232-34.

<sup>114</sup>M. Gerbert, *Scriptores*, I, 345-47.

<sup>115</sup>Michael Bernhard (ed.), *Anonymi saeculi decimi vel undecimi tractatus de musica "Dulce ingenium musicae"*, München: Bayerischen Akademie der Wissenschaften, 1987, 14-17, 27-39.

<sup>116</sup>C. Meyer, *Mensura monochordi*, 5-7.

<sup>117</sup>C. Meyer, *Mensura monochordi*, 39-43.

<sup>118</sup>Rudolf Steglich, *Die Quaestiones in Musica. Ein Choraltraktat des zentralen Mittelalters und ihr mutmaßlicher Verfasser Rudolf von St. Trond (1070-1138)*, Leipzig: Breitkopf & Härtel, 1911, 64-65, 67-68, 89, 173-74.

<sup>119</sup>Yves Chartier, *L'oeuvre musicale d'Hucbald de Saint-Amand. Les compositions et le traité de musique*, Montréal: Bellarmin, 1995, Appendix X, 403-4.

<sup>120</sup>C. Meyer, *Mensura monochordi*, 231.

<sup>121</sup>C. Meyer, *Mensura monochordi*, 22-23.

<sup>122</sup>C. Meyer, *Mensura monochordi*, 11-12.

<sup>123</sup>M. Bernhard and C. Bower, *Glossa maior*, III, Appendix IV, 383-86.

<sup>124</sup>M. Gerbert, *Scriptores*, I, 230-47 [244]; Mary P. LeRoux, "The 'De harmonica institutione' and 'Tonarius' of Regino of Prüm" (Ph. D. diss., The Catholic University of America, 1965), 71.

<sup>125</sup>M. Gerbert, *Scriptores*, I, 343-44.

<sup>126</sup>Joseph Smits van Waesberghe (ed.), *Guidonis Aretini: Micrologus* [Corpus Scriptorum de Musica, 4], American Institute of Musicology, 1955, 133-38.

<sup>127</sup>M. Gerbert, *Scriptores*, I, 285-302 [288].

<sup>128</sup>Christian Meyer, "Le *De synemmenis* et sa tradition. Contribution à l'étude des mesures du monochorde vers la fin du XIII<sup>e</sup> siècle", *Revue de Musicologie*, 76 (1990), 83-95 [87].

<sup>129</sup>The interpolator of the *Micrologus* is exceptional in that he does not mention the enharmonic genus; his explanation about the enharmonic division of the monochord is part of a discussion of chant as it was actually sung in the eleventh century, a discussion in which the author avoids becoming

entangled in Greek harmonic theory. The interpolation is printed below, with a revised musical example, translation and commentary.

<sup>130</sup>Cf. C. Meyer, *Mensura monochordi*, 7, 53, 231. The relationship between texts and their illustrations is sometimes puzzling, suggesting a tension between the Boethian theoretical tradition and the transmission of monochord-related diagrams.

<sup>131</sup>F. Raillard, *Mémoire explicatif*, 11.

<sup>132</sup>C. Meyer, *Mensura monochordi*, xxxvi-xxxvii.

<sup>133</sup>Michael Bernhard, "Glossen zur Arithmetik des Boethius", *Scire litteras. Forschungen zum mittelalterlichen Geistesleben*, München: Verlag der Bayerischen Akademie der Wissenschaften, 1988, 23-34 [30]: "*Armonica enim dicitur omnis consonantia a tertio genere quod armonicon dicitur, quod est suavius caeteris. Primum enim dicitur cromaticum, quod est dissolutissimum, et constat in cantilenis feminarum [...]. Secundum vocatur diatonicum, quod est durissimum, et hoc apud Scottos et Brittones. Tertium dicitur armonicum, quod est dulcissimum et ex duobus compositum*".

<sup>134</sup>J. S. van Waesberghe, *Bernonis Augiensis*, 42-43: "*Diatonicum [...] Hoc genus fortius et durius comprobatur, et, ne animi audientium vel canentium dulcedine cantus emolliantur, ecclesiastico usui eligitur [...] Chromaticum [...] Hoc genus mollissimum comprobatur, quocirca ecclesiastico usui non applicatur [...] Enharmonium [...] Hoc genus quasi medietatis locum possidet, ut nec durum, nec molle sit, sed, ex utrisque compositum, dulcescit*".

<sup>135</sup>F. Raillard, *Mémoire explicatif*, 13: "Le genre qui convient au chant ecclésiastique est le diatonique, à cause de son caractère mâle et énergique [...] Mais la dureté de ce genre y a été tempérée par un mélange discret et modéré du genre enharmonique".

<sup>136</sup>*Diesis est spatia quaedam et deductiones modulandi atque vergentes de uno in altero sono*: San Isidoro de Sevilla, *Etimologías*, I (Libros I-X), Madrid: Biblioteca de Autores Cristianos, 1982 [bilingual Latin-Spanish edition by Jose Oroz Reta and Manuel-A. Marcos Casquero, with an introduction by Manuel C. Diaz y Diaz], 446. Translation taken from O. Strunk, *Source Readings*, 93-100 [96]. A rather different translation ("*Diesis* is a particular space and those intervals involved in moving and changing from one tone into another") is proposed in Helen Dill Goode and Gertrude C. Drake (trans.), *Cassiodorus: Institutiones, Book II, Chapter V / Isidore of Seville: Etymologies, Book III, Chapters 15-23*, Colorado Springs: Colorado College Music Press, 1980.

<sup>137</sup>I transcribe the complete passage exactly as quoted by J. Smits van Waesberghe, "La place exceptionnelle", 93n: "*Tria sunt genera musicæ, i. cromaticum i. colorabile. Cromaticum genus dicitur. i. colorabile. quod ex enarmonico genere et diatonico temperatur. Diatonicum namque durum est et asperum . quo utuntur britones. Enarmonicum vero molle et fluxum . quasi morosum . quo romani uti solent. Cromaticum vero nec nimis durum est nec nimis molle . sed ex utrisque temperatum. Croma. i. color. Diatonicum. quod in tonis sit. Enarmonicum. i. adunativum. quando adunatur vox*" (my italics). Peter Jeffery notes (personal communication, June 1997) that the Pseudo-Remigius is not alone in stating that the diatonic genus is hard and sung by Barbarians (cf. C. E. Lutz, *Remigii Autissiodorensis*, Vol. 2, 345, and the gloss on Boethius's *De institutione arithmetica* quoted above).

<sup>138</sup>J. S. van Waesberghe, "La place exceptionnelle", 93: "le pseudo-Rémi croit devoir ranger le grégorien dans l'*enharmonicon-genus*, le genre enharmonique, et non dans le diatonique, qu'il appelle rude et dur et trouve appliqué dans le chant populaire anglais."

<sup>139</sup>Simon M. Cserba (ed.), *Hieronymus de Moravia O. P., Tractatus de musica*, Regensburg, 1935 [Freiburg. Stud. z. Musikwissensch., 2], Chapter 25. The following quote is taken from a forthcoming new edition, prepared by Marcel Pérès, who kindly put it at my disposal: "*Gaudent insuper cum modum organicum notis ecclesiasticis admiscunt quod etiam non abicit primus modus, necnon et de admixtione modorum duorum generum, relictorum. Nam diesim enarmonicam et triemitonium chromaticum generi diatonico associant. Semitonium loco toni et e conuerso commutant. In quo quidem a cunctis nacionibus in cantu discordant*". On the origin of Hieronymus, see Michel Huglo, "La Musica du Fr. Prêcheur Jérôme de Moray", *Max Lutölf zum 60. Geburtstag. Festschrift*, ed. by Bernhard Hangartner and Urs Fischer, Basel: Wiese Verlag, 1994, 113-16. On the date and destination of the treatise, see Michel Huglo, "La place du *Tractatus de Musica* dans l'histoire de la théorie musicale du XIII<sup>e</sup> siècle", *Jérôme de Moravie. Un théoricien de la musique dans le milieu intellectuel parisien du XIII<sup>e</sup> siècle*, ed. Christian Meyer, Paris: Editions Creaphis, 1992, 33-42, and Christian Meyer, "Lecture(s) de Jérôme de Moravie", *ibid.*, 55-74.

<sup>140</sup>R. Schlecht, "Versuch einer kritischen Erklärung des Kap. X im Micrologus des Guido von Arezzo. Gerb. Script. II. p. 10", *Monatshefte für Musik-Geschichte*, IV (1872), 136-49, 153-60 [146, 157]. M. Hermesdorff (ed.), *Micrologus Guidonis de disciplina artis musicae* [presents M. Gerbert's Latin text with facing translation and commentaries], Trier, 1876, 50-64 [53, n2].

<sup>141</sup>A. J. H. Vincent, "Supplément".

<sup>142</sup>Joseph Smits van Waesberghe, *Musikerziehung (Musikgeschichte in Bildern, III/3)*, Leipzig: VEB Deutscher Verlag für Musik, 1969, Abb. 52, p. 113.

<sup>143</sup>Joseph Smits van Waesberghe, "The Musical Notation of Guido of Arezzo", *Musica disciplina*, V (1951), 15-53.

<sup>144</sup>Joseph Smits van Waesberghe (ed.), *Expositiones in Micrologum Guidonis Aretini* [Musicologica Medii Aevi, I], Amsterdam: North-Holland Publishing Company, 1957, 95-172.

<sup>145</sup>M. Gerbert, *Scriptores*, II, 2-24.

<sup>146</sup>Ambrogio M. Amelli, *Guidonis monachi Aretini Micrologus ad praestantiores codices mss. exactus*, Roma, 1904.

<sup>147</sup>J. S. van Waesberghe, *Guidonis Aretini*.

<sup>148</sup>R. Schlecht, "Versuch", 159-60; *id.*, "Micrologus Guidonis de disciplina artis musicae", *Monatshefte für Musikgeschichte*, V (1873), 135-77. M. Hermesdorff, *Micrologus*.

<sup>149</sup>Claude V. Palisca (ed.) and Warren Babb (trans.), *Hucbald, Guido and John on Music — Three Medieval Treatises*, New Haven/London: Yale University Press, 1978, 57-83 [66].

<sup>150</sup>Marie-Noël Colette and Jean-Christophe Jolivet (trans. and comm.), *Guido d'Arezzo: Micrologus*, Paris: Éditions IPMC, 1993.

<sup>151</sup>A. J. H. Vincent, "Supplément".

<sup>152</sup>François Auguste Gevaert, *Histoire et théorie de la musique de l'antiquité*, Vol. I: Gand, 1875, 335-36 (note). Paragraphs (c) and (h) were only partially translated.

<sup>153</sup>J. Froger, "Les prétendus quarts de ton", 163-64.

<sup>154</sup>D. Hughes, "Evidence", 395.

<sup>155</sup>R. Baralli, "L'episema del ms. H 159 di Montpellier", in *Rassegna Gregoriana*, X (1911), cols. 11-28, 109-36 [135].

<sup>156</sup>A preliminary Portuguese translation was first prepared together with

Father José Raposo, S. J.; for the English version presented here, I had recourse to the invaluable help of Dr. Rip Cohen.

<sup>157</sup>Boethius, *De institutione*, 341; *Musica et Scolica enchiridis*, ed. Hans Schmid, München: Bayerische Akademie der Wissenschaften, 1981, 13. The passage is discussed in Charles M. Atkinson, "On the Interpretation of *Modi, quos abusive tonos dicimus*", *Hermeneutics and Medieval Culture*, ed. Patrick J. Gallacher and Helen Damico, Albany (N.Y.): State University of New York Press, 1989, 147-61.

<sup>158</sup>Schlecht presents a confused view of the interpolation: he acknowledges the modal character of *protus*, takes *tritus* and *tetrardus* as meaning "third and fourth scale degrees", but he is forced to make them equivalent also to the sixth and seventh degrees; and he has the author oscillate between two incompatible concepts of *diesis*. The melodic situations which he thinks are implied by the author do not occur in the given musical example, and his *dieses* can not be found in the monochord. His interpretation is misguided by the belief that the interpolation has as its horizon the polyphonic *musica ficta* of the early thirteenth-century.

<sup>159</sup>Fraselle and Germain interpret *protus*, *tritus* and *tetrardus* as denoting the characteristic note or notes of a oktoechos-based, narrowly defined modal ambitus (the lowest note of the 7th mode is said to be a G, and that of the 8th mode, a D, and thus *tetrardus* is said to be equivalent to a scale whose lowest note is either a G or a D). Hermesdorff takes as his starting point also the modal ambitus, which, in his view, includes both the plagal and the authentic forms of each mode, and always has a fourth below the final degree. He then proceeds to identify the *tritus* with the class composed of degrees below the modal final, and the *tetrardus* with the class of modal finals; the *protus*, in the authentic form of the mode, corresponds to the *tetrardus*, but also takes the meaning of "first mode". Nisard views the *protus*, *tritus* and *tetrardus* as representing the first, third and fourth degrees in the solmization hexachord ut, mi, fa(=ut in the next hexachord), which he then identifies, respectively, with the scale degrees Gamma, C, G, c (all ut); B, E, h, e (all mi); and C, F, c, f (all fa). These interpretations should not be taken seriously. Fraselle and Germain read the text through concepts which are both foreign to it and erroneously dealt with (in the oktoechos, the lowest note of an authentic modal ambitus should not be identified with its final). Their *dieses* occur in places where, in the monochord and according to the text, they are not provided. Finally, they arrive at conclusions which have no parallel in the musical example, either in general (the example is in first mode, and they interpret the interpolation as saying that the *dieses* apply only to the 5th and 6th modes) or in particular (none of the possible melodic contours which they think are implied in the text is found in the example). Hermesdorff, influenced by Schlecht's interpretation, distinguishes artificially between the *diesis* proper, the use of which is criticized, and the legitimate use, as cadential leading tones, of sharpened third and sixth degrees of the scale forming an interval of about two-thirds of a tone with the modal final above. He also attributes two completely different meanings to the term *protus*. The sharpened tones regarded as legitimate are the same as Schlecht's, and suffer from the same inconsistency in relation to example and monochord division. Nisard's approach is imaginative, but entirely lacking in textual support. He tries to find it instead in the Dijon Tonary, which he thinks is a twelfth-century manuscript partially aimed at the clarification, through special signs, of the rules of solmization: again, a vain supposition.

<sup>160</sup>D. Hughes, "Evidence", 395 n.

<sup>161</sup>Quoted by T. Nisard, *L'archéologie*, 167.

<sup>162</sup>F. Raillard, *Mémoire explicatif*, 12-13.

<sup>163</sup>Quoted by A. J. H. Vincent, "Supplément", 675.

<sup>164</sup>Fraselle and Germain, *Études et recherches sur la théorie et l'histoire du chant grégorien*, Namur: Wesmael-Legros, 1857/1858, cit. by T. Nisard, *L'archéologie*, 162-67.

<sup>165</sup>J. Pothier, *Les mélodies*, 26-27.

<sup>166</sup>R. Baralli, "L'episema", 130-31. It should be remarked, however, that Guido uses the Gamma to notate melodies, and not just to complete a theoretical scale, as Baralli implies.

<sup>167</sup>M. Hermesdorff, *Micrologus*, 57n.

<sup>168</sup>Joseph Smits van Waesberghe, *De musico-pædagogico et theoretico Guidone Arefino*, Firenze: L. Olschki, 1953, 140n, lists nine manuscript sources for the *Micrologus*'s interpolation. This list includes all the manuscripts referred to in the critical apparatus of the edition, except G. In its place we find W2 (Wolfenbüttel, Herzog-August-Bibliothek, 334 Gud. Lat. 8°, from the eleventh and twelfth centuries). Possibly the sigla W2 and G refer both to this source.

<sup>169</sup>The table reproduces correctly the example in F1, recently published in facsimile: Alma Santosuosso (ed.), *Firenze, Biblioteca Nazionale Centrale, Conventi soppressi, F.III.565*, Ottawa: The Institute of Mediæval Music, 1994 [fol. 14].

<sup>170</sup>R. Schlecht, "Versuch", 144.

<sup>171</sup>M. Hermesdorff, *Micrologus*, 55n.

<sup>172</sup>J. Gmelch, *Die Viertelstonstufen*, 23-57. J. Jeanneteau, *Los modos*, 36, 48, 122, 140-41, 274-80.

<sup>173</sup>I. de Loos, "Een speciale halvetoonsneum". M. P. Ferreira, "The Cluny Gradual".

<sup>174</sup>The manuscript, long known as Codex Bohn, was written in the early thirteenth century and is acephalous: it starts with the communion *Erubescant et conturbentur* for the Friday after the first Sunday in Quadragesima. It includes the full Introit psalmody and the Offertory versicles. I. de Loos ("Een speciale halvetoonsneum", 27) pointed out that some Trier MSS (including this one) belong to the Sta/Ult notational school. P. Wagner, *Einführung*, II, 332, reproduces a page containing the offertory *Gressus meos*; there is only one special neume here, over *eloquium*. The Gradual makes, in fact, sparing use of special neumes (except when they correspond to a *gutturalis* in the oldest manuscripts). Very often, a clivis which is identified by the above sources as having microtonal character is presented as a virga. I compared TRE 2 with CLU 1, DIJ 1, STA 1 and ULT in fifty-one pieces where at least one of these sources has special neumes; in twenty-five pieces, TRE 2 also has one or more special signs, making a total of 49 occurrences (36 of which corresponded by at least one other manuscript). These occurrences include twenty cases where the oldest sources have either a clivis or a torculus; in fourteen of these, TRE 2 is supported by three or all of the above manuscripts, and in four additional cases, it is corresponded by at least one Burgundian manuscript. This clearly means that TRE 2 records the same musical phenomenon.

<sup>175</sup>Cf. C. Meyer, *Mensura monochordi*, xxix-xxx, lviii.

<sup>176</sup>See, for instance, the introit *Populus Syon* and the graduals *Anima nostra*, *Exsurge Domine* and *Speciosus forma*.

<sup>177</sup>See the *Dialogus* of the Pseudo-Odo in M. Gerbert, *Scriptores*, I [253], and the treatise of John of Affligem in Joseph Smits Van Waesberghe (ed.), *Johannis*



*Affligemensis: De Musica cum Tonario* [Corpus Scriptorum de Musica, 1], Rome: American Institute of Musicology, 1950 [65-66].

<sup>178</sup>This is exactly how the chronicler of Saint-Trond justifies the way its prior Rodulf, in the early twelfth century, tried to overcome the conflict between customary "corrupt" singing and "true" theoretical rule when notating a new Gradual on staff: *quidquid alicubi in monocordo cantari potuit, de usu Ecclesiæ non prætermisit se præterire*: C. de Borman (ed.), *Chronique de l'Abbaye de Saint-Trond*, I, Liège, 1877, 124, cit. by F. de Meeûs, "Pour l'édition critique", 85; commentary by Antoine Auda, *L'École liégeoise au XIIe siècle. L'Office de Saint Trudon*, Paris: Au Bureau d'édition de la "Schola", 1911, 16-18.

<sup>179</sup>For historical and ethnomusicological illustrations of the intimate connection between singing style and composition in oral transmission, see David Nutter, "Ippolito Trombocino, "Cantore al Liuto"", *I Tatti Studies. Essays in the Renaissance*, Vol. 3, Firenze: Leo S. Olschki, 1989, 127-74 [138-39] and Judith R. Cohen, "'Pero la voz es muy educada': Reactions to Evolving Styles in Judeo-Spanish Song Performance", *Sephardica 1: Hommage à Haïm Vidal Séphina*, ed. Winfried Busse et al., Berlin: Peter Lang, 1996, 65-82.

## CHAPTER 6

## ADDITIONAL MUSICAL EVIDENCE

- 6.1 THE COMPARATIVE ANALYSIS
- 6.2 COMMENTARY. MICROTONAL NEUMES
- 6.3 OVERALL MODAL DISTRIBUTION

## 6.1 THE COMPARATIVE ANALYSIS

The comparative analysis on which the present chapter is based (Appendix 2) consists primarily of a comparison between CLU 1, DIJ 1, STA 1 and ULT (here identified simply as Clu, Dij, Sta and Ult) concerning the use of microtonal indications in ninety compositions. Supplementary information taken from TRE 2 (Trier Stadtbibliothek MS 2254/2197) is additionally given.

The standard modal assignment for the ninety chants selected is as follows:

Modes	INTR.	GRAD.	TRACTS	OFFERT.	COMUN.	Total
I	1	2	-	3	-	6
II	4	1	2	4	1	12
III	7	8	-	4	1	20
IV	9	1	-	3	1	14
V	1	5	-	2	1	9
VI	-	-	-	-	-	0
VII	1	4	-	1	1	7
VIII	6	-	2	12	2	22

The *Deuterus* (modes III and IV) and the plagal *Tetrardus* (mode VIII) are prominent. In the distribution of the locations, mode II is given an important position as well, due to the 78 cases that correspond to the two tracts alone:

Modes	Number of locations	
I	22	(3.2%)
II	123	(17.7%)
III	212	(30.6%)
IV	108	(15.6%)
V	38	(5.5%)
VII	33	(4.8%)
VIII	157	(22.7%)

The modal distribution of the locations in each MS is shown in the following table:

Modes / MSS	Dij	Ult	Sta	Clu
I	13 (2.8%)	11 (3.9%)	11 (4.6%)	9 (4.1%)
II	82 (17.9%)	49 (17.6%)	35 (14.5%)	20 (9.2%)
III	153 (33.5%)	77 (27.6%)	84 (34.8%)	67 (30.7%)
IV	74 (16.2%)	43 (15.4%)	32 (13.3%)	32 (14.7%)
V	17 (3.7%)	17 (6.1%)	15 (6.2%)	12 (5.5%)
VII	14 (3.1%)	19 (6.8%)	12 (5.0%)	8 (3.7%)
VIII	104 (22.8%)	63 (22.6%)	52 (21.6%)	70 (32.1%)
Totals	457	279	241	218

The third mode always corresponds to around 30% of the sample, and the fourth mode, to around 15%. Clu behaves differently from the other MSS., in that it gives a low percentage to the second mode and a higher percentage to the eighth. The degree to which this sample can be taken as representing the overall behavior of the MSS. can be indirectly assessed through comparison with Joseph Gmelch's results relative to the Dijon Tonary in its entirety<sup>1</sup>:

Modes	Number of special signs	
I	125	(10.2%)
II	146	(11.9%)
III	292	(23.8%)
IV	226	(18.4%)
V	85	(6.9%)
VI	32	(2.6%)
VII	123	(10.0%)
VIII	199	(16.2%)

Total number of special signs: 1228

# Abbreviations:

BIV	Bivirga (in St. Gall notation)
CEP	Cephalicus
CLV	Clivis (alone or in composition; includes clivis prepunctis and the clivis element in the scandicus flexus, the porrectus flexus and the quilisma flexum)
CLM	Climacus
CRE	Climacus resupinus
EPI	Epiphonus
GUT	Gutturalis (in the St. Gall tradition, supported either by Laon or Chartres, or both)
[GUT]	Gutturalis (only in the St. Gall tradition)
ORI	Oriscus
[ORI]	Oriscus (only in the St. Gall tradition)
PCP	Pes conpunctis
PEL	Pes liquescens
PES	Pes
POR	Porrectus (alone or in composition)
PPP	Pes prepunctis
PRE	Pressus
[PRE]	Pressus (only in the Laon or the St. Gall tradition)
PRR	Pressus resupinus
PSP	Pes subpunctis (including the resupinus variety)
PUN	Punctum (tractulus or punctum in the St. Gall tradition, a single note in other sources)
QUI	Quilisma

QPP	Quilisma prepunctis
SAL	Salicus
[SAL]	Salicus (only in the St. Gall tradition)
SCA	Scandicus
SSP	Scandicus subpunctis (including the resupinus variety)
STR	Strophicus
TOR	Torculus (alone or in composition)
TRE	Torculus resupinus
TRI	Trigon
VIR	Virga (in the St. Gall tradition, a single note in other sources)

## 6.2 COMMENTARY. MICROTONAL NEUMES

6.2.1 General introduction

The ninety pieces examined here include 693 locations where at least one of the four main manuscripts collated gives a special neumatic sign for melic inflection. For 689 of these locations the identity of the neume presumably found in the notated archetype(s) could be established, as far as the method followed here allows for a safe reconstruction<sup>2</sup>.

In the present sample, the neumes identified as probably present in the earliest notated Graduals are distributed as follows:

Bivirga (in St. Gall notation) . . . . .	13
Cephalicus . . . . .	9
Clivis (alone or in composition; includes clivis prepunctis and the clivis element in the scandicus flexus, the porrectus flexus and the quilisma flexum) . . .	292
Climacus . . . . .	25
Climacus resupinus . . . . .	3
Epiphonus . . . . .	8
Gutturalis (in the St. Gall tradition, supported either by Laon or Chartres, or both) . . . . .	26
<i>[Gutturalis (only in the St. Gall tradition) . . . . .]</i>	<i>.15]</i>
Pes . . . . .	32
Pes conpunctis . . . . .	2

Pes liquescens . . . . .	1
Pes prepunctis . . . . .	1
Pes subpunctis (including the resupinus variety) . . . . .	26
Porrectus (alone or in composition) . . . . .	29
Pressus . . . . .	12
Pressus resupinus . . . . .	8
<i>[Pressus (only in the Laon or the St. Gall tradition) . . . . .]</i>	<i>4]</i>
Punctum (tractulus or punctum in the St. Gall tradition, a single note in other sources) . . . . .	44
Quilisma . . . . .	10
Quilisma prepunctis . . . . .	4
Salicus . . . . .	25
<i>[Salicus (only in St. Gall) . . . . .]</i>	<i>1]</i>
Scandicus . . . . .	1
Scandicus subpunctis (including the resupinus variety) . . . . .	8
Strophicus . . . . .	2
Torculus (alone or in composition) . . . . .	62
Torculus resupinus . . . . .	11
Trigon . . . . .	2
Virga (in the St. Gall tradition, a single note in other sources) . . . . .	33



These results are to be viewed as encompassing different, even contrasting situations. First of all, because the MSS compared represent different families of neumatic notation and one of them uses letter notation, only the descending microtonal movement (in the clivis, the torculus, or liquescent neumes) can be represented in all four. **Ult** and **Sta** are also able to represent a descending-ascending movement (in the special porrectus), granted that the first and last note are the same. **Ult** is probably capable of recording an ascending movement as well (this problem will be tackled in a moment). Because of its letter notation, **Dij** can represent every kind of microtonal movement, descending and ascending, and keep track of horizontal prolongations of such movements in a syllabic context (isolated notes). Therefore we can not expect, for instance, in locations where the archetype(s) had a porrectus, to find any help in **Clu**, which has neither letter notation nor a special kind of porrectus: only **Dij**, **Ult** and **Sta** can represent a porrectus-like microtonal inflection.

Consequently, different neumes require different evaluation criteria. A torculus or a clivis corresponding to a microtonal indication in three out of four manuscripts can be regarded as a neume that, originally, probably stood for a microtonal nuance (if, however, it occurs in an offertory verse, coincidence between **Dij** and **Clu** is all that we can expect, because the other two MSS lack the verses). A porrectus corresponding to a microtonal inflection in two out of three manuscripts can be similarly regarded, especially if the sources come from different geographical areas (i. e. if one of them is **Dij**). Other neumes require a careful evaluation of the context; special

attention will be given here to the nearby presence of an oriscus (either alone or in composition) or a quilisma.

### 6. 2. 2 Discussion of neume-categories

#### 1. The role of the oriscus

The meaning of the oriscus has divided scholars for over a century. Raillard made it equivalent to an unprepared single upper mordent (i.e. quick main and upper subsidiary notes, full main note)<sup>3</sup>. Houdard described it as a "broderie d'échappée", involving the upper and lower neighbor notes (i. e. main note, upper subsidiary, lower subsidiary, equivalent to F-G-E for an oriscus on F)<sup>4</sup>. Dechevrens viewed it as a combination of a quick upper appoggiatura with a turn<sup>5</sup>. In contrast with the tendency to see the oriscus as a kind of shake, Amédée Gastoué proposed that it originally functioned as a tonal warning. He considered it to have implied, up to the eleventh century, an interval of a quarter tone between itself and the preceding note, even if after the eleventh century it came to mean most often a repetition of the preceding note<sup>6</sup>. André Mocquereau concluded that the oriscus is a transitional note, slightly higher than the preceding one; the latter, being unstable in the diastematic manuscripts, is described as a special vocal inflection irreducible to the diatonic scale<sup>7</sup>. For Peter Wagner, the oriscus implies that the preceding pitch is non-diatonic, but he also regarded it as standing for a short sound followed by a shorter, lower subsidiary, not unlike a liquescence<sup>8</sup>; his theory mirrors the cases

where an oriscus in some manuscripts replaces a cephalicus in others<sup>9</sup> and the association of the oriscus with places where the text suggests liquescence<sup>10</sup>. Apel finds the meaning of the oriscus uncertain, but suggests that it represents a short ornament<sup>11</sup>. Blackley assumes that the oriscus-note begins slightly below pitch, then, once reaching pitch, bends up slightly; his interpretation is possibly inspired by the shape of the oriscus in one or more graphic traditions<sup>12</sup>.

After Dom Mocquereau, the monks of Solesmes and Cardine's Roman semiological school seem not to have paid much attention to the oriscus-problem. Eugène Cardine discusses passages where the oriscus is translated in the diastematic sources as a repetition of the preceding note, and passages where it is higher, without trying to account for this inconsistency or define the meaning of the neume<sup>13</sup>. Even after a quarter century of semiological research, Alberto Turco arrives at the melancholic conclusion that "dalla notazione dei manoscritti sembra che non si possa formulare un criterio circa l'impiego o meno dell'oriscus"<sup>14</sup>.

Guido Milanese nonetheless hypothesizes that the culminating oriscus is a phrasing sign similar to our *legato* and pointing to the following monosonic neume; he is however unable to explain: (a) why in the Aquitanian and Beneventan manuscripts it corresponds to an unstable note; (b) why most early sources (Laon 239, Chartres 47, Benevento VI. 33 and, not so clearly, St. Gall 359) are unanimous in using it only in the semitonal space; and particularly (c) why the St. Gall and Einsiedeln sources often disagree in their use of the oriscus<sup>15</sup>. Since the oriscus is associated with a half-step almost

everywhere else, the fact that the melodic context is generally not taken into account in St. Gall is striking. This disregard for melodic context is furthermore not restricted to the oriscus: Milanese points out that St. Gall goes against all the other early notational traditions in not using a distinct sign for the scandicus starting with a semitone<sup>16</sup>. Though we are accustomed to identify the St. Gall MSS with the most primitive form of the tradition, it is extremely unlikely that scribes working all over Europe would have arrived independently at exactly the same notational solution for the oriscus (and the semitonal scandicus). It is more logical to think that the oriscus had originally a meaning which made its use appropriate only in a semitonal context, that this meaning survived in most notational traditions, and that the peculiar usage of St. Gall is due to a local modification of the original meaning of the neume.

This should not surprise us, for, in Alberto Turco's words, "tra la riforma carolingia e l'apparire dei manoscritti gregoriani interamente notati e in nostro possesso trascorre un periodo di tempo di un secolo: il cod. C, sangallese 359, è datato agli inizi del 900; il cod. L. Laon 239, all'anno 930. Sicuramente sono stati preceduti da altri manoscritti e, probabilmente, da altre notazioni. È certo che la loro qualità grafica si ponga al vertice di qualsiasi altra notazione neumatica, ma può verificarsi che già in essi qualche segno abbia in parte perduto o mutato il suo significato originario"<sup>17</sup>. A clear example of a local change in the meaning of the oriscus is found in the tenth-century Nonantolan notation, which uses one of its forms to signify a long note<sup>18</sup>.

The instability (confirmed by points of variance 130 and 138) of both the note preceding the oriscus and that of the culminating oriscus can be explained by the old hypothesis, shared by Gastoué, Wagner and Mocquereau, of a microtonal interval existing between the oriscus and the preceding note<sup>19</sup>. The oriscus could either imply that the microtonal interval occurs just before itself, or just before the higher point of the melodic movement to which it belongs (when the oriscus is used as a culminating neume, the result is the same). Both alternatives are in accordance with one of the proposed etymologies of "oriscus", "a little hill" (from the Greek *oros* + *iskos*)<sup>20</sup>. The performance of the oriscus-note may have called for some special emission of the voice, but this supposition seems to me neither necessary (for a melodic function, albeit exceptional, is sufficient to justify the neume) nor verifiable (for the only possible clue, the shape of the oriscus in the Paleofrank notation, is not uniform<sup>21</sup>).

Three neumes involving the oriscus will be examined here. The first is the gutturalis (a neume which Cardine has called *virga strata*), which is composed of a single note (virga) plus oriscus; it stands for a small ascending movement followed by a lower note<sup>22</sup>. The second is the salicus, an ascending neume composed of at least three elements, the penultimate being an oriscus; scholars have long disagreed over its significance<sup>23</sup>. The third is the pressus, in which the penultimate note is, according to current scholarship, an oriscus which is in unison with the preceding note and is followed by a lower note<sup>24</sup>.

1.1 The *gutturalis* appears 26 times, always in a semitonal context, or (in sources of the St. Gall tradition) 41 times, 39 of them within the interval of a semitone<sup>25</sup>. In the ninety pieces that constitute our sample, the *gutturalis* makes its appearance in the St. Gall tradition 60 times, 55 of them in a semitonal context (H-C or E-F in the Vatican edition).

Thirty-nine cases out of fifty-five represent a very large proportion (almost three fourths); but before conclusions can be drawn from this fact, a closer look at the situation is in order. The 39 cases in St. Gall correspond to Dij alone 20 times; to Ult alone 10 times; to Dij plus Ult 4 times; to Dij, Ult and Sta together 4 times, and to Dij plus Sta, once. The 26 cases in the larger tradition correspond to Dij alone 13 times; to Ult alone, 5 times; to Dij plus Ult 3 times; to Dij, Ult and Sta together 4 times, and to Dij plus Sta, once. Dij has a total of 29/39 or 21/26 cases, Ult a total of 18/39 or 12/26 cases, and Sta five cases. TRE 2, which was not taken into account in the above calculations due to its lacunæ, never has a special neume corresponding to a *gutturalis* just in the St. Gall tradition; its eleven cases (in the 51 pieces examined) correspond to the larger tradition and coincide with at least one of the four main manuscripts seven times (with Ult once, with Dij thrice, with Dij and Ult twice, with Dij, Ult and Sta once). Note that Clu does not present a single case of a special neume where other MSS have a *gutturalis*; this should be enough to prevent us from applying the name *virga strata* to the special clivis in Clu<sup>26</sup> and to discredit Froger's unwarranted claim that this clivis "is, in reality" the *virga strata*<sup>27</sup>.

Dij represents the gutturalis as being composed of a sharpened mi-note followed by a fa ( $E^+F$  or equivalent); since in third-mode pieces Dij tends to raise the H reciting tone to C (compare, for instance, the Dij readings of pieces 11, 36 and 67 in Hansen's edition to those of Benevento, Bibl. Cap. 40) its evidence relative to the gutturalis may be reinterpreted to suggest, in some melodic contexts, a mi-note followed by a flattened fa ( $E-F^-$ ). This is exactly the kind of correction made to the Dij pitch notation by the copyist of the Dij neumes in the gradual *Tibi Domine* ( $EF E^+F$ , corresponding to two pedes, was replaced by  $EF^- EF^-$ )<sup>28</sup>. Nothing prevents us from supposing that the location of the microtone could vary depending on whether mi or fa was given structural prominence. The microtonal character of the gutturalis allows us to explain why it apparently has two incompatible melodic meanings: unison and semitonal pes<sup>29</sup>. The double meaning is just the result of a diatonization process which displaced either upwards or downwards the microtonal element of the neume.

Dij tends to be more faithful to the larger notational tradition than to the St. Gall tradition, while Ult tends to be half-faithful to both. This is not surprising, as Ult has its notational roots in the Germanic East. As a matter of fact, the shape of the special microtonal clivis in Ult (not in Sta) is almost identical with the St. Gall gutturalis; the relative consistency of its usage in the gutturalis locations strongly suggests that Ult kept the old neume, graphically confused with the microtonal descending inflection. This is clearly the case in TRE 2, a source closely related to Ult: the gutturalis-shape can stand for both an ascending and a descending microtonal

inflection<sup>30</sup>. On the contrary, a relationship between the special clivis in Sta and the gutturalis is likely to be accidental or, if we suppose that its model behaved like Ult, just a residual survival.

In the following table we can find the modal distribution, in our sample of both the gutturalis and the salicus.

Mode	GUT	[GUT]	SAL	[SAL]	GUT+SAL
II	3	6	-	-	3
III	14	3	12	-	26
IV	3	4	9	-	12
VII	1	1	-	1	1
VIII	5	1	4	-	9

1.2 The *salicus* occurs 25 times (26 in the sources of the St. Gall family). Only twice (or thrice in St. Gall) is the melic context not semitonal in the diastematic sources; these exceptional cases are given by a single manuscript (Ult or Sta, none of which gives the correct neume) and can therefore be considered accidental. The bulk of the occurrences (23) corresponds to a EEF, AAB or HHC situation in most diastematic sources (with or without repetition of the initial note). These cases are always given by Dij, sometimes together with another manuscript (Clu appears once, Ult and Sta once, Sta three times). Dij is, however, the only source that can unambiguously represent an ascending microtonal inflection; the coincidence with other MSS. is either accidental or (when Ult and Sta are involved) residual.

If we now turn to the pieces from our list published in the *Graduale Triplex* and the *Offertoriale Triplex*, we find a total of 36 semitonal situations, including two that have not been recognized as



such by the editors<sup>31</sup> and one case where Chartres, contrary to Laon and St. Gall, has a *podatus*<sup>32</sup>. Dij fails to recognize two of these situations. Thus, out of 34 *mi-fa* situations, Dij represents 23 (two-thirds) as a "sharpened *mi*" to *fa* movement ( $E^+-E^+-F$  or equivalent). This is especially significant, as the semitonal interval seems to be the characteristic location of the *salicus*. In fact, this location is its common denominator in the notations of St. Gall, Laon, Brittany and Nonantola<sup>33</sup>. As far as I could determine on the basis of MSS. Düsseldorf D.1 and Paris lat. 17305, Paleofrank notation uses the *salicus* exclusively in the semitonal space. The association with the semitonal interval is also implied by the name given to the neume in the *Tabula prolixior* edited by Huglo: *virga semitonis*<sup>34</sup>. In a non-semitonal context, the neumatic sources tend to disagree about the use of the *salicus*. All considered, it is probable that the semitonal location is the primitive one, as Gastoué proposed. Taking the Dijon Tonary as a clue, then, the *oriscus* is typically used in the *salicus* as a reminder of a microtone between the preceding note and the upper note of the ascending movement signified by the neume; the same could be said of the *oriscus* as used in the *gutturalis* or by itself.

It is just possible, however, that the Dijon Tonary reinterprets the microtonal character of the *salicus* in view of the initial unison implied by its neumatic representation in French sources. Contrary to French practice, most early sources present the *oriscus* in the *salicus* higher than the preceding element and lower than the following one<sup>35</sup>. It is also easy to get the impression that the *mi*-note of the *salicus* is stable in those diastematic sources which do not tend in general to raise the *mi* notes to *fa* (see points of variance 155 and

163). This may suggest that the mi (or, at least, the first mi) was originally not sharpened; the principle that the last note of the salicus has greater importance<sup>36</sup> also suggests that in these cases it was a plain fa. This might justify Gastoué's hypothesis, later subscribed by Apel and Hughes: that the oriscus in the salicus indicates a passing microtone between mi and fa. The oriscus could therefore have worked, in both the gutturalis and the salicus (or alone), as a reminder of a microtonal interval between the preceding note and itself, a formulation which has the virtue of simplicity.

The stability of the mi note is not certain, however: on the one hand, a couple of passages discussed by Hughes<sup>37</sup> and our points of variance nrs. 126, 152, 207, 209 and 211 mirror deep disagreement among medieval sources concerning the diastematic reading of the salicus, often irrespective of regional tendencies; on the other hand, the presence of the mi note may be a consequence of the fact that a sharpened mi could not normally be written. The evidence is, in short, ambiguous; and regional divergences in the microtonal performance of the salicus may have been brought about by the different ways individual soloists interpreted it, a situation which is likely to have occurred already in Carolingian times. The Dijon Tonary's testimony and Gastoué's hypothesis could therefore represent legitimate alternatives in the interpretation of the primitive salicus.

There are indications that the salicus was used outside its original location very early in the development of neumatic notation. It is not rare that a salicus shared by St. Gall, Laon 239 and/or Chartres 47 encompasses an interval larger than a semitone<sup>38</sup>. Some

cases of substitution of a salicus for a quilisma, presented by Walter Wiesli<sup>39</sup>, of equivalence between salicus and tractulus + epiphonus<sup>40</sup> and a striking case of divergence between Paleofrank neumes and the reading found in St. Gall /Laon /Chartres<sup>41</sup> suggest that when the salicus encompasses an interval larger than the semitone, its middle element may have signaled a special kind of performance, like a portamento. The meaning of a neume could have been easily transferred through analogy from the intervallic to the performative aspect, or vice-versa, as happened in the transition from early Byzantine neumes to the diastematic "round" notation<sup>42</sup>. It is also possible that two different signs converged in the middle element of the salicus, as suggested by the Laon notation. Certainly more research is needed on the different uses accorded to this neume<sup>43</sup>.

So far, we have based our discussion on evidence taken from sources containing chant repertory. It is also important to take into account a relatively late testimony concerning its performance: the *Tractatus de musica* of Hieronymus de Moravia (c. 1280)<sup>44</sup>. The Dominican theorist tells us that, if an upward step-wise sequence of notes converge into a still (a rhythmic pause), the penultimate interval, whether it is a tone or a semitone, is made smaller: thus, after a D, the ascent E F G would be sung E<sup>+</sup> F G; after an E, the ascent F G A would become F# G A; and after a G, the ascent A H C would be performed A# H C<sup>45</sup>. The salicus, whose initial pitches aim at the upper, longer note, immediately comes to mind, as if a middle oriscus was present, affecting the preceding interval. One can therefore suspect that in the thirteenth century the tonal nuances formerly

associated with the salicus had, to some extent, survived under the form of contextual rules of thumb.

In the light of Hieronymus's rules, it is possible to speculate that the salicus in the early manuscript tradition may have been taken to imply: when associated with a minor second (E F), an enharmonic *pyknon* (E E<sup>+</sup> F); when associated with a minor third (D E F or E F G), either a chromatic (D<sup>#</sup> E F) or a soft diatonic *pyknon* (E<sup>+</sup> F G); when associated with a major third (F G A), a minor third with "displaced" half-step (F<sup>#</sup> G A); when associated with a fourth or a fifth, a vocal portamento.

1.3. The *pressus* and the *pressus resupinus* occur respectively twelve and eight times. Dij alone contributes 13 occurrences, Ult alone only one. Dij and Clu are found together three times (one of them in an Offertory verse), while Ult and Sta concur only once, as do Dij/ Sta and Dij/ Ult. The two cases supported by Dij together with Ult or Sta, and the only coincidence between Dij and Clu in an Offertory verse, occur in pieces assigned to the third, fourth and eighth modes. In the St. Gall sources there are four supplementary cases of *pressus*. From these, there is only one supported by the four MSS. together; the others are presented by Clu alone, Ult alone and Ult plus Sta.

The cases reported represent only a small portion of the total occurrences of the *pressus* in the pieces surveyed: in the tract *Desiderium* alone, the *pressus* is found nine times. The evidence thus put together does not suggest any relation between microtonal

nuance and the pressus neume itself. Point of variance 161, however, poses problems of interpretation, indicating that more research is needed on this matter<sup>46</sup>. Provisionally, we may conclude that in the pressus the wavery element marks, from the point of view of discrete pitches, just a repetition of the preceding note; its role is possibly that of signaling a special kind of performance. The wavery element used as initial element of the pes quassus may also have had a similar role<sup>47</sup>.

We are thus led to suspect that monosonic wavery notational shapes came to represent different musical phenomena. The meaning associated with the wavery element in the pressus may have been derived through analogy; the wavery element itself may have originally been a different sign later assimilated by the oriscus proper —the presence of two forms, one of them only used in the pressus, among the Paleofrank neumes in Düsseldorf, Landes- und Stadtbibliothek, D. 1 suggest that this may have been the case<sup>48</sup> (at St. Gall, as Dom Mocquereau did not fail to notice, the two forms remain quite distinct)<sup>49</sup>.

## 2. The role of the quilisma

The quilisma, whose Greek etymology evokes the action of rolling, is spoken of by Aurelian of Réomé, the anonymous author of the small treatise *Quid est cantus?*, Guido d'Arezzo, Aribio, the Monk of Augoulême and Engelbert of Admont as invoking a *vox tremula*<sup>50</sup>. This trembling voice is presented as a kind of ornament by Fabius Fulgentius; his expression *ornare quilismata* is glossed *quarta pars*

*toni* in Rome, Biblioteca Apostolica Vaticana, MS Reginensis 1567, from the early twelfth century<sup>51</sup>. This gloss is perfectly understandable in the more usual context for a quilisma: the filling of a semitone. The Paleofrank form of the quilisma — Paleofrank neumes are the only ones whose shapes can be taken, in general, as descriptive abstractions<sup>52</sup> — suggests on the quilismatic note an ascending movement towards the middle of the above interval and a slight undulation there, leading to the upper note. It can therefore be thought that a semitonal quilisma would call for a shake or some kind of inflection between the *mi* and the upper approximate quarter-tone before arriving at *fa*. This provisional hypothesis accords well with the presence of the quilisma before other microtonal neumes in melodic situations in which the quilisma may provide a contextual rationale for such inflections. It also accords with the alternative name of the quilisma, *vinnola*, which originally refers to a mellifluous, insinuating voice quality rather than applying to the curly visual aspect which the neume often took<sup>53</sup>. This name is found in Aurelian of Réôme's *Musica disciplina*, implicitly associated with the quilisma-neume<sup>54</sup>; its meaning is elucidated by Remigius of Auxerre, who has it correspond to an up-and-down movement<sup>55</sup>, and by the *Musicae artis disciplina*, where it is defined as a soft ornamental inflection of the voice<sup>56</sup>. It is also referred to, as equivalent to the quilisma-name, by the Monk of Angoulême<sup>57</sup>. A slight up-and-down movement of the voice finally leading upwards, being analogous to interrogative movements of the voice, also justifies the possibly independent adoption of the Carolingian

question mark by early notators as a visual reminder of the quilisma<sup>58</sup>.

The quilismatic inflection of the voice must have been light, in view of the gradual disappearance of the quilismatic note<sup>59</sup>; if the upper limit of the inflection was probably only slightly higher than the main quilismatic note, its lower limit may have been lower, given that, as seen above, in the Lotharingian area a quilismatic note filling a minor third A-C was sometimes diastematically resolved as an A instead of B natural (or C). A relatively low limit for the downward inflection is also compatible with the French descending quilisma<sup>60</sup>. Thus, we may not be far from the reality if we imagine a typical quilismatic note E, between D and F or F and D, quickly performed as a light undulation going approximately from E to E<sup>+</sup> and to E or D# before reaching its higher or lower goal (F or D). The practical execution of the quilisma is anyway likely to have varied somewhat from place to place<sup>61</sup>.

In our sample of microtonal locations, the coincidence with an archetypal **quilisma** or **quilisma prepunctis** can be disregarded as accidental; together, these neumes occur only 14 times and correspond each time to a single source (Ult once and Sta 13 times). These cases are due to the tendency, especially noticeable in Sta, to add a descending microtonal inflection to a *fa*-note, namely the arrival-note of a quilisma; the phenomenon represents therefore a departure from tradition.

It is more interesting to investigate how a quilisma might justify a microtonal inflection in other neumes. The first 50 of the 90 pieces in this sample (the introits and the graduals) were examined

in order to determine how many quilismata there are, and in what context they occur. Their identification required the agreement between at least two of the adiastematic sources collated (those transcribed in the *Graduale Triplex* and Cha); thus, among the introits there are six quilismata in St. Gall (followed by the Vatican edition) that are not corroborated by either Laon or Cha, and were therefore left out of the counting. The results are as follows: 153 quilismata, 107 of which in semitonal context. In these 107 situations, we can find a clivis preceded by (or in composition with) a quilisma and followed by a structural, repeated fa-note (reciting tone) only 6 times. In five out of these six cases, the clivis is identified as microtonal by three or four of our main sources, and in the remaining case (piece nr. 38), by the two Burgundian MSS plus TRE 2.

We can therefore formulate hypothetically a general rule: whenever, in semitonal context, a clivis follows a quilisma and is followed by a structural fa-note, the lower note of the clivis is sharpened. When the cantors apply this rule loosely, a number of cases may arise which conform only approximately to the strict contextual requirements. This rule may also lie behind the tendency to sharpen the middle note of a fa-mi-fa porrectus preceded by a quilisma (see porrectus).

### 3. Clivis and Torculus

3. 1. Clivis: among the 292 cases reported, there are 7 where the clivis is immediately followed by an oriscus, and 4 more where it is horizontally related to a following gutturalis: locations 59, 188, 202, 206, 239, 240, 307, 446, 591, 600, 631. In four of these



locations (188, 202, 206, 600) three or four manuscripts coincide; in another two (446, 591) only Dij and Clu have microtonal indications, but since we have to do here with offertory verses, these sources represent 100% of the sample; in the remaining 5 cases we have no more than one or two manuscripts suggesting a special inflection.

A <sup>qui</sup>CLV situation occurs 39 times, 12 of them in offertory verses; in 15 cases the microtonal indication is given by three or four MSS. (13 cases, if the testimony of TRE 2 is discounted), and in 6 more (in offertory verses) by two MSS, giving a total of 21 probable microtonal inflections out of 39 possible ones (54%). A <sup>(qui)</sup>CLV situation occurs 13 times; Dij alone accounts for 9 cases (of which eight occur in the tract *Deus, Deus meus*), and both Ult and Sta have one each; there are only two probable cases: one in which Dij, Ult and Sta coincide, the other in an offertory verse where Dij and Clu coincide.

Thus we have 63 cases (21.6% of the total) that might be justified by their notational context; 29 of them (10%), considering the agreement among the MSS, probably mirror a widespread oral tradition. It is clear then that context alone does not explain the vast majority of the microtonal indications involving a clivis. The fact that the MSS. tend to coincide in these indications proves that the latter stem from a relatively unified early tradition. The cases appear in the MSS. as follows (in the following, the Trier Gradual is not taken into account):

Dij alone, 49 cases (21 of them in offertory verses); Ult alone, 19; Sta alone, 11; Clu alone, 17 (10 of them in offertory verses).

Dij and Clu, 45 cases (32 of them in offertory verses); Ult and Sta, 19.

Dij and Ult, 12 cases; Dij and Sta, 5; Ult and Clu, 10; Sta and Clu, 5.

Dij, Ult and Sta, 12 cases; Dij, Ult and Clu, 24 (2 of them in offertory verses); Dij, Sta and Clu, 6; Ult, Sta and Clu, 14.

Dij, Ult, Sta and Clu, 44 cases.

The sources behave in different ways. Dij has a total of 197 cases, 135 of which (68.5%) coincide with Ult or Sta, with Clu in the offertory verses, or with at least two out of the three remaining MSS. Without offertory verses, Dij has 142 cases, 101 of which (71.1%) coincide at least with Ult or Sta, and at most with the three remaining MSS. The results for the other codices are:

Ult: 154 (116 [75.3%]); 152 (114 [75.0%])

Sta: 116 (86 [74.1%])

Clu: 165 (135 [81.8%]); 121 (101 [83.5%])

It turns out that Clu is the most reliable source, and Dij the least reliable, concerning the microtonal clivis. Reliability is here a function of the percentage of microtonal indications confirmed by different, clearly independent MSS; coincidence across geographical and liturgical boundaries is interpreted as mirroring the primitive, Carolingian state of affairs.

The modal distribution of the locations is shown in the following table.

<i>i</i>	<i>ii</i>	<i>iii</i>	<i>iv</i>	<i>v</i>	<i>vi</i>	<i>vii</i>	<i>viii</i>
Modes	One MS.	Dij+Clu (excl. Off. V.) or Ult+Sta	Dij or Clu + Ult or Sta	Dij+Clu (Off. V.)	3 or 4 MSS.	Sub- totals (cols. <i>iv-vi</i> )	Totals
I	2	1	1	3	5	9	12
II	29	8	9	4	11	24	61
III	21	9	11	6	34	51	81
IV	12	4	6	1	12	19	35
V	3	1	1	2	5	8	12
VII	9	2	0	2	5	7	18
VIII	20	6	5	14	28	47	73
Totals	96	31	33	32	100	165	292

**3.2. Torculus and torculus resupinus:** There are in this sample 62 cases of microtonal torculus. Dij alone has 7 (3 of them in offertory verses), Ult alone 5, Sta alone 5, Clu alone 3 (one of them in an offertory verses). Dij and Clu account for 9 cases, of which 7 occur in offertory verses; Ult and Sta, 4; Dij and Ult, 2; Sta and Clu, 1. Dij, Ult and Sta share one single case; Dij, Ult and Clu, 4; Dij, Sta and Clu, 1; Ult, Sta and Clu, 3; the four MSS. together, 16.

Dij has a total of 41 cases, Ult 35, Sta 32 and Clu 38.

Dom Froger claimed that the special torculus in Clu is but a version of the extended torculus in St. Gall (composed of three long notes)<sup>62</sup>. In the 38 places where Clu, in this sample, has a special torculus, the St. Gall sources transcribed in the *Graduale Triplex* present an extended torculus only once; in the 62 locations examined, it appears but four times (locations 153, 167, 505 and 662). This should be enough to convince us that the extended torculus in St. Gall has nothing to do with the special neumes that we are studying here.

The torculus resupinus appears eleven times. Dij alone has two cases; Sta alone, other two; Ult and Sta, three; Dij and Sta, one; Dij, Ult, Sta and Clu, three cases (the same melodic formula, found in two Communions).

The modal distribution of the special torculus and torculus resupinus is as follows:

<i>i</i>	<i>ii</i>	<i>iii</i>	<i>iv</i>	<i>v</i>	<i>vi</i>	<i>vii</i>	<i>viii</i>
Modes	One MS.	Dij+Clu (excl. Off. V.) or Ult+Sta	Dij or Clu + Ult or Sta	Dij +Clu (Off. V.)	3 or 4 MSS.	Sub- totals (cols. iv-vi)	Totals
I	2	0	0	0	0	0	2
II	0	1	0	0	2	2	3
III	5 + 3	2	1 + 1	0	7 + 2	11	21
IV	6	1	1	1	9 + 1	12	19
V	0	1	0	1	1	2	3
VII	1 + 1	1 + 1	1	0	0	1	5
VIII	6	0 + 2	0	5	7	12	20
Totals	20 + 4	6 + 3	3 + 1	7	26 + 3	40	73

Dij has a total of 47 cases, 38 of which (80.9%) coincide with Ult or Sta, with Clu in the offertory verses, or with at least two out of the three remaining MSS. Without offertory verses, Dij has 36 cases, 31 of which (86.1%) coincide at least with Ult or Sta, and at most with the three remaining MSS. The results for the other codices are:

Ult: 41 (29 [70.7%]);

Sta: 41 (27 [65.9%])

Clu: 41 (38 [92.7%]); 33 (31 [93.9%])

It turns out that Clu is the most reliable source, and Sta the least reliable, concerning the microtonal torculus and torculus resupinus.

3.3. If the results for the clivis and the torculus (simple or resupinus) are combined, the overall reliability of each source, i. e. the relative weight of coincidence with at least a liturgically independent manuscript from a different geographical area, can be approximately measured:

MSS.	Totals	Coinci dences w/. indep. source	%	MSS.	Totals (excl. Off. V.)	Coinci dences w/. indep. source	%
Dij	244	173	70.9	Dij	178	132	74.2
Ult	195	145	74.4	Ult	193	143	74.1
Sta	157	113	72.0	Sta	157	113	72.0
Clu	206	173	84.0	Clu	154	132	85.7

The conclusion is that Clu is, by about 10-11%, more reliable than the other sources; Dij, Ult and Sta appear to be more or less equivalent. These results are not significantly changed if the testimony of the Trier Gradual is taken into account: Dij and Clu are added one case of coincidence with an independent source, which slightly reinforces Cluny's lead.

The modal distribution of the cases of clivis and torculus probably microtonal in their origin can be seen in the following table:

Modes	Number of cases	%
<i>I</i>	9	4.4
<i>II</i>	26	12.7
<b>III</b>	<b>62</b>	<b>30.2</b>
<i>IV</i>	31	15.1
<i>V</i>	10	4.9
<i>VII</i>	8	3.9
<b>VIII</b>	<b>59</b>	<b>28.8</b>
Total	205	

The pieces assigned to modes III or VIII account together for 59% of the cases; modes II and IV contribute with approximately 28% of the sample; the remaining three modes are barely represented.

Comparison with the modal distribution of the clivis and torculus ensemble before the coincidences between MSS are taken into account may be instructive (modes III and VIII are clearly privileged, in contrast to modes II and VII):

Modes	Clivis + Torculus	%	% of widespread cases	Difference
<i>I</i>	14	3.8	4.4	+ 0.6
<i>II</i>	64	17.5	12.7	- 4.8
<i>III</i>	102	28	30.2	+ 2.2
<i>IV</i>	54	14.8	15.1	+ 0.3
<i>V</i>	15	4.1	4.9	+ 0.8
<i>VII</i>	23	6.3	3.9	- 2.4
<i>VIII</i>	93	25.5	28.8	+ 3.3
Total	365			

#### 4. Punctum and related neumes

4.1 There are 44 cases which correspond to a **punctum** in the earliest MSS; 35 of them allow a contextual justification. The remaining 9 correspond to no more than one source each: Dij four times, Ult twice, Clu twice, Sta once. Those that allow for context-determination are given by Dij alone 28 times, Dij plus Ult twice, Dij, Ult and Sta once, Dij, Ult, Sta and Clu once, Ult and Sta once, Ult alone twice. Since Dij is the only manuscript capable of signifying a punctum sung on a microtone, it is not surprising that 32 of these 35 cases have to do with it. The other MSS are not always oblivious to this phenomenon: they manage sometimes to represent a microtonal punctum by uniting it with a repetition of the preceding upper note, thus forming a special clivis: this is exactly what happens in the two cases where three or four MSS. agree, curiously the only cases where the punctum is preceded by an isolated oriscus. In one case (location 507) the punctum is the initial note of a clivis prepunctis.

4.2. The **pes conpunctis** occurs twice, in Dij (locations 78, 367); the microtonal interval appears either between the first two or the last two puncta. The **pes subpunctis** is found in 26 cases, 25 of them in Dij alone, the remaining in Clu. Five of these cases correspond to the resupinus variety. In 23 cases the microtonal interval appears between the two puncta; the most common solmization contours are fa-sol-fa-mi (10 occurrences) and mi-sol-fa-mi (5 occurrences) with the final mi sharpened. The sharpened mi-note always leads to a fa. The locations are found in pieces assigned to the second, fourth and eighth modes (7 cases each), third mode (4 cases) and seventh mode (one case). Among the PSP cases, only five

(all with final microtonal interval) might be justified by the context. Although Dij is the only MS. which can represent a final microtonal interval without sacrifice of the neumatic shape, it would have been possible in the other MSS. to decompose the neume into pes plus clivis in order to signal a special inflection. Clu did it only once, but the location (632) was well chosen, since the penultimate, fa-note is long, thus allowing a notational repercussion. The fact that neither Clu nor the North-Eastern MSS. adopted the same notational procedure in other cases where the penultimate note of the neume is similarly long (locations 133, 356, 467, 485, 496, 630, 652, 673) singles out the editor of Dij as unique, either because he was more particular about notating such inflections or because the latter amounted to a local mannerism.

5. Virga: 33 cases. Dij has 7, Ult alone 12, Sta alone 9, Ult and Sta together 3, and Clu the remaining pair. The Clu cases are accidental; only one of the Dij cases (a microtonal pes for a virga in piece 22) belongs to this category, since all the remaining have some contextual justification. The 9 cases in Sta alone are accidental and mostly arbitrary (a preceding oriscus or quilisma might explain only three of them). The same tendency to transform a fa-virga into a microtonal neume found in Sta is also independently present in Ult; 7 of its 12 isolated cases and one of the cases that it shares with Sta illustrate this tendency. A second case in which Sta and Ult coincide may be due to the influence of the following quilisma.

Six cases remain, three of them in Ult alone, two in both Ult and TRE 2, and the sixth in both Sta and Ult; these are the most



interesting of all. They occur at the end of the introit psalmody for the 4th mode (always on the recitation tone A) in the terminal formula AF-GA-G-E<sup>63</sup>. The porrectus-like microtonal inflection affects the penultimate note, G. This is not to be expected, since all the other cases studied here occur within a semitone in the diatonic scale. Is this an error? The consistency of its occurrence in Ult and the fact that TRE 2 or Sta coincide with Ult three times suggests the opposite.

The evidence makes harmonic sense, however, if late Greek musical theory is taken into account. In the E diatonic mode, the note A probably served as a tonal center. The lowering of G by (roughly) a quarter-tone produces a descending tetrachord from A to E with the following tone-ratios between the notes:  $5/4$ ,  $3/4$ ,  $1/2$ . This is roughly equivalent to Ptolemy's 'tense' species of the chromatic genre, the only chromatic variety in use in North Africa in the second century; the intervals are exactly what Aristoxenus had in mind when he describes the 'soft' diatonic genre. This coincidence lends more weight to Ptolemy's contention about the practical use of this tetrachordal division<sup>64</sup>.

The 4th mode in Gregorian chant, derived from the reciting tone E, is clearly a Mediterranean mode. The combination of an A used as tonal center with a final E seems to go back to the fourth century or even before<sup>65</sup>. The generator tone or *corde-mère mi*, from which the 4th mode is supposed to derive<sup>66</sup>, is the only one common to the Byzantine, Armenian, Syrian, Old Roman, Gregorian and Ambrosian liturgical traditions<sup>67</sup>, and is also encountered, in a developed form (with A as tonal center), in Hispanic chant<sup>68</sup>. This E-based kind of psalmody could already have been known to the

Jewish people in the first centuries of our era<sup>69</sup>. But since the direct heirs of the original apostolic community, the Nazarene Christians, were marginalized and eventually disappeared in the fourth century<sup>70</sup>, it is probable that the transmission and development of Christian psalmody suffered a strong Roman and Hellenistic influence<sup>71</sup>. Archaic psalmody could have been kept in basic or slightly developed forms and at the same time more developed varieties could have been introduced, as it were, from the outside. The combination of E-final with A-tonal center may have been modeled on the Greek E mode. It would not be difficult then for it to have adopted, in precise contexts, an inflection recalling the only tetrachordal "chromaticism" that had survived until Ptolemy's time.

**6. Porrectus.** Often, in the diastematic manuscript tradition, we encounter variants of the type DHC versus DCC, in places where the oldest neumatic sources have a porrectus. The normal meaning and graphic shape of the porrectus apparently support the DHC alternative. Yet, according to Eugène Cardine<sup>72</sup>, the porrectus is compatible with the unison of the last two notes. He presents three "proofs". The first is the use of the porrectus in DIJ 1. The porrectus-unison correspondence is however exceptional, and can be interpreted as divergence between the neume-scribe and the letter-scribe. The second is the apparent equivalence between two connected clivis and the group clivis+pressus minor. But the unison in the pressus is a problem itself. The third is the apparent equivalence between porrectus and the group clivis+strophæ. This last group was however used in MS Bamberg, Staatl. Bibl. lit. 6 in semitonal contexts

where there is no unison<sup>73</sup>. Thus, even if we accept that in the eleventh century the porrectus was sometimes ambiguous, this ambiguity can not be shown to have been a primitive feature of the neume. There are, furthermore, reasons that account for the emergence of this ambiguity in the diastematic tradition: the instability of microtonal phenomena, as in our point of variance nr. 138, and the laws of vocal economy, as presented in Chapter 4.

In the present sample we count 29 cases where at least one of the MSS compared indicates a microtonal nuance in a porrectus. Dij alone has 6 cases; so does Sta alone. Ult appears alone only once. Dij and Ult share two cases, Dij and Sta three, Dij, Ult and Sta four, Ult and Sta seven. Sta totals 20 cases, Dij 15, Ult 14. The modal distribution is as follows:

Modes	Cases reported by 1 MS.	Cases reported by 2 or 3 MSS.
II	8	1
III	4	8
IV	1	4
VIII	0	3

The porrectus is preceded by a quilisma in eleven cases, of which five are reported by two MSS. (Dij + Sta twice, Ult + Sta three times).

## 7. Pes and related neumes

7.1. The pes accounts for 32 cases, of which 14 appear as gutturalis cases in the St. Gall tradition. Dij has alone 13 cases (7 [GUT]), Ult 7 (6 [GUT]), Sta 7, Clu one; Dij and Sta share two cases, Dij

and Ult another ([GUT]), Ult and Sta two. On the whole, Dij presents 16 cases (8 [GUT]), Ult 10 (7 [GUT]), Sta 11 and Clu 1. Only in 5 cases out of 32 do two MSS. coincide (locations 260, 262, 293, 344, 347); three of these cases (260, 262, 347) occur in the same melodic formula and can be thus construed as a single microtonal situation identified by Dij, Ult and Sta together. The two remaining cases, signaled by Dij and either Ult or Sta, may have had a widespread oral tradition behind them. The same can be said, although with less certainty, of the cases singled out by Dij alone.

7.2. The *pes liquescens* occurs only once, in Ult. The *pes prepunctis* also occurs in a single instance, in Ult; it corresponds to two puncta and a gutturalis in St. Gall (location 137). There are only three cases of a *pes subpunctis* in which the microtonal interval occurs in the *pes*: locations 246, 299 and 609, given by Dij.

## 8. Scandicus and scandicus subpunctis

**Scandicus**: one case of doubtful identification (location 166) given by Ult alone. **Scandicus subpunctis**: 8 cases, always and only in Dij. The last, sharpened *mi*-note always leads to a *fa*-note. Three times the context (preceding or following microtonal clivis) provides a rationale for the occurrence. The neume occurs in five second-mode pieces; the three remaining are conventionally assigned to the third, fourth and eighth modes.

9. **Climacus** and **Climacus resupinus**: 28 cases. Three of them (all the cases of *climacus resupinus*, in fact) are given by Ult alone; Dij alone has 24 cases; Dij and Clu together have but one, in an

offertory verse (location 488). In the latter case, both MSS. repeat the central note of the climacus, which in Laon and Chartres is composed of three long notes; since the copyist of Clu is aware of rhythmic nuances, he must have understood the final note of the first clivis and the initial note of the second (special) clivis as being short. This suggests that he could have signaled a microtonal nuance also in locations 210, 222, 394 and 484 (climacus with long penultimate, fa-note) but, unlike the editor of Dij, he did not, either because he was not punctilious enough or because he did not acknowledge the very existence of the nuance at those points.

#### 10. Other neumes

**Bivirga:** 13 locations. Dij substitutes a microtonal inflection for a bivirga in two locations, Sta in nine, Ult in one, Ult and Sta together in another. These cases are obvious deviations from the universal tradition.

**Strophicus:** one case is given by Sta alone, the remaining by Ult alone. In both instances the sources depart from the universal tradition.

**Cephalicus and Epiphonus:** 9 and 8 cases, respectively. Dij alone has four cases of cephalicus and seven of epiphonus; Ult, four of cephalicus and one of epiphonus; Dij and Sta share the remaining case of cephalicus. The context might explain two of the epiphonus cases.

**Trigon:** 2 cases (locations 193 [Dij and Ult together] and 534 [Sta alone]), both probably accidental: the last, lower note is sharpened due to the attraction of the following fa-note.

Although the present survey does not provide direct evidence for the hypothesis of a non-diatonic interval occurring between the first and second notes of the trigon<sup>74</sup>, it does not contradict it, for we remain totally dependent on the Dijon Tonary for direct indications about ascending microtonal intervals. Dijon interprets this interval as an unison. Eugene Cardine advanced three arguments in favor of the initial unison as corresponding to the primitive meaning of the neume<sup>75</sup>. I find his arguments inconclusive, however. Cardine proves that the H which precedes the trigon in the formula found in the tract *De profundis* is lower than the trigon's first note (but since this is compatible with a microtonal interval between this note and the next one, it does not prove the unison hypothesis). He also proves that Einsiedeln 121 and St. Gall 339, contrary to St. Gall 359 and Bamberg lit. 6, are consistent in always using the trigon, never strophici, to write a formula found in the third mode graduals (but since there could be in this particular some instability in the melodic tradition in the tenth and eleventh centuries, it does not follow that the initial notes of the trigon are equivalent to a bistropha). Finally, Cardine convincingly shows that the formula in the offertory *Lætentur* is modified to fit the text (but since it is arbitrary to assume that the melodic meaning of the trigon is maintained when it is replaced by a liquescent bistropha, their equivalence is not proven). In favor of the non-diatonic hypothesis, we have the instability of the initial interval of the trigon in the diastematic manuscripts (which have either unison or semitone when the second note is F or C), an instability which is partially mirrored in the Vatican edition of the *Graduale*<sup>76</sup> and which suggests either a

microtonal nuance (when the second note of the trigon is F or C as in point of variance 59) or a chromatic one (when it falls on another degree, as seen in point of variance 2). This evidence is however inconclusive in itself: it may be interpreted as a sign of melodic decadence (although the fact that it tends to occur in the trigon remains puzzling) as long as a paleographical argument in favor of a non-diatonic interval is lacking.

There are, however, two paleographical arguments which can be advanced: the shape of the trigon in the Paleofrank notation (Düsseldorf D.1) and the connection with the oriscus. Since Paleofrank notation is iconic, i. e., attempts to represent melodic contour in homologous terms<sup>77</sup> (contrary to the gestural type of conjunct notation, which does not go beyond mere analogy), it is significant that the first note of the trigon is lower than the second and higher than the third. The connection with the oriscus probably stems from an early attempt to elucidate the tonal implications of certain passages or even of the trigon sign itself. The case of the eleventh century MS Perugia, Bibl. Cap. 31, which twice, in the offertory *Gloria et honore*, makes the second note of the trigon correspond to an oriscus in the other sources<sup>78</sup>, may perhaps be exceptional; but we should not ignore the fact that in the contemporary Moissac troper (Paris, B. N. nouv. acq. lat. 1871) the normal way to write the trigon is: punctum, oriscus, punctum<sup>79</sup>. If the above conclusions about the original meaning of the oriscus are correct, then the initial interval of the trigon is likely to have originally had a non-diatonic quality, as has been assumed by many scholars.

### 6.3 OVERALL MODAL DISTRIBUTION

The kind of comparison between modal categories which is capable of taking into account more of the information presented here corresponds to the special neumes that each and every one of the four manuscripts collated can use: the clivis and the torculus, which together account for more than half of the sample (365 in 689 cases). If the difference between the given locations and the widespread cases found for the clivis and the torculus is taken as indicative, it is possible, on the basis of the modal distribution of the given microtonal neumes, to find an hypothetical distribution for universal microtonal nuances:

Modes	Given % (sample as a whole)	% difference (between given and widespread clivis + torculus)	Extrapolation (widespread % for sample as a whole)
I	3.2	+ 0.6	3.8
II	17.7	- 4.8	12.9
III	30.6	+ 2.2	32.8
IV	15.6	- 0.3	15.3
V	5.5	+ 0.8	6.3
VII	4.8	- 2.4	2.4
VIII	22.7	+ 3.3	26

The hypothetical results arrived at will have to be considered against the background of important percentual differences between the modal distribution of Dij neumes in our sample and that of the total number of neumes in Dij, as presented by J. Gmelch. We may suppose that these differences represent approximately the situation in the other sources and that the larger tradition relates to our



sample, as our cases in Dij relate to the total number of cases in the same manuscript. This is, at least, a possibility that we cannot rule out as a matter of principle. Thus, the overall reality may possibly have been close to the final percentages presented next.

Modes	% Dij total	% Dij sample	% Sample extrapol.	% Dij difference	% Final extrapol.
I	10.2	2.8	3.8	+ 7.4	11.2
II	11.9	17.9	12.9	- 6	6.9
III	23.8	33.5	<b>32.8</b>	- 9.7	<b>23.1</b>
IV	18.4	16.2	<b>15.3</b>	+ 2.2	<b>17.5</b>
V	6.9	3.7	6.3	+ 3.2	9.5
VI	2.6	0	0	+ 2.6	2.6
VII	10	3.1	2.4	+ 6.9	9.3
VIII	16.2	22.8	<b>26</b>	- 6.6	<b>19.4</b>

In the sample extrapolation, the second mode has a percentage which is not far behind that of the fourth; in the final extrapolation, it is the next-to-lower percentage. The first, fifth, sixth and seventh modes are given, in the final extrapolation, a more prominent role than they had been credited before.

More important than the differences in the results are their unchanging tendencies. In both the percentages of widespread clivis and torculus and in the above extrapolations, the third, fourth and eighth modes are the ones with higher relative percentages (at least 15%). The third always comes first (within the boundaries of 23 to 33%), closely followed by the eighth (between 19 to 29%), the fourth coming next (between 15 and 17.5%). The Deuterus always accounts for at least 40% of the cases. The authentic and plagal Protus together represent more than 15%. The addition of Protus, Deuterus and plagal

Tetrardus accounts for more than two-thirds of the inflections. These general tendencies relative to modal distribution are likely then to represent the overall reality of enharmonic inflection in the early Gregorian Gradual.

The significance of a modal distribution which privileges the Deuterus (authentic and plagal) and the Tetrardus plagal modes is made clear when we take into account the evidence adduced by Kenneth Levy, Peter Jeffery and Rosemary Dubowchik for the existence in the East of an archaic modal area which includes precisely the features characteristic of these modes, a modal area which has furthermore been linked to the early liturgy at Jerusalem<sup>80</sup>. The microtonal phenomenon may therefore be seen as one more symptom of the Eastern Mediterranean matrix of Gregorian chant.

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<sup>1</sup>J. Gmelch, *Die Viertelstonstufen*, 55. According to J. Froger ("Les prétendus quarts de ton", 174), the total number of special signs in the Dijon Tonary is not 1228 (Gmelch's count) but "environ 1222". For our purposes, this disagreement in counting is irrelevant.

<sup>2</sup>In the absence of a critical edition of the Roman Gradual, the results arrived at should be considered provisional.

<sup>3</sup>F. Raillard, *Mémoire explicatif*, Tableau hors-texte.

<sup>4</sup>*Le Rythme du chant dit grégorien* (1898), 113 ff., cit. by W. Apel, *Gregorian Chant*, 112.

<sup>5</sup>This is, at least, what can be gauged on the basis of the transcriptions reproduced in Bruno Stäblein, "Thèses égalistes et mensuralistes", *Encyclopédie des musiques sacrées*, ed. Jacques Porte, II, Paris: Éd. Labergerie, 1969, 80-98. I was not able to consult the writings of Antoine Dechevrens, namely his *Études de science musicale*, I-III. Paris, 1898.

<sup>6</sup>A. Gastoué, *Les origines*, 157, 174.

<sup>7</sup>Dom André Mocquereau, *Le nombre musical grégorien ou rythmique grégorienne. Théorie et pratique*, Rome/Tournai: Desclée et Cie, 1908, 151, 371-78.

<sup>8</sup>P. Wagner, *Einführung*, II, 139-43.

<sup>9</sup>Cf. P. Ulveling, *Essai historique*, 260.

<sup>10</sup>D. Hiley, *Western Plainchant*, 360.

<sup>11</sup>W. Apel, *Gregorian Chant*, 111-12.

<sup>12</sup>R. John Blackley, with Barbara Katherine Jones, "Chant of Holy Week in Proportional Rhythm", notes to CD by Schola Antiqua, *Music for Holy Week* (Decca/L'Oiseau-Lyre, 417 324-2), 1987, 4-10 [9].

<sup>13</sup>Eugène Cardine, *Gregorian Semiology*, Solesmes: Abbaye Saint-Pierre, 1982, 155-62.

<sup>14</sup>A. Turco, *Il canto gregoriano*, I, 218.

<sup>15</sup>Guido Milanese, "Osservazione sull'oriscus culminante", *Studi Gregoriani*, II (1986), 57-103; id., "Semiologia e comparazione tra repertori: su un particolare impiego dell'oriscus", *Musica e liturgia nella cultura mediterranea*, ed. Piero G. Arcangeli, Firenze: Olschki, 1988, 253-63.

<sup>16</sup>G. Milanese, "Osservazione", 88.

<sup>17</sup>Alberto Turco, "Semiologia e notazione estetico-modale del pes quassus", *Studi gregoriani* V (1989), 71-102 [74].

<sup>18</sup>G. Delorme, "La question rythmique grégorienne", *La Musique d'Église*, XIII (1934), 9-12, 21-23, 36-39, 45-49, 58-63, XIV (1935), 7-9, 14-17, 28-32 [XIII, 62-63; XIV, 7-9]. At point of variance nr. 155, LAN seems to use the oriscus to signal a chromatic inflexion. The same can be suspected of MUR 3 and GAL 1 respectively in the introit *In medio Ecclesiae* (*imp. Levit*) and in the gradual *Viderunt* (*iustitiam*).

<sup>19</sup>This hypothesis is compatible the abbreviation procedure found in some Italian manuscripts whereby the oriscus stands not only for itself, but also for the preceding note: cf. Mauro C. Turrone Monti, "Aspetti anomali della grafia ante-oriscus nel cod. Roma, Bibl. Angelica 123", *Studi Gregoriani* VIII (1992), 65-91.

<sup>20</sup>This etymology was proposed by Bannister. According to other scholars, the word would derive from "limit" or even "ornament" (cf. Michel Huglo, "Les noms des neumes et leur origine", *Études grégoriennes*, I (1954), 54-67 [64], and Jean-Baptiste Thibaut, *Origine byzantine de la notation neumatique de l'église latine*, Paris: Picard, 1907, repr. Hildesheim: Georg Olms, 1975, 75-76).

<sup>21</sup>On Paleofrank notation, see Jacques Handschin, "Eine alte Neumenschrift", *Acta musicologica* XXII (1950), 69-97; id., "Zu 'Eine alte Neumenschrift'" (*Acta XXII* 71 ff.), *Acta musicologica* XXV (1953), 87-88; Ewald Jammers, "Die paläofrankische Neumenschrift", *Scriptorium*, VII (1953), 235-59; Jacques Hourlier and Michel Huglo, "Notation paléofranque", *Études grégoriennes*, II (1957), 212-19; B. Stäblein, *Schriftbild*, 28-29, 106-7; S. Corbin, *Die Neumen*, 3.75-81; Kenneth Levy, "On the Origin of Neumes", *Early Music History*, 7 (1987), 59-90. The lack of uniformity in the shape of the oriscus suggests that it is not meant to portray a melodic contour, as is the case with the remaining Paleofrank neumes. I adopt here Kenneth Levy's innovative view of the Paleofrank notation, expounded in his seminal article "On the Origin of Neumes". Levy has demonstrated that this notation is broadly based on graphic similarity to sonic contour, and not, as the remaining western notations, on gestural reinterpretations of sonic contour. Levy follows Handschin in seeing no reason to distinguish different chronological layers in this notation and speculate that the oriscus was absent from an hypothetical first layer, as stated or implied by Jammers, Stäblein and Corbin. Corbin's position is echoed by Leo Treitler, "Reading and Singing: On the Genesis of Occidental Music-Writing", *Early Music History*, 4 (1984), 135-208 [150-51] and Dom Daniel Saulnier, "La mise par écrit du répertoire romano-franc", *Requiescentes modos musicos: Mélanges offerts à Dom Jean Claire*, Solesmes: Abbaye Saint-Pierre, 1995, 237-47 [246].

<sup>22</sup>Eugène Cardine, "La corde récitative du 3e ton psalmodique dans l'antique tradition sangallienne", *Études Grégoriennes*, vol. I (1954), 47-52; id., *Gregorian Semiology*, Silos, 1982, 145-54.

<sup>23</sup>Dom André Mocquereau's claim that the middle note should be emphasized and lengthened (*Le Nombre Musical*, 390-91) was rejected by Wagner, Gastoué, Apel and Cardine, and is no longer Solesmes's view. P. Wagner, *Einführung*, II, 144-48, interprets the oriscus in the salicus as two quick notes, the second being lower than the first. A. Gastoué, *Les origines*, 157-58, 175, proposes that the salicus was originally restricted to the semitonal space and that its middle note divides this tonal space into two microtones. W. Apel, *Gregorian Chant*, 110, states that "this middle pitch was a «forbidden» chromatic tone, for instance, in d-f#-g, or even a quarter-tone, as in e-e<sup>+</sup>-f". E. Cardine thinks that the middle oriscus "indicates a kind of melodic tension towards the following [upper] note" (*Gregorian Semiology*, 164); R. Ponchelet, "Le salicus", 58, agrees with Cardine, but adds that the middle oriscus "indique vraisemblablement une particularité [minime] dans l'exécution de la note". J. Caldwell believes that it indicates a kind of grace or *glissando* (*La música medieval*, 26).

<sup>24</sup>E. Cardine, *Gregorian Semiology*, 124-43. This is not, however, the view of Dom Mocquereau, who calls the wavery element in the pressus an *apostropha-pressus* and distinguishes it from the *apostropha-oriscus*, notwithstanding the fact that in the Laon notation the signs are identical (*Le nombre musical*, I, 146-53, 300-32, 388-89). See W. Apel, *Gregorian Chant*, 103, 112-13, for a summary of the controversy surrounding this neume.

<sup>25</sup>The exceptions are: Introit *Veni et ostende*, on *Veni*, and Gradual *Qui sedes*, on *deducis*; among our MSS., only ULT has a special neume in these locations.

<sup>26</sup>J. Gmelch, *Die Viertelstonstufen*, 72 (note).

<sup>27</sup>J. Froger, "Les prétendus quarts de ton", 151.

<sup>28</sup>F. E. Hansen, *H 159 Montpellier*, 247, 582.

<sup>29</sup>E. Cardine, *Gregorian Semiology*, 145-54.

<sup>30</sup>This can be seen, for instance, in the offertory *Factus est Dominus*: TRE 2 has gutturalis-shapes in *firmamentum meum et* (corresponding to *virga+oriscus*) and also in *liber ator* (mid.), corresponding to a pressus whose upper note is a *fa*. In the gradual *Tenuisti manum* (piece nr. 48), the special shape stands for a clivis in *voluntate tua*, while in the offertory *Domine, fac mecum* (nr. 64), it stands for a gutturalis three times.

<sup>31</sup>In the Introit *Iudica me* (G.T., 120, on *gripe*) and the Offertory *Eripe me... Domine* (O.T., 52, on *iustitia*).

<sup>32</sup>At the beginning of the Introit *Dum clamarem*.

<sup>33</sup>R. Ponchelet, "Le salicus", 58; Elena Lazzarini, "Oriscus, derivati ed impieghi nel codice nonantolano Bologna, Bibl. Univ. 2679 (Non)", *Studi gregoriani*, VIII (1992), 93-105 [94, 100]. A. Gastoué, *Les origines*, 175, remarks that "le salicus, sur d'autres degrés que le demi-ton primordial [...], se rencontre surtout dans les mss. sangalliens, dont il est une particularité des plus curieuses". In fact, this liberal use of the salicus occurs also in other early representatives of the Eastern chant tradition, like the late ninth-century fragment, Laon 266 (Peter Jeffery, "An Early Cantatorium Fragment Related to Ms. Laon 239", *Scriptorium*, XXXVI (1982), 245-52 [249]), and the gradual of Echternach. Mocquereau's *dictum* that the MSS. from St. Gallen are "les maîtres et les modèles" in the use of the salicus (*Le nombre musical*, 389) set the direction of research for nearly a century, but completely lacks historical support.

<sup>34</sup>M. Huglo, "Les noms des neumes", 60-61.

<sup>35</sup>Cf. Enrico Marriotti Bannister, *Monumenti Vaticani di Paleografia Musicale Latina*, 2 vols., Lipsia: Ottone Harrassowitz, 1913: Table relative to the scandicus, E1-19.

<sup>36</sup>E. Cardine, *Gregorian Semiology*, 163-83.

<sup>37</sup>D. Hughes, "Evidence", 389-93.

<sup>38</sup>E.g. locations 1 and 19 (major third) and the intonation formula D-F-G, found in the introit *Lux fulgebit* (*Lux*); the graduals *Ad Dominum* (*exaudivit*) and *Qui operatus est* (*Petro*); the offertories *Benedic anima mea* (*noli*), *Dextera Domini* (*Dextera*), *Expectans* (*exaudivit*) and *Recordare* (*da*); and the communions *Exsulta filia* (*filia*), *Revelabitur* (*gloria*) and *Tu puer* (*Tu*).

<sup>39</sup>Walter Wiesli, *Das Quilisma im Codex 359 der Stiftsbibliothek St. Gallen, erhellt durch das Zeugnis der Codices: Einsiedeln 121, Bamberg lit. 6, Laon 239 und Chartres 47. Eine paläographisch-semiologische Studie*, Bethlehem Immensee: Verlag Missionshaus, 1966, Anhang 78: Beispiel 4, and 81: nrs. 379, 380, 381 (encompassing a major third), 696 and 697 (encompassing a minor third).

<sup>40</sup>Intonation of the introits *Domine ne longe* and *Dominus illuminatio*, using the formula D-F-G referred to above.

<sup>41</sup>Gradual *Viderunt omnes*, melisma over *Dominus*: St. Gall 359, Laon 239 and Chartres 47 have an isolated long note followed by a salicus (four notes), while the Paleofrank notation in Paris, B. N. lat. 17305, echoed by the Echternach Gradual, has just a scandicus (three notes).

<sup>42</sup>Egon Wellesz, *A History of Byzantine Music and Hymnography*, 2nd ed., Oxford: Clarendon Press, 1961, 284-87.

<sup>43</sup>A notational tradition may use the salicus in different ways, and may also have particular ways to use it. A case in point is Chartres 47 (cf. W. Wiesli, *Das Quilisma*, 308-15, Anhang 81). I was unable to consult S. Lavery's unpublished thesis, "The Special Oriscus in Codex 47 of the Library of Chartres as Used in the Pes Quassus, the Salicus and the Quilisma-Pes Neumes", presented at the Pontificio Istituto di Musica Sacra (Rome) in 1981. The article by Carmelo Picone, "Il 'salicus' con lettere espressive nel codice di Laon 239", *Études grégoriennes*, XVI (1977), 7-143, is only concerned with the rhythmic aspect.

<sup>44</sup>Simon M. Cserba (ed.), *Hieronymus de Moravia O. P., Tractatus de musica*, Regensburg, 1935 [Freiburg. Stud. z. Musikwissensch., 2].

<sup>45</sup>S. M. Cserba, *Hieronymus*, 226: "*Quarta regula est: Continuatio sonorum si post semitonium fit vel tonus et conveniens fit super quietem, penultima proportio minuitur, sive fuerit semitonium vel tonus: [a, h, c, d]*". I am indebted to Marcel Pérès for having called my attention to this passage.

<sup>46</sup>It may be worth observing that in the offertory *Factus est Dominus*, there are three pressus over *liber ator*, starting respectively on A, G and F. TRE 2 translates the two initial pressus as two normal clivis, while the last is written as a microtonal neume. The notator seems to have viewed the meaning of the pressus differently, depending on the melodic context.

<sup>47</sup>The initial note of the pes quassus has no durational implications: cf. Jan W. A. Vollaerts, *Rhythmic Proportions in Early Medieval Ecclesiastical Chant*, 2nd ed., Leiden: E. J. Brill, 1960, 75-82, and E. Cardine, *Gregorian Semiology*, 184-98. A. Turco, "Semiologia e notazione", arrives at the conclusion that the pes quassus in St. Gall "è stato scelto dal notatore per significare il passaggio da una corda strutturale ad un'altra" [101]. This view, also found in A. Turco, *Il canto gregoriano*, I, 239-45, is contradicted by the coincidence of the initial note of the pes quassus with a pien-tone (B flat) in the formula A-C-A B-C, found mainly in fourth and sixth mode offertories: *Confitebor Domino* (*nimis*), *Gloriabuntur* (*Domine*), *Intonuit* (*apparuerunt*), *In virtute* (*salutare*) and *Lauda anima* (*Dominum*). The modal logic behind the use of a neume should not moreover be confused with its meaning as a sign: for

instance, a mordent sign may be used to emphasize some tonal degrees, but what it tells to the performer has nothing to do with tonal analysis. A. Turco also points out that in the Cantica and Tractus repertoires the pes quassus tends to be associated with accented syllables; but E. Cardine, *Gregorian Semiology*, 190-91, discusses a formula in the third-mode Graduals where the pes quassus always coincides with the last syllable of a word. In short, the meaning of the pes quassus is quite obscure. If the pes quassus is to be understood, the first thing to do is to acknowledge that this neume, while not restricted to St. Gall, is especially characteristic of its notational school. CHA 1 and LAN, for instance, are very parsimonious in its use. The pes quassus is absent from Paleofrank notation (even in locations where CHA 1 also has it, like the introit *Dum medium silentium, Domin<sup>u</sup>e*, the offertory *Confortamini, veniet*; and the graduals *Hodie scietis, Manass<sup>e</sup>*, and *Speciosus forma*, end of *meum*). In those places where CHA 1, LAN and the St. Gall MSS. agree, the initial element of the pes quassus often coincides with a *f*<sub>a</sub>-note. It may be also significant that (a) in the gradual *Beata gens*, over *sib<sup>i</sup>*, CHA 1, in contrast with GAL 1 and LAN, avoids using the pes quassus when the preceding note is not just a step below *f*<sub>a</sub>; (b) a third-mode formula discussed by Vollaerts, starting DH CDC, is written in St. Gall with a pes quassus-like torculus CDC, but if the formula is transposed up a major second, the normal torculus is used (J. Vollaerts, *Rhythmic Proportions*, 78). The pes quassus may therefore have had some melodic significance. The St. Gall notators use it however in a variety of ways, which clearly transcend this hypothetical origin. All that can be said is that the initial note of the pes quassus seems to have had a sforzando-like quality (cf. M. Huglo, "Les noms des neumes", 64) notwithstanding its being oriented towards the next note (E. Cardine, *Gregorian Semiology*, 184-98). This meaning of the neume possibly represents a late, regional development; may be future research will be able to clarify the whole issue.

<sup>48</sup>MS. D.1 was examined in microfilm. General description and facsimiles in Ewald Jammers, *Die Essener Neumenhandschriften der Landes- und Stadtbibliothek Düsseldorf*, Ratingen: Aloys Henn Verlag, 1952. See also E. Jammers, *Tafeln*, 130-33.

<sup>49</sup>A. Mocquereau, *Le nombre*, 389.

<sup>50</sup>A. Mocquereau, *Le nombre*, 402-3; M. Huglo, "Les noms des neumes", 65-66; W. Wiesli, *Das Quilisma*, 2-3.

<sup>51</sup>Michel Huglo, review of Finn Egeland Hansen's *The Grammar of Gregorian Tonality*, *Journal of the American Musicological Society*, 37 (1984), 416-24 [419 n.].

<sup>52</sup>K. Levy, "On the Origin of Neumes", 66-79.

<sup>53</sup>Michel Huglo, "Exercitia vocum", *Laborare fratres in unum. Festschrift László Dobszay zum 60. Geburtstag*, ed. D. Hiley and Janka Szendrei, Hildesheim, 1995, 117-23 [118].

<sup>54</sup>L. Treitler, "Reading and Singing", 157-58, 203; Kenneth Levy, *Gregorian Chant and the Carolingians* (in preparation), chapter 8: "Aurelian's Use of Neumes".

<sup>55</sup>P. M. Smith, "Remigius autissiodorensis", 328-29.

<sup>56</sup>M. Gerbert, *Scriptores*, I, 265-84 [284]: "Vinnola vox est mollis atque flexibilis, & vinnola dicta a vinno, id est, cincinno molliter flexo".

<sup>57</sup>Cit. in A. Mocquereau, *Le nombre*, 403.

<sup>58</sup>For early shapes of the question mark (starting c. 775), see Jean Vezin, "Le point d'interrogation, un élément de datation et de localisation des manuscrits. L'exemple de Saint-Denis au IX<sup>e</sup> siècle", *Scriptorium*, 34 (1980), 181-96 [181]; L.

Treitler, "Reading and Singing", 140, 198-200 (largely based on E. A. Lowe, *Codices latini antiquiores*, 11 vols., Oxford, 1934-1971); Bernhard Bischoff, *Latin Palæography — Antiquity and the Middle Ages*, Cambridge/New York: Cambridge University Press, 1990, 170. The possibility that the quilisma, as found in many notations, may have been modelled on a punctuation sign — an hypothesis held by most musicologists (e.g. E. Cardine, *Gregorian Semiology*, 199; L. Treitler, "Reading and Singing", 201) — is suggested by the striking graphic similarity of question mark and quilisma as written in different regions. The Paleofrank quilisma is not, however, related to the question mark. Even if we accept that the later quilisma-neume derived from a punctuation mark, a similar explanation can be applied to most other neumatic shapes only with difficulty.

<sup>59</sup>This lightness is also implied by the findings of the semiological school: cf. W. Wiesli, *Das Quilisma*, 329; E. Cardine, *Gregorian Semiology*, 205; A. Turco, *Il canto gregoriano*, I, 250-51.

<sup>60</sup>F. E. Hansen, *H 159 Montpellier*, 50\*-51\*; id., "Editorial Problems", 166-68.

<sup>61</sup>For an overview of the theories about the distinctive character of the quilisma, see W. Wiesli, *Das Quilisma*, 3-11. The trill/mordent hypothesis has been the most widespread. Since the publication of Wiesli's book no new hypotheses have been proposed: F. E. Hansen, "Editorial problems", and J. Caldwell, *Medieval Music*, subscribe to Mocquereau's glissando theory. D. Hiley, *Western Plainchant*, takes a neutral stand, but adds: "The idea that the quilisma was primarily of rhythmic significance (Wiesli, Cardine 1968, etc.) does not seem sufficient to explain the special shape of the sign" [358].

<sup>62</sup>J. Froger, "Les prétendus quarts de ton", 151.

<sup>63</sup>In the Vatican edition, GF-GA-G-E. Only once does Utr rise the final note to a F, but in this same case Sta has the correct note, E. It is also here that Utr presents a simple, clivis-like microtonal neume, contrary to Sta, which has a porrectus-like neume, as Utr does in the five remaining cases. TRE 2 has the same formula also in the psalmody for the introit *Iudica Domine* (piece nr. 14) on *persequi mur*. The microtonal termination on G-E may occur in a non-psalmodic context as well: in the offertory *Improperium expectavit* (TRE 2, p. 68), at *beneplaciti Deus* (end), the special neume (on G, preceding an E), corresponds to an oriscus in CHA 1 and MUR 3.

<sup>64</sup>F. A. Gevaert, *Histoire et théorie*, 278-336; R. P. Winnington-Ingram, *Mode in Ancient Greek Music*, 78; id., "Greece (I)"; M. L. West, *Ancient Greek Musik*, 169-70.

<sup>65</sup>Kenneth Levy, "The Byzantine Sanctus and its Modal Tradition in East and West", *Annales musicologiques*, vol. 6 (1958-63), 7-67.

<sup>66</sup>Dom Jean Claire, "L'évolution modale dans les répertoires liturgiques occidentaux: évolution modale des antiennes provenant de la corde-mère mi", *Revue Grégorienne* (1963/n°s 4-5), 77-102.

<sup>67</sup>Dom Jean Claire, "Points de contact entre répertoires juifs et chrétiens «Vieux-Roman et Grégorien»", *Proceedings of the World Congress on Jewish Music* (Jerusalem, 1978), ed. Judith Cohen, Tel-Aviv, 1982, 107-14.

<sup>68</sup>K. Levy, "The Byzantine Sanctus"; Hanoah Avenary, *Studies in the Hebrew, Syrian and Greek Liturgical Recitative*, Tel-Aviv: Israel Music Institute, 1963 [example 4].

<sup>69</sup>Manuel Pedro Ferreira, "Música judaica e música cristã: uma herança recíproca", *O Judaísmo na Cultura Ocidental*, ed. Anabela Mendes, Lisboa: Gulbenkian, 1993, 101-108.

<sup>70</sup>Ray A. Pritz, *Nazarene Jewish Christianity - From the End of the New Testament Period Until Its Disappearance in the Fourth Century*, Jerusalem-Leiden, 1988.

<sup>71</sup>E. Foley, *Foundations of Christian Music*, 68, 83-84: [During the first century a.d.] "the traditional patterns of Jewish chants — already under the influence of Hellenism — were increasingly influenced by the musical traditions of Gentile believers"; [in the second and third centuries] "a new alliance with Greco-Roman culture [...] shows itself in the development of [Christian] metrical hymnody and poetic texts".

<sup>72</sup>E. Cardine, *Gregorian Semiology*, 42-45.

<sup>73</sup>Giampiero Buzelli, "Stropha d'apposizione semitonale", *Studi gregoriani*, 4 (1988), 33-64.

<sup>74</sup>This hypothesis is shared by A. Gastoué, *Les origines*, 157-59, 174; P. Wagner, *Einführung*, II, 152-55; W. Apel, *Gregorian Chant*, 115-16; J. Caldwell, *Medieval Music*, 58; D. Hughes, "Evidence", 397.

<sup>75</sup>E. Cardine, *Gregorian Semiology*, 108-11.

<sup>76</sup>Claude Thompson, "La traduction mélodique du trigon dans les pièces authentiques du Graduale Romanum", *Études grégoriennes*, X (1969), 29-86. The author uses a small number of diastematic manuscripts, and does not convincingly explain their frequent hesitation between an unison and a semitone.

<sup>77</sup>*The Oxford Universal Dictionary Illustrated*, 3rd ed., Oxford: Clarendon Press, 1969, I, 950, defines "Iconic" as "of the nature of a portrait". The adjective was introduced in musicological literature by Leo Treitler, "The Early History of Music Writing in the West", *Journal of the American Musicological Society*, 35 (1982), 237-79 [239-40, 253-62], but is not used here in reference to Treitler's article.

<sup>78</sup>M. Monti, "Aspetti anomali", 85.

<sup>79</sup>Marie-Noël Colette, "La notation du demi-ton dans le manuscrit Paris, B. N. Lat. 1139 et dans quelques manuscrits du Sud de la France", *La Tradizione dei tropi liturgici*, 297-311 [307].

<sup>80</sup>K. Levy, "The Byzantine Sanctus", 56-57; Peter Jeffery, "The Lost Chant Tradition of Early Christian Jerusalem: Some Possible Melodic Survivals in the Byzantine and Latin Chant Repertories", *Early Music History*, 11 (1992), 151-90 [160-86]; Rosemary Thoonen Dubowchik, "A Jerusalem Chant for the Holy Cross in the Byzantine, Latin and Eastern rites", *Plainsong and Medieval Music*, 5 (1996), 113-29.



## Close

St. Odo of Cluny, in his *Collationes*, expressed the opinion that in the context of Christian liturgy, musical order [*modulatio*] helps to expel diabolic desires from the human spirit. He contrasted his opinion with that of St. Jerome, who had attributed the same effect to the words pronounced by the singers and had condemned those who, in St. Odo's apt expression, "cultivate the throat and adorn the voices with sweet and even theatrical modulation". St. Odo's rebuttal of St. Jerome could not fail to be read as an encouragement to singers who excelled in vocal performance. Given that St. Odo, during his tenure at Cluny, largely shaped its identity and was its first canonized abbot, it is most probable that the aesthetical implications of St. Odo's ethical stance were not forgotten there. It might be significant that during the eleventh century, Cluny's chanting was praised by visitors; the architect of Cluny III, in designing a low choir screen, certainly counted on the aesthetical impact of the chanted liturgy.

The concept of skilled singing normally implies, for the twentieth-century listener, accurate, intelligent interpretation. For the eighteenth-century listener, it probably meant fluid, tasteful performance (implying adequate use of ornamental procedures). We can only guess what it meant for St. Odo: did skilled singing in any way imply more than was normally written — particular nuances or extempore embellishments? Could "sweet and even theatrical

modulation" as it was understood in the tenth century have left a stamp on the Cluniac repertory?

The answers I give here should be regarded as provisional. The analysis being restricted to the chants for the Proper of the Mass (the Ordinary of the Mass and the sequences having been dealt with already by David Hiley), it is obvious that much more research is needed: the Office has hardly been studied in depth, in spite of insightful and pioneering work done by Ruth Steiner. Furthermore, the written sources do not record the whole story: in using them, we are unlikely to learn much about possible peculiar performance habits at Cluny, which in fact may largely have made the difference between Cluny and other contemporary chant traditions.

Be that as it may, more can be said now than before the present research was started. It was already known that, in spite of the role played by the Duke of Aquitaine in the foundation of Cluny, the particular melodic tradition of Cluny is basically northern French. In the course of this work the kinds of small regional variants that are proper to this subtradition were identified and discussed. In the absence of other information about rhythm in northern France, it was established that Cluny has strong links with Brittany and some relation to Laon. It has also been suggested that the northern French subtradition probably developed in the ninth century —before Cluny was founded —and was consolidated through personal exchanges and/or early neumations which allowed or incorporated simple ornamental gestures common in the performance of chant in this particular geographical area. These early, slight ornamental additions may be regarded as the tip of a performative iceberg possibly implied

by St. Odo's defense of singers and later clearly condemned by some twelfth-century authors — even though some points of variance discussed here testify to the persistence of ornamental practice.

As a representative of a regional trend, and in spite of rare, minor exceptions (which could anyway be due to the loss of many manuscript sources), Cluny was not original concerning the particular shapes that the melodies exhibited in writing. We have seen that, contrary to what has often been assumed, the spread of Cluniac liturgical usages did not imply the corresponding spread of its particular melodic tradition of chant: the latter was not actively enforced in the priories and affiliated houses. The musical influence of Cluny was largely limited to those monasteries which were directly founded or repopulated by the mother abbey, and to their extensions. Cluny was, moreover, open to outside influence, especially from Aquitaine, probably through personal connections and exchanges with affiliated houses there.

Lack of musical originality extended to other domains. Composition seems to have been severely limited. In the area of musical theory Cluny was not creative either, even if some indices — the presence in the library of important theoretical works, some marginal annotations in the Cluny Gradual, and the abbey's reputation as a learning center — attest to some theoretical activity. The inscriptions of the late eleventh-century capitals of Cluny III show awareness of basic musical theory and of the related tonaries, but their significance is mostly symbolic and spiritual.

The main musical strength of Cluny was its conservatism, which was itself rooted in the abbey's liturgical traditionalism. It is true that

the Cluniac divine office was unusually prolix when measured by later standards, but Cluny did not substantially innovate; it simply kept and developed the inherited monastic tradition. The Cluniac attitude toward the Mass was more austere; it was permeated both by a desire to emphasize the proximity to the Roman papal tradition, renowned for its austerity, and by an Agobard-influenced unwillingness to add extra-biblical, newly-composed texts to the liturgy, thus barring the way to innovation. This liturgical traditionalism had naturally a musical counterpart.

The choice of Introit tones in the late eleventh-century Cluny Gradual was, from a theoretical point of view, old-fashioned. The melodies sung at Cluny also tended to keep their traditional profile: although, in contrast with most southern sources, the rise of *mi* to *fa* occurs already in the Gradual, in the stage of evolution mirrored in the diastematic Cluniac MSS it is quite limited compared with northern French and some Italian sources from the twelfth and thirteenth-centuries, not to speak of the eastern European documents. In the northern French context, Cluny looks in fact quite antiquated: few sequences were adopted, and tropes were generally not admitted; the selective adoption of slightly ornamented neumatic contours was not as important as, for instance, in St. Denis; and revisions motivated by word-tone relationship, as often occur in Laon, were practically ignored. Also, in contrast with southern monasteries like Saint-Yrieix, modal theory seems not to have been used as an editorial guide in revising problematic melodies: those few which were modified at Cluny seem to mirror Aquitanian influence.

Because Cluny's musical conservatism was not accompanied by any serious effort to legitimate it in the face of contemporary developments in music theory, it eventually failed to resist the pressure of the surrounding ecclesiastical world. The new notational technology, the Guidonian staff, undermined the already limited musical uniformity of the Cluniac congregation by forcing the repertory into a limited gamut which did away with non-diatonic intervals and irregular half-steps and exposed what could be seen as irregular modal behavior. The mother abbey having no ready solution for these problems, a confused situation inevitably ensued.

Cluny's failure to deal with problems of tonal coherence is paralleled by its notational stance. The date of the surviving chant manuscripts from Cluny suggests that its monks used neumatic notation of the French variety until relatively late, the mid-twelfth century, when the staff was already a century old. The implication is that neumatic notation served Cluny well; in fact, it provided something which the Guidonian staff could not match. St. Odo's defense of skilled vocal performance possibly encouraged a special concern with fine nuances; some of these were eventually written down. French neumes, as developed by one or more scribes at Cluny, were made to record a few rhythmic details, and, most importantly, microtonal information as well. The special *clivis* and *torculus* in the late eleventh-century Cluny Gradual are in fact the only known examples in French notation of neumes modified in order to record exceptional, non-diatonic inflections. This Gradual is not only one of the rare sources to record what could be called the enharmonic dimension of chant, but also the most reliable one, and the one which

more clearly concentrates the special inflections in pieces belonging to the archaic modal area roughly corresponding to the third, fourth and eighth modes.

At a time when everywhere else people tried to make it easier to learn the diatonic content of the chant repertory by adopting drastically innovative Guidonian methods, at Cluny the basic skills were taken for granted and all that seemed to matter was the accurate rendition of minute vocal inflections, as if style, not diatonic content, was the corner-stone of tradition and tonal nuances essential to a truly effective chant performance.

The end of the story is well known. Eventually, rationalist teachers won and traditionalist singers lost. The moral reads like a post-modern soap-opera: productivity-enhancing technology won at the expense of refinement and traditional values, and a family was torn apart in the process. (If nothing more came out of it, one could say that being able to tell a story from the incredibly mute Cluniac musical sources was exciting anyway.)

The research presented here, however, goes well beyond the limits of monastic history. The original topic forced us, as a matter of method, to confront the complex issue of enharmonic practice in the early chant tradition and the fundamental importance of melodic variants for the analysis and interpretation of a host of other problems, including patterns of transmission and melodic evolution in Gregorian chant. In trying to understand the musical fate of Cluny, we ended up establishing some characteristics of northern French performance practice, clarifying the controversial issue of microtones, re-interpreting the early meaning of some neumes and proposing a

whole new theory of melodic change. Even if some of the conclusions arrived at may not win an easy approval from all quarters, I hope that the thoroughness of the discussion and the wealth of comparative material presented in the Appendices will provide a reliable basis for further research.





**MUSIC AT CLUNY:  
THE TRADITION OF GREGORIAN CHANT FOR  
THE PROPER OF THE MASS.  
MELODIC VARIANTS AND MICROTONAL  
NUANCES.**

Volume II

$\hat{A}_1 = \cdot \cdot ,$

Ex. 1

$\hat{A}_2 = \cdot \cdot : \quad \cap = \cdot \cdot ,$

a.

b.

Ex. 2

$\hat{A}_1 \quad \hat{A}_2 \quad \hat{A}_3 \quad \hat{A}_4 \quad \cdot \cdot ;$

Ex. 3

$\hat{A}_1$

$\hat{A}_2$

LAN

$\hat{A}_3$

$\hat{A}_4$

CHA 1

$\hat{A}_5$

$\hat{A}_6$

BEN 1

$\hat{A}_7$

$\hat{A}_8$

GAL 1

$\hat{A}_9$

$\hat{A}_{10}$

CLU 1

$\hat{A}_{11}$

$\hat{A}_{12}$

-tis-

-me.

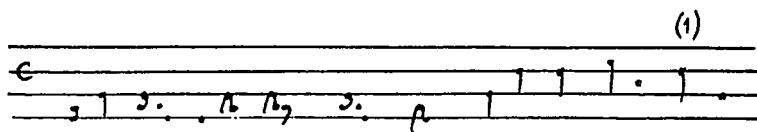
Ex. 4

Ex. 5

INTROIT TONE	INTONATION + TENOR	MEDIANT FORMULA	SECVLORVM AMEN
I	1 1 1 1 1 1	1 ... 2 1	1 2 . . . 2 . 1 2 . . 1 { . 2 . . . 2 2 2 . 2 . . . 2 2 1
II	{ . 1 1 1 1 . 2 1 1 1	2 1 1 1 .	. 1 2 1 2 2
III	. 1 1 1 1	. 1 1 . .	1 . . . 2 1 2 2 . . . 2 1 2 .
IV	2 1 1 1 1	2 1 1 1 .	1 1 2 1 2 . 1 1 2 1 2 2 2
V	. 1 1 . . . .		. . 1 . . 2 . . . 1 . . 2 2 1 .
VI	1 2 1 1 1 1	. 1 .	1 1 2 1 2 . 1 1 2 1 2 . . 2
VII	2 1 1 1 1 1	. 2 . 2 1	. . 2 . . . 2 2 1 1 2 . . . 2 . . . 2 . . 1 .
VIII	{ . 1 1 1 1 . 2 1 1 1	2 1 1 1 .	1 1 2 1 2 2 .

### Reconstruction:

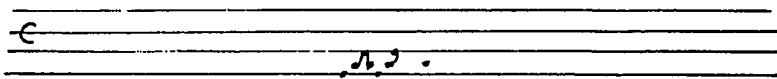
CLU 1 with  
CLU 2 + CLU 3



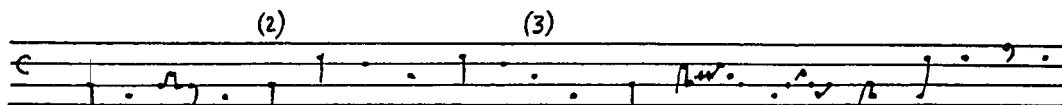
## Variants in

Paris, B.N. n.2.

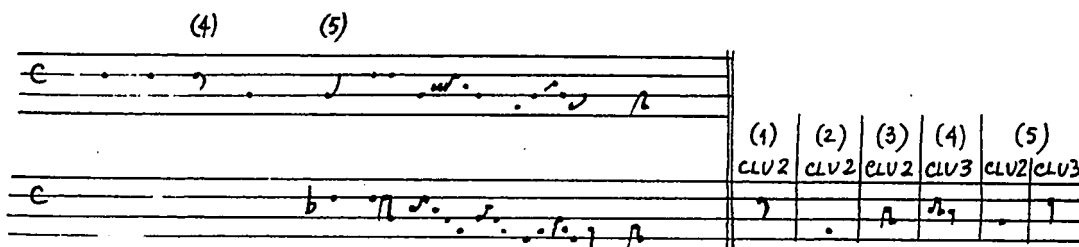
lat. 1436, p. 731



Spi-ri-tus u-bi uult spi - rat: et vo-cem e-ius au-di's,



al-le-lu-ia: et nes-cis un-de ve-ni-at, aut quo va-dat, al-le-lu-ia,



al-le-lu-ia, al-le - lu - ia.

a.

b.

c.



Mi-se-re-re mi-chi

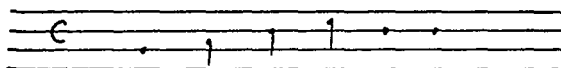
Re-mi-nis-ce-re

Sa - lus po-pu-li

Mi-se-ri-cor-di-a

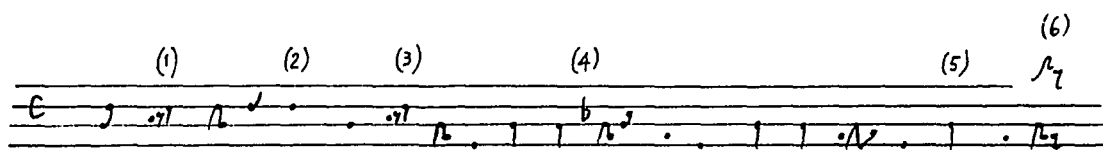
# Ex. 9

293

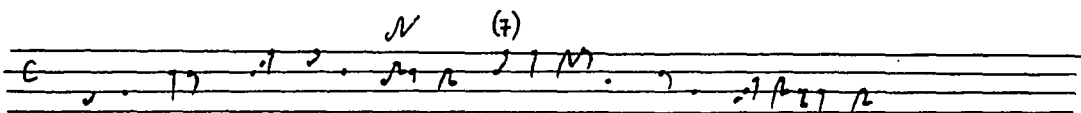


in ta-ber-na-cu-lis

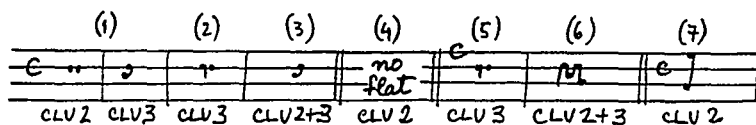
# Ex. 10



Chris-tus re-sur-gens ex mor-tu-is, iam non mo-ri-tur, al-le-lu-ia: mors il-li



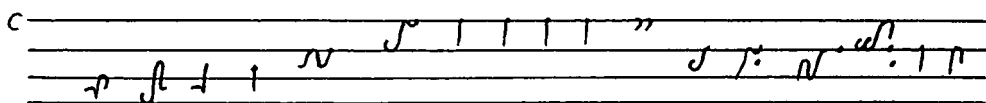
ul-tra non do-mi-na-bi-tur, al-le-lu-ia, al-le-lu-ia.



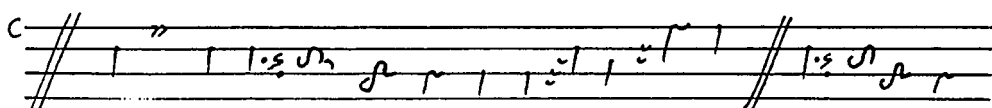
RECONSTRUCTION:  
CLV 1 with  
CLV 2 + CLV 3

a b c d e f g h i j k l m n o p  
= A B C D E F G a b b c d e f g a

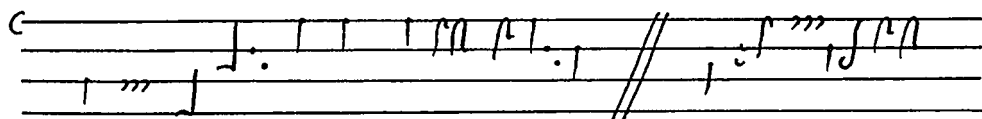
# Ex. 11

STA 1, fol. 88<sup>v</sup>

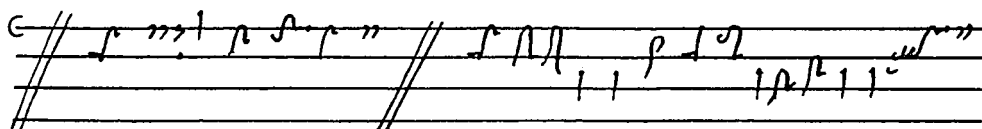
<INTR> Dom cla-ma-rem ad Do-mi-num, ex-audi-vit vo-cem me - am



ap-pro-pin-quant mi-chi: et hu-mi-li-a - vit e - ter-num

STA 1, fol. 104<sup>r</sup>

<INTR> E-go cla-ma - vi quo-ni-am et ex-audi-ver-ba



-di me Do-mine, ut o-cu-li: sub umbra a-la-rum tu-a-rum

Ex. 12

## APPENDIX 1:

### COMPARATIVE STUDY OF MELODIC VARIANTS

1. PRESENTATION
2. THE 250 POINTS OF VARIANCE
3. ADDITIONAL OBSERVATIONS

#### 1. PRESENTATION

The 250 points of variance presented here were, for the most part, chosen in different parts of the Temporale, although the Sanctorale is also represented. Pieces include introits, graduals, tracts, offertories, communions and a few alleluias. Offertory verses were avoided because an important number of manuscripts do not record them and differences among the remaining ones are sometimes substantial; a larger sample of manuscripts would be needed to allow this particular comparison.

Not all the points of variance initially found were retained for the comparison: originally there were more than 320, but only 250 were eventually examined in detail. In the following, the final selection of points of variance is presented first, with two numberings: the current consecutive number and the preliminary research number (good only for control purposes). To make this material more user-friendly, reference is made to the modern Vatican edition of each piece, whether in the *Graduale Triplex* (G. T.)

or, if not included therein, in the *Graduale Neumé* (G. N.) instead. The location of the variant is identified by the corresponding text in the *Graduale Romanum* (VAT), of which the G. T. is a study edition.

Relative pitches are signified by letters, irrespective of current written transpositions (e. g. ACD instead of DFG or vice-versa) and the octave where they occur. To avoid a cumbersome presentation, optional, additional repeated notes are not shown as such but denoted by a (') sign; occasional crasis of repeated notes is ignored. B always signifies B flat, while H signifies B natural or a B without a flat sign. An underlined B indicates that the distinction was not consistently annotated and that B flat is a provisional reading. This state of affairs is to a large extent unavoidable, for in the manuscript tradition, distinction between B flat and B natural is in most cases passed over, ambiguously indicated or unsystematically recorded<sup>1</sup>. An upper plus sign (as in A<sup>+</sup>) signifies a slightly raised pitch (conversely, F<sup>-</sup> would stand for a slightly lowered F). Liquescentia are represented by oblique strokes (as in A\ and A/, standing respectively for a cephalicus and an epiphonus). When points of variance require special commentary, this is given immediately below. Locations 34-42 and 108-112, corresponding respectively to the offertory *Jubilate Deo omnis terra* and to the communion *Passer invenit*, are however presented without extensive commentary, since their problematic nature would require a special study.

Now and then my remarks anticipate the findings about special neumes extensively dealt with in Chapter 6; I apologize for any inconvenience that this may cause. In addition, casual working habits led coverage of manuscript sources or the corresponding annotations



to vary somewhat more than would be advisable. I tried to check my readings whenever possible; the circumstances of research were so unsteady, however, and the available time so limited for the vastness of the information dealt with, that some errors are likely to have remained undetected. I hope that these shortcomings will turn out to be not so serious as to jeopardize the overall validity and utility of the comparative work.

## SPECIAL SIGNS

B	B flat
<u>B</u>	B (provisionally read as B flat) ____
H	B (natural or without flat sign)
/	ascending liquescence
\	descending liquescence
$x'$	note $x$ exceptionally repeated by a MS
$x^+$	microtonally raised pitch $x$
$x^-$	microtonally lowered pitch $x$

**MSS SIGLA** (sources in neumatic notation appear in boldface):

*Siglum / Location, Library, Call number, Provenance and Date*

- ALB** Paris, Bibl. Nat., lat 776. From St. Michel de Gaillac (near Albi); second third of the 11th century.
- AND 1** Namur, Musée diocés. 1. From Andenne, 12th-13th centuries.
- BEC** Paris, Bibl. Nat. lat 1105. From Le Bec, 1265-1272.
- BEN 1** Benevento, Arch. arcivescovile, VI.33. From Benevento, 10th-11th centuries.
- BEN 2** Benevento, Arch. arcivescovile, VI.38. From Benevento, 11th century.
- BEN 5** Benevento, Arch. arcivescovile, VI.34. From Benevento, 11th-12th centuries.
- BEN 7** Benevento, Arch. arcivescovile, VI.35. From Benevento, beginning of 12th century.
- BIS 1** Vaticano [Roma], Bibl. apost. vat. Borgia lat. 359. From Besançon, 1031-1066.
- BRC** Braga, Arquivo da Sé, livro de coro 34. From Braga, early sixteenth century.
- CAM 2** Paris, Bibl. Nat. lat. 17311. From Cambrai (?), first half of 14th century
- CAM 4** Cambrai, Bibl. Mun. 60. From Cambrai, XIth-XIIth centuries.
- CHA 1** ex-Chartres, Bibl. Municipale, 47. From Brittany, 10th century.

- CHA 3** ex-Chartres, Bibl. Municipale, 520. From Chartres, second quarter of 13th century.
- CIS 9** Paris, Bibl. Nat. lat. 17328. From a northern French Cistercian convent, third quarter of 12th century.
- CIS 13** Roma, Tre Fontane, Oelenberg 48. From Hauterive, third quarter of 12th century.
- CIS 14** Lisboa, Torre do Tombo, Lorvão 15. From Alcobaça, end of 12th century.
- CLU 1** Paris, Bibl. Nat., lat. 1087. From Cluny, late 11th century.
- CLU 2** Bruxelles, Bibl. Royale, II 3823. From a Cluniac priory in the Clermont diocese, first third of 12th century.
- CLU 3** Cambridge, Fitzwilliam Museum 369. From the Cluniac priory of Lewes, last third of 13th century.
- COM 2** Vercelli, Bibl. Capitolare 186. From Como or Balerna, 11th-12th centuries.
- CON** Porto, Bibl. Mun., MS 830. From St. Cruz de Coimbra, 14th century.
- DEN 1** Paris, Bibl. Mazarine, 384. From St. Denis, 11th century.
- DEN 2** Paris, Bibl. Nat., lat 1107. From St. Denis, second half of the 13th century.
- DEN 4** Paris, Bibl. Nat. lat. 9436. From St. Denis, mid-11th century.
- DIJ 1** Montpellier, Bibl. Univ., H. 159. From St. Bénigne, Dijon, first half of the 11th century.
- DIJ 2** Bruxelles, Bibl. Royale II 3824. From St. Bénigne, Dijon, 1228-1288.
- ELI** Private collection. From St. Éloi, Noyon, 10th century.

- EPT** Darmstadt, Hess. Landesbibl., 1946. From Echternach, c. 1000.
- FLE 1** Angers, Bibl. Municipale, 91. From St. Pierre, Angers, end of 10th century.
- FRA 4** Carmignano, S. Michele, [C]. Franciscan, third quarter of 13th century.
- FRA 5** Vaticano [Roma], Bibl. apost. vat. Reg. lat. 2049. Franciscan, c. 1255-60.
- GAL 1** St. Gallen, Stiftsbibliothek, 359. From St. Gall, c. 900.
- ITI 1** Roma, Bibl. Casanatense, 1907. From S. Salvatore del Monte Amiata (Siena), early eleventh century.
- ITI 3** Firenze, Bibl. Laurenziana, Ashburnham 61. From Tuscany, 11th-12th centuries.
- KLO 1** Graz, Universitätsbibliothek, 807. From Klosterneuburg or Passau, mid-12th century.
- LAN** Laon, Bibl. Municipale, 239. From the region of Laon, c. 930.
- LYO 1** Vaticano [Roma], Bibl. apost. vat. Barberini 559. From St. Michel, Lyon, 1173-1223.
- LYO 3** Lyon, Bibl. Mun. 513. From St. André, Lyon, 14th century.
- MET 1** Paris, B. N. lat 2546, fols. 1-2. Cistercian copy of an exemplar from Metz, c. 1110-40.
- MET 2** Metz, Bibl. Mun. 12. From Metz, 15th century.
- MIL 2** Madrid, Real Academia de la Historia, Aem. 18. From San Millan de la Cogolla, beginning of 12th century.
- MUR 3** Einsiedeln, Stiftsbibliothek, 121. From St. Gall or Einsiedeln, beginning of 11th century.

- NAR Paris, Bibl. Nat. lat. 780. From Narbonne, 11th-12th centuries.
- OTU 2 Autun, Bibl. Mun. 167 (145). From Autun, 11th-12th centuries.
- PAR 6 Paris, Bibl. Nat. lat. 15615. From Paris (Sorbonne), 13th century.
- ROG 1 Paris, Bibl. Nat. lat. 904. From Rouen, 13th century.
- ROP St. Petersburg, Pub. State Lib., O.v.I.6. From Meulan, 12th century.
- SAR 1 London, B. L., add. 12194. From Salisbury, c. 1275.
- STA 1 London, B. L., add.18031-2. From Stavelot, beginning of 13th century.
- TOU London, B. L., Harl. 4951. From Toulouse, 11th century.
- TUR 3 Paris, Bibl. Nat. lat. 9434. From St. Martin, Tours, 11th century.
- ULT Utrecht, Catharijne Convent ABM 62. From the Utrecht area, c. 1200.
- VAN 2 Verdun, Bibl. Municipale, 759. From St. Vanne, Verdun, first half of 13th century.
- YRX Paris, Bibl. Nat. lat. 903. From Saint-Yrieix, Limoges, 11th century.
- ZIG Leipzig, Univ. St. Thomas 391. From St. Thomas, Leipzig, end of 13th century.

## 2. THE 250 POINTS OF VARIANCE

## ADVENT

Off. Deus tu convertens (G. T., p. 20)

1 (1)

<u>Deus t u</u>	GAH H HDCCH	BEN 5, BRC, MIL 2, YRX
	GAH HC HDCCH	ALB
	GAC C HDCCH <sup>+</sup>	DIJ 1
	GAC C CDCCH	all the others

CHA 1, LAN and MUR 3 have a salicus for Deus. CHA 1 writes [e]q[ualiter] before the following punctum, while MUR 3 has the equivalent letter *e* between this punctum and the beginning of the next neume. Aquitaine and Benevento tend to keep the primitive reciting tone of third mode pieces, B natural, while other sources tend to raise it to C.

Grad. Qui sedes (G. T., p. 22)

2 (5)

<u>super</u>	DEFD DG	CAM 2, KLO 1
	DEFD DA	DEN 2, ULT
	EFGE EA	STA 1
	EGGE E	CLU 2, CLU 3

EGGE EA	CHA 3, CIS 9, DIJ 1, ITI 3, PAR 6, ROG 1, ROP
EGGE DA	FRA 4
EGGD DG	BEN 5
EGG'A AD	ALB, MIL 2, TOU
EGGA AE	YRX

The different responses to this passage probably relate to the need to avoid chromaticism (EF#GE, changed into EGGE/EFGE or transposed a tone below as DEFD), which would incidentally also explain the avoidance of the preceding climacus (FED) in FRA 4. In GAL 1, the hypothetical chromaticism coincides with the initial note of a trigon. The first part of the gradual might therefore illustrate the gamut proposed in the *Musica enchiriadis* (excluding the lowest and the highest tones), i. e. a melodic structure comprising the tetrachord of the *finales*, the tetrachord of the *superiores*, and that of the *excellentes* (central diatonic scale from D to D plus upper tetrachord E-F#-G-A)<sup>2</sup>.

This gradual poses problems of classification within the oktoechos system (ambiguity between protus and tetrardus before the verse<sup>3</sup>, authentic melodic content versus plagal ambitus in the tetrardus verse). It was partially transposed in YRX and suffered substantial changes in BRC. This ambiguity may possibly have provided the pretext for the Aquitanian version.

The diastematic Cluniac version (CLU 2 and CLU 3) derives from a neumatic version (CLU 1) which writes the clivis as a cephalicus; in

the corresponding oral delivery, the last, liquescent, note, must have sounded weak and was eventually lost in the transmission.

Off. Benedixisti (G. T., p. 23)

3 (6)

remisisti

iniquitatem

C C C

CHA 3, CIS 9, CLU 2,  
CLU 3, DEN 2, DIJ 1,  
FRA 4, KLO 1, NAR,  
PAR 6, ROG 1, ROP,  
STA 1, VAN 2

C C CD

CAM 2

C C HC

ITI 3

H C C

BRC, CON, MIL 2,  
TOU, YRX

H H C

ALB, BEN 5

The version in Albi and Benevento (H H C) corresponds to the neumations of MUR 3 and CHA 1; the alternative Southern French version (H C C) plausibly represents the primary stage of evolution, while the majority of the sources including CLU 2 and CLU 3 illustrate a secondary stage (C C C), retained by the Vatican edition. This stage was reached relatively early, for, besides DIJ 1, it is already found in ITI 1, CLU 1 and BIS 1 (ELI was not consulted). The variants in ITI 3 and CAM 2, which have a two-pitch ascent on iniquitatem rather than the single pitch found in the remaining



sources, evidently depend on a neumatism similar to that found in LAN, which has a quilisma at this point.

Com. Dicite (G. T., p. 23)

4 (8)

<u>et nolite</u>	D	D	DE	ALB, BEN 5, CHA 3,
				CIS 9, DIJ 1, FRA 4,
				ITI 3, KLO 1, MIL 2,
				NAR, ROG 1, STA 1,
				VAN 2, YRX
	D	DE	E	CAM 2
	C	C	CE	CLU 2, CLU 3, DEN 2,
				PAR 6, ROP, SAR 1

The Cluniac MSS here agree with the Vatican edition, which has C C C E, retaining what seems, at first sight, to be a northern French variant. There is some justification for this, since the preceding note is a D and MUR 3, by having a tractulus (instead of a virga) on et and again on nolite, suggests Cs instead of Ds. The melodic context also makes the recitation on C correspond to the *difficilior* alternative, i. e., D being the normal recitation tone, it is easy to explain why C might have been raised to D, but not the reverse.

Grad. Tollite portas (G. T., p. 25)

5 (9)

[a] [b]

<u>elevamini</u>	DAHA	A	VAN 2
	DHCA	A	CIS 9, KLO 1, ULT

DHCA	GA	CAM 2, CHA 3, DEN 2, PAR 6, ROP, STA 1
DCCA	A	ALB, BEN 5, BRC, CLU 2, CLU 3, DIJ 1, FRA 4, ITI 3, MIL 2, NAR, ROG 1, SAR 1, YRX
DCCA	HA	CON
EDDDCCA		TOU

This location may be divided, for explanatory purposes, into two: 5a (*elev<sup>a</sup>mini*) and 5b (*elevam<sup>i</sup>ini*). Although DCCA is retained by the Vatican edition, given its geographical spread (France/Italy), the DHCA version is common to the West and East-Frankish realms and is possibly implied by the relative position of the notes in LAN. It will be seen below that this pattern is part of the primitive Gregorian modal vocabulary.

Location 5b coincides with point of variance nr. 104 in Solesmes's preparatory volumes for the critical edition of the Roman Gradual<sup>4</sup>. The GA turn seems to be particular to the northern, French-speaking area, but comparison with the Solesmes survey reveals that the podatus is also common in Italian sources.

Off. Confortamini (G. T., p. 26)

6 (10a)

<u>re</u> tribuet	C E FFF	ALB, BEN 5, MIL 2
	D E FFF	CON, ITI 3, YRX

C F FFF	DIJ 1, KLO 1, ROG 1, STA 1, VAN 2
D F FFF	CHA 3, CLU 2, CLU 3, FRA 4, ROP, SAR 1
D DF FF	CAM 2, DEN 2, NAR

The version on top is very likely the original. On the one hand, C is preferred by sources from all geographical areas including all the Eastern ones and manuscripts known to be generally conservative such as ALB and BEN 5. On the other hand, E FFF is a typical Deuterus formula (see below commentary on point of variance 48). The semitonal approach is implied by the relative position of the neumes in CHA 1, but that in LAN implies that the E had probably been raised already in the tenth century; the resulting version, retained in the Vatican edition, was certainly established in Burgundy by the following century (CLU 1, DIJ 1).

Intr. Veni et ostende (G. T., p. 27)

7 (13)

<u>qui</u> s edes	A CDE	ALB, BEN 5, CLU 2, CLU 3, DIJ 1, FRA 4, ITI 3, MIL 2, ROG 1, ROP
	A CDF	CAM 2, CHA 3, CIS 9, DEN 2, KLO 1, PAR 6, STA 1, ULT, ZIG

The E is raised to F not only in Eastern sources, but also in a number of northern French manuscripts.

Grad. A summo caelo: V/. Caeli (G. T., p. 27)

8 (14)

<u>e</u> ius (end)	EG AFD	ALB, BEN 5, CHA 3, KLO 1, MIL 2, STA 1, TOU, ULT
	FG AFD	ITI 3
	EG AFED	CAM 2, CIS 9, CLU 2, CLU 3, DEN 2, DIJ 2, FRA 4, PAR 6, SAR 1

The last variant, restricted to French sources except for FRA 4, appears to be implied already in the tenth century (ELI).

Grad. Domine Deus virtutum (G. T., p. 32)

9 (15a)

<u>s a</u> lvi (end)	FEDE	ALB, BEN 5, CLU 2, CLU 3, CIS 9, FRA 4, ITI 3, MIL 2, NAR, TOU, YRX
	FEDF	CAM 2, CHA 3, DEN 2, DIJ 2, KLO 1, PARIS 6, ROP, STA 1, VAN 2

The MSS disagree about the last note. It should be remarked in passing that in this same Gradual, on *erimus*, the melisma is given complete by only a few of the sources available to us: CHA 1, CLU 1, FRA 4 and MIL 2.

Tr. Qui regis Israhel (G. N., p. 19)

10 (16)

Israhel

GA C'C DA'G

ALB, CHA 3, CLU 3,  
CON, DIJ 1, MIL 2,  
NAR, STA 1, TOU,  
VAN 2, YRX

G CC DAG

FRA 4

GA CC CAG

CIS 9, ITI 3, ROG 1,  
ROP

GA CHC DAAG

BEN 5, CAM 2, CLU 2,  
DEN 2, KLO 1, PAR 6

The transformation of CC onto CHC is late: none of the neumatic sources, including CLU 1, ITI 1 and DEN 4, imply it. Its origin may perhaps be sought in the way the second C was articulated in performance. CLU 3 here agrees with CLU 1 against CLU 2.

11 (17)

sedes super

Cherubym

H H H H C

BEN 5, MIL 2

H H H H CH

CON

H H H C C

ALB

H C C C C	TOU, YRX
C C' C C C	CAM 2, CHA 3, CLU 2,
	CLU 3, CIS 9, DIJ 1,
	FRA 4, KLO 1, NAR,
	PAR 6, ROG 1, STA 1,
	ULT, VAN 2
C C C C AC	ITI 3
C C C C CH	DEN 2, ROP

None of the diastematic manuscripts represents faithfully the original state of affairs over super (nuance signified by a gutturalis). Generally speaking, though, the upper version corresponds to the earliest neumed versions. The Cover Cherubym is authentic (CHA 1, GAL 1) but the podatus of ITI 3 may derive from a legitimate alternative, HC, suggested by the quilisma in LAN. Although there are intermediary stages, the version followed by most sources is very ancient, for it is present in ELI, and then also in EPT, ITI 1, BIS 1 and CLU 1. The French CH is already implied by DEN 4.

Off. Exsulta satis (G. T., p. 28)

12 (18)

<b>Exsulta</b> (beg.)	G G C	ALB, BEN 5, CAM 2,
		CHA 3, CIS 9, DIJ 1,
		FRA 4, ITI 3, KLO 1,
		MIL 2, NAR, STA 1

G A C

CLU 2, CLU 3, DEN 2,  
PAR 6, ROG 1, ROP,  
VAN 2

LAN and MUR 3 have a unison between the initial G and the following note. The correctness of the unison is confirmed by the universal geographical distribution of the GC version. Cluny and many French manuscripts prefer to fill the tonal space between the preceding G and C, by raising the (second) G to A, as if in the context of an ascending movement the voice was attracted to the upper note.

Off. Tollite portas (G. T., p. 40)

13 (19)

gloria <u>a</u> e (end)	recitation on B flat	ALB, CHA 3, CLU 2, CLU 3, DEN 2, DIJ 1, ROP, VAN 2
	recitation on C	BEN 5, CIS 9, FRA 4, ITI 3, KLO 1, MIL 2, NAR, SAR 1, STA 1, TOU, YRX, ZIG

The first version is the *difficilior*, and therefore is probably the authentic one. VAT follows the majority by reciting on C. CAM 2, PAR 6 and ROG 1 do not include the last part of the melisma.

Grad. Tecum principium (G. T., p. 42)

14 (20)

<u>Tecum</u>	A E	BEN 5, DIJ 1, ITI 3, KLO 1, NAR, ULT
	G D	FRA 4, FRA 5
	A D	CAM 2, CIS 9, CLU 2, CLU 3, DEN 2, PAR 6, ROG 1, STA 1, VAN 2, ZIG
	A G	ALB, CHA 3, TOU, YRX
	A F	CON, MIL 2
	A EF	ROP

The next note, on the first syllable of *principium*, is an A. The Aquitanian sources (with Chartres) tend to avoid the large leap, AEA or ADA, universally agreed and also called for by the *i[nferius]* over the second note in GAL 1.

15 (21)

princ <u>i</u> pium (beg.)	AHAG	all except
	ABAG	CAM 2, DEN 2
	HAHAG	CON
	ACAG	KLO 1, STA 1, ULT, VAN 2, ZIG
	GAGF	FRA 4, FRA 5



The version ACAG is clearly an East-Frankish variant, typical of this region in raising H to C.

16 (22)

pedum (end) FEDE

ALB, BEN 5, CHA 3,  
CLU 2, CLU 3, CIS 9,  
CON, FRA 4, ITI 3,  
MIL 2, NAR, TOU,  
YRX

FEDF

CAM 2, DEN 2, KLO 1,  
PAR 6, ROG 1, ROP,  
STA 1

As above, nrs. 7 and 9.

All. Dominus dixit (G. T., p. 43)

17 (23)

ad me: Filius H H HA

CHA 3, DIJ 2, FRA 4,  
ITI 3, ROG 1, VAN 2

H H HDC

CON

H H CA

BEN 5, TOU

H C CA

ALB, MIL 2, YRX

C C CA

CAM 2, CIS 9, DEN 2,  
KLO 1, NAR, PAR 6,  
ULT

C C HA

CLU 2, CLU 3, ROP,  
STA 1

The neumatic version in GAL 1, with *s[ursum]* over the clivis, suggests that the H H CA contour may be the primitive one. VAT has H H HA, an energy-saving version. The C C CA alternative emerges by sliding the B natural reciting tone to a modally "standard" one.

18 (24)

ego

GAGH H

ALB, BEN 5, MIL 2,  
TOU, YRX

GAGC C

CAM 2, CHA 3, CIS 9,  
CLU 2, CLU 3, CON,  
DEN 2, DIJ 2, FRA 4,  
ITI 3, KLO 1, NAR,  
PAR 6, ROG 1, ROP,  
STA 1, VAN 2

Off. Lætentur cæli (G. T., p. 44)

19 (25)

Lætentur

CDE E

ALB, BEN 5, TOU, YRX

CDF F

CAM 2, CHA 3, CIS 9,  
CLU 2, CLU 3, DEN 2,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, MIL 2, NAR,  
PAR 6, ROG 1, ROP,  
STA 1, VAN 2

DF F

CON

Grad. Benedictus qui venit (G. T., p. 45) V/. A Domino

20 (27)

Domino (end) CDE E EC

KLO 1, ROP

CDF F FC

ALB, BEN 5, CAM 2,

CHA 3, CLU 2, CLU 3,

CIS 9, DEN 2, DIJ 1,

FRA 4, ITI 3, MIL 2,

PAR 6, ROG 1, STA 1,

ULT, VAN 2, YRX

According to GAL 1, the three top notes (E or F) are long; CHA 1 and LAN, although somewhat ambiguous, do not contradict the St. Gall episemata. In the preceding melodic passage, earlier in the melisma on *Domino*, the E had appeared as the higher note, but treated as an ornamental, passing degree (DEDC, DECA, the long notes being, according to GAL 1 and LAN, the last two of each four-note group). In the first variant above, however, the E is treated as a structural note, implying that the skeleton of the whole piece is the ascending chain of thirds F-A-C-E. The large majority of the sources leave the E as an ornamental note, choosing instead to introduce the high F as a structural complement of the octave (F-A-C-F). The E requires less vocal energy, and may therefore be thought as a lowered F, but it could also represent an alternative view of tonality in this piece.

All. V/. Dominus regnavit decorem (G. T., p. 46)

21 (28)

Alleluia (end) FDEFD

ALB, BEN 5, CAM 2,  
CIS 9, CLU 2, DEN 2,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, ROG 1, SAR 1,  
STA 1, VAN 2

FDEFED

CHA 3, CLU 3, PAR 6

CDEFED

ROP

A few French (or French-derived) sources, including CLU 3, add a passing descending note.

22 (29)

induit Dominus (beg) FF

ALB, BEN 5, CAM 2,  
CLU 2, CLU 3, DIJ 1,  
ITI 3, NAR, STA 1,  
TOU, VAN 2

EF

CHA 3, CIS 9, DEN 2,  
FRA 4, KLO 1, PAR 6,  
ROG 1, ROP, SAR 1

The two preceding notes are long Fs. GAL 1 and LAN support the unison. The FF EF phenomenon makes its appearance relatively late, but survives in VAT.

23 (30)

<u>fortitudin e m</u>	DF DF FC EDC	BEN 5, DEN 2, FRA 4
	DF FD FECEDC	PAR 6
	DF DF FD EDC	ALB, CLU 2, YRX
	DF DF FD EDC DC	ITI 3
	DF CF D EDC DC	SAR 1
	DF CFE FD FDC	KLO 1
	DF CF FC FD'C	STA 1, VAN 2
	DF CF FC EDC	CAM 2, CIS 9, DIJ 1, NAR, ROG 1, ROP, TOU
	DF CF FD EDC	CLU 3
	D CF FE FDDC	CHA 3
	DF ED DHCDEFD	CON

According to the oldest MSS, the two problematic notes in the passage (the third and the sixth) were performed quickly. GAL 1 has an *i* over the first note of the second pes, suggesting that it is a C instead of a D. Most of the northern sources agree, as do two Aquitanian ones. The D is retained by VAT. Like the D as the sixth note, its appearance is due to vocal economy: the smaller the interval to sing, the easier.

Off. Deus enim (G. T., p. 46)

24 (32)

<u>Deus enim</u>	G FGF G G	BEN 5, CLU 2, CLU 3, DEN 2, KLO 1, STA 1
------------------	-----------	---

G FGF G FGF	PAR 6
G GF G G	ALB, MIL 2, TOU
G GFG G G	CAM 2
A GAG F G	CHA 3, CIS 9, FRA 4, ITI 3, ROP, VAN 2
A AG F G	DIJ 1, NAR, ROG 1, SAR 1

The version in VAT (A FAG G G) is not found among the sources consulted. MUR 3 has two *virgæ* for *enim*, with *l[evare] m[ediocriter]* over the first *virga*, which excludes the F G ending. CHA 1 and LAN also imply a G unison. The G beginning is geographically more widespread than the A, and corresponds to a more archaic recitation on G. The A is already implied by CHA 1; it makes for a more terse incipit, since the passage immediately following on *firmavit* establishes a strong A-C frame. There seems to be no reason for the appearance of the F over *enim* as in the CHA 3 and DIJ 1 kinds of variant, other than the fact that it brings forth a clearer modal context (a third degree is heard in addition to A and G). This might be only an æsthetic issue, but it may also be a functional one: if, after the intonation sung by the soloist(s), the choir sang the first presentation of the respond from *firmavit* onwards (as in VAT), the A-G-F incipit would have been much more helpful than the A-G original. In DIJ 1 (as in CHA 1, LAN and MUR 3), the choral repetition of the offertory respond after a verse starts only in *Ex tunc*, i. e. the choir would repeat only its last fourth.

Intr. Puer natus est (G. T., p. 47)

25 (35a/b)

<u>nat</u> <b>u</b> s,	H	ALB, TOU
vocab <b>b</b> itur		
	A	CHA 3
	C	all the others

This note precedes a high D and leads to a repercussed C.

26 (36)

<u>hum</u> erum	CH	ALB, BEN 5, BRC, CLU 2, CON, DIJ 1, KLO 1, MIL 2, TOU
	C"	CAM 2, CIS 9, CLU 3, DEN 2, FRA 4, ITI 3, PAR 6, ROG 1, ROP, STA 1, VAN 2
	A	CHA 3

The primitive version (BEN 1, CHA 1, LAN, MUR 3) is a long clivis CH, preceded by ED above and leading to a repercussion on C. The B natural is raised to C or disappears in ITI 1 and EPT.

27 (35c)

<u>n</u> omen	H	ALB, TOU
	A	MIL 2
	C	all the others

Note preceded and followed by reperfused Cs.

28 (37)

<u>ei</u> s	CA	KLO 1, STA 1, ULT, VAN 2, ZIG
	HA	all the others

One of several East-Frankish variants.

Grad. Viderunt, V/. Notum (G. T., p. 48)

29 (39)

<u>con</u> spectum	CD	ALB, BEN 5, BRC, KLO 1, STA 1, ULT, VAN 2
	AD	CAM 2, CHA 3, CIS 9, CLU 2, CLU 3, DEN 2, FRA 4, ITI 3, MIL 2, PAR 6, ROG 1, ROP

The movement is ascending; the preceding note is an A, and the following, a (higher) D. VAT adopts the AD variant (the second note is liquescent); LAN supports it with a large epiphonus. The CD alternative could be seen as having been produced by the "attraction" of the upper note, but seems to be implied already by the *l[evare]* on the left of the neume in MUR 3 (the *s[ursum]* in GAL 1 occupies an ambiguous position), and by the upper position of the



epiphonus relative to the preceding notes in CHA 1. Possibly the divergence goes back to the ninth century.

All. V/. Dies sanctificatus (G. T., p. 49)

30 (40)

Alleluia (end) FD

ALB, BEN 5, BRC, CON,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, MIL 2, ROG 1,  
STA 1, ZIG

FED

CHA 3, CLU 2, CLU 3,  
CIS 9, ROP, VAN 2

GFED

CAM 2, DEN 2, PAR 6,  
SAR 1

Northern France tends to add a filling note, but the Parisian tradition, followed by Cambrai and Salisbury, embellishes the passage further.

Off. Tui sunt (G. T., p. 49)

31 (42)

sedis (beg.) EF

ALB, MIL 2, TOU,  
YRX

FF

all the others

CHA 1, LAN and MUR 3 imply a unison. The EF variant, influenced by the Deuterus formula already encountered in points of variance 6 and 26, seems to be proper to Aquitaine.

## EPIPHANY

Intr. Ecce advenit (G. T., p. 56)

3 2 (64)

<u>e</u> ius (beg.)	DFFDE	ALB, BEN 5, BRC, DIJ
		1, FRA 4, ITI 3, LYO
		3, MIL 2, NAR, YRX
	DFEDE	DEN 2
	DEFDE	CAM 2, CHA 3, CIS 9,
		CLU 2, CLU 3, PAR 6,
		ROP, SAR 1
	DFFD F	STA 1
	DEFD F	KLO 1, VAN 2
	DF FF F	ZIG

The St. Denis version comes about not by lowering the second F, but by adding a passing E (as can be seen in ELI) and then conflating the two Fs (already in DEN 1). The lowering of the second F, particularly favored by central and northern French sources but also found elsewhere, is already implied by the neumes in OTU 2 and BIS 1. It corresponds to an energy-saving phenomenon. The rising of the final E to F occurs only in Eastern sources.

Off. Reges Tharsis (G. T., p. 58)

33 (65)

<b><u>Reges Tharsis</u></b>	C A H H C C C H C C C	ALB, TOU
	C A H H C C C " A C C C C	BRC, CIS 9, CLU 3, ITI
		3, PAR 6
	C A C C C C C H C C C	YRX
	C A C C C C C C C C C	BEN 5, CHA 3, CLU 2,
		DEN 2, DIJ 1, KLO 1,
		LYO 3, MIL 2, NAR,
		ROG 1, ROP, STA 1,
		VAN 2
	C' A C C C C	CAM 2, FRA 4

VAT follows the majority of the sources. The neumes of MUR 3 (neumatic profile and significative letters) and BIS 1 (profile) suggest, however, that the original notes may have been different from all the above versions, i. e., the primitive version may have been: C A H H H H H C C C C<sup>5</sup>.

Off. Jubilate Deo omnis terra (G. T., p. 259)

34 (66)

<b><u>Jubilate</u></b>	F F	ALB, BEN 5, DIJ 1,
		FRA 4, ITI 3, LYO 3,
		MIL 2, ROG 1, STA 1,
		YRX

G G

CAM 2, CHA 3, CLU 2,  
 CLU 3, CIS 9, DEN 2,  
 KLO 1, PAR 6, ROP,  
 VAN 2

FRA 4 had G G before erasure; the erasure continues up to *Deo*.

35 (67)

Jubilat e

ACAG AHG

ALB, BEN 5, FRA 4,  
 ITI 3, LYO 3, MIL 2,  
 YRX

ACAG ABG

DIJ 1

ACAG ACG

CAM 2, CHA 3, CIS 9,  
 DEN 2, KLO 1, PAR 6,  
 ROG 1, ROP, STA 1,  
 VAN 2

ACGF AHG

CLU 2

ACGF GAG

CLU 3

36 (68)

o mnisB\ or BA

DEN 2, DIJ 1, ITI 3,  
 KLO 1, MIL 2, NAR,  
 PAR 6, ROG 1, ROP,  
 STA 1, TOU, VAN 2,  
 YRX

A or A\

ALB, BEN 5, FRA 4,  
 LYO 3

CA or CH	CHA 3, CIS 9, CLU 2, CLU 3
GHA	CAM 2

Cambrai takes the G from the preceding syllable.

37 (69)

<u>omnis</u>	BCBBGFG	ALB, BEN 5, FRA 4, MIL 2, PAR 6, STA 1, TOU, VAN 2, YRX
	BCABGFG	CHA 3, DEN 2, DIJ 1, ITI 3, KLO 1, LYO 3, NAR, ROG 1, ROP, ZIG
	BABCBGFG	CAM 2
	CDCCAGA	CLU 3
	CDHCAGA	CIS 9, CLU 2

Hesitation between an unisonic and a semitonal approach to B (or, in the Cluniac-Cistercian version, C) coming from the degree immediately above, C (or D), suggests either the presence of a non-diatonic interval, or a flexible performance practice. See below point of variance 136, and the additional observations on this melodic formula at the end of the chapter.

38 (70-71)

<u>terra</u>	FACEDCACBBG	ALB, BEN 5, CAM 2, FRA 4, LYO 3
--------------	-------------	------------------------------------

FACEDC BCB BG	CHA 3, DIJ 1, ITI 3, ROG 1, STA 1, VAN 2
FACEDC BCA BG	KLO 1, ZIG
FGBDCB GCB BG	DEN 2, PAR 6, ROP, YRX
GACEDC ADC CA	CLU 2, MIL 2
GACEDC CDC CA	CLU 3
FACEDC DC CA	CIS 9

The Cluniac version apparently influenced S. Millán de la Cogolla, and also left an unmistakable imprint on the Cistercian solution.

39 (72)

terra: iubilate F F F

BEN 5, DEN 2, DIJ 1,  
FRA 4, ITI 3, KLO 1,  
LYO 3, ROG 1, STA 1,  
ULT, VAN 2

F F A

ALB, BRC, CHA 3,  
MIL 2, NAR, TOU,  
YRX

F F AC

CAM 2

F A A

PAR 6, ROP

G G G

CLU 3

G G A

CLU 2

The unison is implied by BIS 1, CAM 4, CHA 1, ELI, LYO 1, MUR 3, OTU 2; CLU 1 and ITI 1 have a punctum and two virgæ, meaning that their version is related to ROP/PAR 6. The later Cluniac sources do not agree in contour, but the initial pitches are the same (G). The Aquitanian/Iberian manuscripts and Chartres behave differently from the rest.

40 (73)

iubil <u>at</u> c (end)	A C C A C G	BEN 5, CHA 3, DEN 2,
		DIJ 1, FRA 4, ITI 3,
		PAR 6, ROP, SAR 1,
		STA 1, VAN 2, ZIG
	A H C A C G	KLO 1
	A C C A H G	ALB, CLU 2, CLU 3,
		LYO 3, MIL 2, TOU,
		YRX
	A C G	CAM 2

ROG 1 skips most of this passage (probably a copying error), while CAM 2 simplifies it, against the contour of CAM 4 (one of many such occurrences). Cluny appears aligned with Aquitaine and Lyons in lowering the last C.

41 (75)

serv <u>i</u> te (end)	H	ALB, BRC, CLU 2, MIL
		2, NAR, TOU
	B	ITI 3

C

BEN 5, CAM 2, CHA 3,  
 CIS 9, CLU 3, DEN 2,  
 DIJ 1, FRA 4, KLO 1,  
 LYO 3, PAR 6, ROG 1,  
 ROP, STA 1, VAN 2,  
 YRX

VAT, with ACAH over *servite*, and CLU 2 (but not CLU 3) follow the version found in most Aquitanian/Iberian sources.

42 (76)

Dom ino

AHA

ALB, BEN 5, DEN 2,  
 DIJ 1, ITI 3, LYO 3,  
 YRX

ACA

CAM 2, CHA 3, KLO 1,  
 PAR 6, ROP, STA 1,  
 VAN 2

AHCA

CIS 9, CLU 2, CLU 3,  
 FRA 4, MIL 2, ROG 1

The last version corresponds to a quilismatic ascent found, for instance, in BIS 1, but not in CLU 1 in spite of its diastematic relatives.



Off. Jubilate Deo universa terra (G. T., p. 227)

43 (77)

<u>terra</u>	FACAG HGAH	ALB, BEN 5, CAM 2, CHA 3, CLU 2, CLU 3, FRA 4, ITI 3, LYO 3, MIL 2, PAR 6, ROG 1, ROP, YRX
	FACAG CGAH	DIJ 1
	FACAG CGAC	KLO 1, STA 1, VAN 2
	FACAG CAGAC	DEN 2

The north-Eastern sources (KLO 1, STA 1, VAN 2) raise both Hs to C. DEN 2 also does it, but inserts an extra note. This extra note is already present in ELI and DEN 1. Comparison with the transcriptions presented in Dean R. Justmann's dissertation on mode-one offertories<sup>6</sup> allows us to add to the HGAH category two Aquitanian sources (Paris, B. N. lat. 1132 and Avignon, Bibl. mun. lat. 181), four Beneventan sources (Benevento Cap. V.20, Montecassino 546, Roma Vat. Ottoboni Lat. 576 and Roma Vat. Lat. 6082), ten central and north-Italian sources (Modena Cap. O. I. 13, Toledo Cat. 52.11, Pistoia Cap. C 119, Pistoia Cap. C 120, Firenze Laur. Gadd. 44, Vercelli Cap. 161, Vercelli Cap. 162, Roma Vat. Rossi 231, Milano Ambr. S 74 and Torino Naz. F. IV. 18), three northern French sources (Paris Nat. lat. 904, Paris Nat. lat. 17310 and Provins Mun. 12) and two Insular sources (Cambridge Un. KK 2.6 and London, B.L. add. 12194). A filled-in variant, HAGAH, is found in Angers Mun. 96 and two Insular

manuscripts (Oxford Bod. Rawlinson C 892 and Worcester Cat. F 160). To the CGAH category one can add Bruxelles Roy. II 3824 and Salzburg S. Peter VII 20. An alternative version not recorded in our sample, HGAC, is transmitted by four northern French sources (Colmar Mun. 445, Roma Cas. 1695, Rheims Mun. 224 and Sens Mun. 16) and two Germanic ones (Melk 109 and Munich clm 2541). The CGAC category is enriched with Namur dioc. 515 and three Germanic manuscripts (Graz 1655, Karlsruhe Pergolesi 16 and Berlin 40078).

44 (78)

terra: iubil <u>a</u> te (start)	C A C	BEN 5, CHA 3, DEN 2,
		DIJ 1, FRA 4, ITI 3,
		KLO 1, PAR 6, ROG 1,
		ROP, STA 1, VAN 2
	C A H	ALB, BRC, CLU 2, LYO
		3, MIL 2, NAR, TOU,
		YRX
	C A B	CLU 3
	ACHAC	CAM 2

The preceding note is an A, the following a (low) G. Justmann's work reinforces the statistical weight of the CAC version with thirty-three (four Beneventan, nine central and north-Italian, ten northern French, four Insular, six Germanic) additional sources. The Cluniac manuscripts follow Lyons and the Aquitanian/ Iberian tradition (which is also joined by Paris 1132, Milano Ambr. S 74 and Melk 109) in yielding to the attraction of the following low note. Avignon

181 coincides with CLU 3. CAM 2, against the contour of CAM 4, ornaments the passage.

45 (80)

terra (2nd; end) CG GF

BEN 5, BRC, CAM 2,  
CIS 9, CHA 3, DEN 2,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, PAR 6, ROG 1,  
ROP, STA 1, TOU,  
VAN 2

HG GF

ALB, CLU 2, CLU 3,  
LYO 3, NAR, YRX

Cluny follows Lyons and most Aquitanian sources, to which one can add Paris 1132 and Milano Ambr. S 74. The preceding note is an A. The C beginning is additionally found in one Aquitanian, four Beneventan, nine central and north-Italian, eight northern French, four Insular and eight Germanic sources.

46 (81)

audite, e t

CD EDE

BEN 5, CHA 3, CIS 9,  
CLU 2, CLU 3, DEN 2,  
ITI 3, KLO 1, NAR,  
ROP, STA 1, VAN 2,  
YRX

CD EDF

CAM 2, PAR 6

CD FDE

ALB, LYO 3, MIL 2

CD FEDE	TOU
CD FFDE	BRC
CD F'D F'	DIJ 1, FRA 4, ROG 1

The versions of TOU and BRC stem from that shared by Albi-Gaillac, Lyons and S. Millán; it is also found in Melk 109, Modena O. I. 13, Toledo 52. 11 and Worcester F 160. Avignon 181 has CD F E F. The F is not found in the large majority of the above sources, to which one could add, on the basis of Justmann's dissertation, one Aquitanian, three Beneventan, two central or north-Italian, six northern French, three Insular and eight Germanic manuscripts. It is however supported by the FDF ending in manuscripts from Rouen, Rheims (Mun. 264), Dijon and Italy (FRA 4 and six codices transcribed by Justmann). The high F occurs earlier in this piece, but as an ornament of the (structural) E. While there is no obvious reason to raise the high E to F, the surplus energy needed to sing the F allows us to propose as explanation a hypothetical lowering of the pitch to E.

47 (83)

animæ (end) A C G

BEN 5, CAM 2, CHA 3,  
CIS 9, CLU 3, DEN 2,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, MIL 2, PAR 6,  
ROG 1, ROP, STA 1,  
TOU, VAN 2

A H G

ALB, BRC, CLU 2, LYO  
3, NAR, YRX

CLU 2 joins forces with Lyons and several southwestern sources, to which one could add Paris 1132. Avignon 181 has A B G.

Off. Dextera Domini (G. T., p. 267)

48 (93)

Dexter a (beg.) C' CCC

BEN 5, CAM 2, CHA 3,  
CIS 9, CLU 2, CLU 3,  
DEN 2, DIJ 1, FRA 4,  
ITI 3, KLO 1, LYO 3,  
MIL 2, NAR, PAR 6,  
ROG 1, ROP, STA 1,  
VAN 2

H CCC

ALB, BRC, TOU, YRX

The first note in TOU was erased, but its primitive position can be clearly seen to have corresponded to a H. The variant privileged by most southwestern manuscripts (ALB, BRC, TOU, YRX) is contradicted by the large majority of the sources consulted, but is supported by MUR 3 (tractulus with an *e[qualiter]* sign relative to the preceding note, and then an upper tristropha). This is, in fact, a formula common in Deuterus chants (see page 145 above). ALB privileges the semitonal attack: see also variant locations 6, 27, 31, 39, 48, 58, 82, 90, 91, 93, 107, 120, 143, 180, 197 and 237.

49 (94)

Domini (2nd) D F F DALB, BEN 5, DIJ 1,  
FRA 4, ITI 3, LYO 3,  
MIL 2, TOU

D E F D

CAM 2, CHA 3, CIS 9,  
CLU 2, CLU 3, DEN 2,  
KLO 1, PAR 6, ROG 1,  
ROP, STA 1, VAN 2,  
YRX

CHA 1, CLU 1, LAN and LYO 1 support the double F, while the alternative version is found in ELI, DEN 1 and OTU 2. Same phenomenon as in nr. 32.

## IN SEPTUAGESIMA

Off. Bonum est confiteri (G. T., p. 270)

50 (100)

confiteri AALB, BEN 5, DEN 2,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, LYO 3, MIL 2,  
ROG 1, STA 1, ULT,  
VAN 2

G A

CAM 2, CHA 3, CIS  
14, CLU 2, CLU 3,  
PAR 6, ROP

ELI has a virga, like most early manuscripts and also LYO 1, which suggests an A, but the pes version, corresponding to GA in the diastematic manuscripts, is already found in CLU 1, DEN 1, ITI 1 and OTU 2, i. e. Cluny and part of northern France. The initial note, G, echoes the preceding.

51 (101)

Domino

G A H A H

ALB, BEN 5, CHA 3,  
FRA 4, ITI 3, MIL 2,  
YRX

G A C A H

CAM 2, CIS 14, CLU 2,  
CLU 3, DEN 2, DIJ 1,  
LYO 3, PAR 6, ROG 1,  
ROP

G A C A C

KLO 1, STA 1, ULT,  
VAN 2

DIJ 1 has a H quilisma before the C. The following note is an A. In this location one can see how southern, West-Frankish and East-Frankish realms tend to diverge melodically. Raising the final H to C is typical of the East-Frankish "dialect", not a strictly German feature in spite of the label currently applied to it.

52 (102)

psaller e

CC

LYO 3

CH<sup>+</sup>

DIJ 1, STA 1, ULT

CH

ALB, BEN 5, CIS 14,

CLU 3, FRA 4, ITI 3,

KLO 1, MIL 2, ROG 1,

SAR 1, VAN 2

CA

CHA 3, ROP

CA DC

CAM 2, CLU 2, PAR 6

CA CDC

DEN 2

A clivis is given by ELI, ITI 1, LYO 1, MUR 3, OTU 2. The expansion in CLU 2 is prefigured by CLU 1, while the particular reading of DEN 2 mirrors the neumes in DEN 1.

53 (103)

nomini

A

ALB, BEN 5, CIS 14,

FRA 4, ITI 3, KLO 1

B A

CAM 2, CHA 3, CLU 2,

CLU 3, DEN 2, MIL 2,

PAR 6, ROG 1, ROP,

VAN 2

B A<sup>+</sup>

DIJ 1, STA 1, ULT

BB

LYO 3



While LAN and MUR 3 have a single note, a clivis is found in CLU 1, DEN 1, EPT, ITI 1 and OTU 2, created by repetition of the preceding note (an oriscus).

54 (104)

altissime (end) A H A A G

ALB, BEN 5, CAM 2,  
CHA 3, CIS 14, CLU 2,  
CLU 3, DEN 2, DIJ 1,  
FRA 4, ITI 3, MIL 2,  
ROP

A C A A G

KLO 1, STA 1, ULT,  
VAN 2

A C H A G

LYO 3

## IN SEXAGESIMA

Intr. Exsurge, quare (G. T., p. 91)

55 (105)

Adhæsit D

CHA 3

E

BEN 5, DIJ 1, MIL 2

F

ALB, KLO 1, ULT,  
VAN 2, ZIG

FE	CAM 2, CIS 14, CLU 2, CLU 3, DEN 2, FRA 4, PAR 6, ROG 1, ROP, STA 1
FD	ITI 3
ED	LYO 3

A punctum is found in the oldest neumatic sources, and also DEN 1 and BIS 1, while a clivis appears in CLU 1, ITI 1, LYO 1 and OTU 2. The preceding note, at the end of *Adhæsit*, is a G, and the following, on *in terra*, an F. The position of the neumes in LAN and the *i[nferius]* in MUR 3 suggest that *-sit* was originally sung lower than F (probably, on E, as in VAT). Attraction of the following F may have prompted the rise of E to F, while a passing F from the preceding G to E would have originated a clivis.

Grad. Sciant gentes (G. T., p. 88)

56 (106)

altissimus	A F	ALB, BEN 5, CIS 14, DIJ 1, FRA 4, ITI 3, KLO 1, LYO 3, ROG 1, ROP, STA 1, VAN 2
	A G F	CAM 2, CHA 3, CLU 2, CLU 3, DEN 2, PAR 6
	G F	NAR

The universal clivis is enriched with a passing note already in ELI, and also in CLU 1, DEN 1, ITI 1 and OTU 2.

The transcriptions in Jeffrey Wasson's dissertation allow us to add to the above sources four Beneventan, nine central-north Italian, two Aquitanian and four Germanic manuscripts<sup>7</sup>. The AF version is also shared by Benevento V. 19, VI. 35, VI. 38 and Vat. Ottob. 576; Modena O. I. 13, Roma Vall. C-52 and Vat. Rossi 76; Avignon 181 and Paris 1132; Graz 1655, Munich 2541, Rheims 224 and Wolfenbüttel 40. The AGF version is found in Torino B.N. F.IV.18 and Vercelli B. Cap. 162. The GF alternative is recorded by Milano B. Ambr. S 74 sup., Pistoia B. Cap. C119, Pistoia B. Cap. C120 and Toledo 52.11.

Off. Perfice gressus meos (G. T., p. 273)

57 (107a)

<b><u>Perfice</u></b>	C DFE	all except
	C DFF	CLU 3
	CDFD E	ALB
	CDFEF F	CIS 14
	DFE E	BRC,TOU

The version on top, adopted by the Vatican edition, is shared by most sources, including ITI 3, MIL 2 (with the first note faded away) and YRX; it corresponds to the neumatic contour of CHA 1 and MUR 3. The alternative versions are possibly due to later independent efforts to make the music conform to the textual accentuation, by having the first syllable of the word carry the neumatic weight primitively trusted to the second. This also explains

why the Cistercians, so keen at adhering to traditional melodic contours, here go astray. They do not innovate, however: the general neumatic profile and the presence of an oriscus in LAN implies a version equivalent to CDFEE<sup>+</sup> E, which is probably the archetype of the Cistercian one. The version from Toulouse/Braga is commented upon at the end of the chapter.

## 58 (107b)

Perfic e

E

ALB, BEN 5, BRC, MIL  
2, TOU, YRX

F

CAM 2, CHA 3, CIS  
14, CLU 2, CLU 3, DEN  
2, DIJ 1, FRA 4, ITI 3,  
KLO 1, LYO 3, NAR,  
PAR 6, ROP, STA 1,  
VAN 2

Benevento and the Aquitanian/Iberian sources preserve what is likely to be the primitive note (LAN indirectly implies an E), in spite of the fact that most diastematic manuscripts write an F<sup>8</sup>.

## 59 (108)

vestigia

H C C A

ALB, BEN 5, TOU

A C C A

CAM 2, CHA 3, MIL 2

C C C A

CIS 14, CLU 2, CLU 3,  
DIJ 1, FRA 4, ITI 3,  
LYO 3, PAR 6, ROG 1,  
STA 1, VAN 2, ZIG

C H C A

DEN 2, KLO 1, ROP,  
YRX

The preceding note, over vestigia, is an A. The initial H on ~~ti~~ is supported by the lower relative position of the first note in CHA 1 and ELI. After this (long) note, CHA 1, CLU 1, ELI, EPT, LYO 1 and MUR 3 have a trigon, which may explain the divergence between C and H in the diastematic manuscripts, or between unison (in LAN, implying C C) and ascending interval (in BIS 1, DEN 1 and ITI 1) in the neumatic ones.

60 (109)

mirifica mise H H HDH H

BEN 5

ricordias

H H HDC C

ALB

H H CDC C

MIL 2, TOU

C C CDC C

CAM 2, CIS 14, CLU  
2, CLU 3, DEN 2, DIJ  
1, FRA 4, ITI 3, KLO  
1, LYO 3, PAR 6, ROG  
1, ROP, STA 1, VAN  
2, YRX

C C C CDC

CHA 3

61 (111)

gentib <u>u</u> s	EF(G)ABG FFDED	all except
	EF ACG FFDED	CHA 3, CIS 14, PAR 6,
		ROG 1, SAR 1
	EF ABG FFED ED	DEN 2
	D AHG FFED ED	LYO 3

The first variant, with or without ascending quilisma (G), is shared by most sources, including CAM 2, CLU 3, FRA 4 and ITI 3. The neumes in CLU 1 and ITI 1 are compatible with it. The presence of a top C instead of a B in some sources leads us to suspect that H may have been a widespread intermediary solution; I was not able, however, to control the reading of the B note in every source. The ornamented version of DEN 2 is prefigured by DEN 1; the passing note is already found in ELI, whose contour however implies EFED instead of FFED. LYO 3 mirrors the contour of LYO 1. OTU 2 differs both from the universal version and from the other French versions.

## IN QUINQUAGESIMA

Off. Benedictus es Domine doce me (G. T., p. 277)

62 (112)

<b><u>B</u>enedictus</b>	F F	ROP
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G G	ALB, BEN 5, CAM 2, DIJ 1, FRA 4, ITI 3, KLO 1, LYO 3, MIL 2, ROG 1, STA 1, VAN 2
G A	DEN 2, PAR 6
F A	CHA 3, CIS 14
A A	CLU 2, CLU 3

The ascending G A variant seems at first sight to be originally a Parisian phenomenon: it is absent in the earliest neumatic versions including ELI, and also in BIS 1, CLU 1, ITI 1, LYO 1, OTU 2; but is already found in DEN 1. It illustrates however a general tendency to fill the tonal space of a wide ascending interval (the next note is a B natural). Cluny has a singular melodic interpretation of the initial unison.

63 (113)

<u>Domine</u>	H	ALB, BEN 5, CAM 2, DIJ 1
	C	all the others

64 (114)

<u>Dom</u> ine (beg.)	H	ALB, BEN 5, CAM 2, CIS 14, CLU 2, CLU 3, DEN 2, DIJ 1, FRA 4, LYO 3, ROG 1, ROP
-----------------------	---	--

C

ITI 3, KLO 1, STA 1,  
VAN 2, YRX

CHA 3 can not be read at this point, but when the passage is repeated it has an H. In the repeat, KLO 1 also has an H.

65 (115)

in labiis

GA GA

PAR 6

FG GA

CIS 14

EF FG

ITI 3

FF FF

DEN 2, FRA 4, ULT

EF FF

LYO 3

FF EF

CHA 3, CLU 2, CLU 3,

DIJ 1, ROG 1, STA 1

EF EF

ALB, BEN 5, CAM 2,

KLO 1, MIL 2, ROP,

VAN 2

The double clivis is found in the earlier neumatic codices, including ELI, and also in BIS 1, LYO 1 and OTU 2. Although CLU 1 transforms each clivis into a repercussed F, as in DEN 1 (and the later diastematic MSS DEN 2, FRA 4 and ULT), the Cluniac version in CLU 2 and CLU 3 is supported by the earlier ITI 1.



Co. Qui meditabitur (G. T., p. 67)

66 (117)

die

A AF

ALB, BEN 5, CIS 14,  
DIJ 1, FRA 5, KLO 1,  
ROG 1, ROP, SAR 1,  
STA 1, VAN 2, YRX

A GF

CHA 3

AAG G

MIL 2

A F

CAM 2, CLU 2, CLU 3,  
DEN 2, PAR 6

Contrary to most early codices, ELI has a punctum on die instead of a clivis; CLU 1 and DEN 1 seem to depend on this northern French version, arrived at by dropping the repeated A. AF seems to be the quasi-universal diastematic reading of this clivis, but the GF version was adopted by the Vatican edition of the *Graduale*. MIL 2 puts extra weight into the preceding syllable. Possibly both ELI and MIL 2 try in different ways to fit the music to the accentual pattern of the word.

67 (119)

tempore (beg.) G D

ALB, BEN 5, CHA 3,  
CIS 14, DIJ 1, FRA 5,  
ITI 3, KLO 1, LYO 3,  
MIL 2, ROG 1, ROP,  
STA 1, VAN 2, YRX

G F D

CAM 2, CLU 2, CLU 3,

DEN 2, PAR 6

G G E

SAR 1

The extra note in the Cluniac and Paris-connected sources is already found in ELI, and also in CAM 4, CLU 1, DEN 1 and TUR 3. ITI 1, however, keeps the majority version. SAR 1 transposes one tone up the whole passage after the initial note: GGEFG instead of GFDEF.

Co. Acceptabis sacrificium (G. T., p. 309)

68 (120)

sacrificium (beg.) A B G

ALB, BEN 5, CHA 3,

DIJ 1, MIL 2, ROP

A B A G

CAM 2, CLU 2, CLU 3,

FRA 4

A C G

DEN 2, KLO 1, STA 1,

VAN 2

CAG

PAR 6

G A G

ITI 3, LYO 3

A G

CIS 14, ROG 1

Among the neumatic sources, the extra filling note (corresponding to the penultimate note in the ABAG or CAG diastematic variants) is found in ELI, CLU 1, DEN 1, ITI 1 and TUR 3.

69 (121)

iustitiæ (mid.)

C G

KLO 1, STA 1, VAN 2

H G

ALB, BEN 5, CAM 2,

CLU 2, FRA 4, ITI 3,

MIL 2, ROG 1, ROP

HAG

CHA 3, DEN 2, PAR 6

B G

CIS 14, CLU 3, DIJ 1

A F

LYO 3

Among the neumatic sources, the extra filling note (corresponding to A in HAG) is found in ELI, DEN 1 and TUR 3.

## IN QUADRAGESIMA

Tr. Qui habitat (G. T., p. 73)

70 (123)

cæli

F D

ALB, BRC, DIJ 1, FRA

4, ITI 3, MIL 2, ROP,

STA 1

FED

CAM 2, CLU 2, CLU 3,

DEN 2, LYO 3

E D

CHA 3, CIS 14, KLO 1,

PAR 6, ROG 1, ULT,

VAN 2, YRX, ZIG

The extra filling note (E in FED) occurs also in CLU 1, DEN 1, ITI 1 and TUR 3. Since the preceding note is an F and the voice goes down to D, it is no surprise that some sources (followed by VAT) substitute an E for the original F.

71 (124)

<u>refugium</u>	DFDFDFDFDFDF	KLO 1, STA 1, ULT,
<u>meum, Deus</u>		VAN 2
	DEDEDEDEDEDE	BEN 2, CHA 3, DIJ 1,
		ITI 3, ROG 1, ROP
	DE D DE D DE D	ALB, BRC, FRA 4, MIL
		2, NAR, TOU, YRX
	DE D\ DE D DE D	CLU 2, CLU 3
	DF D\ DF D DF D	DEN 2, PAR 6
	D D\ DE D DE D	CIS 14
	DE DE D DE D	CAM 2

The neumatic version with six pedes is found in BEN 1, BIS 1, CAM 4, CHA 1, EPT, GAL 1 and LYO 1. The alternative version with three pedes and three puncta (with or without liquescence in the first punctum) is also found in CLU 1 and DEN 1 and probably derives from the carefully edited version found in LAN and ITI 1, with three pedes and three puncta, the first and the second being liquescent in correspondence with the final "m" sound of *refugium* and *meum*. Further editing (mirrored in CIS 14) substituted a punctum for the pes over *gi*, the only unaccented syllable that in the LAN/ITI 1 version still carried some neumatic weight; this step was not taken

by the Cistercians, however, for it is already mirrored in ELI. At Cambrai, at a much later stage, a secondary accent in the final syllable of *refugium* (in accordance with French pronunciation) may have led to the replacement of the punctum by a pes. The syllable *refugium* is sung in CAM 2 with the preceding turn of phrase, FEDE.

## 72 (125)

basiliscum (end) A G E

ALB, BEN 2, CIS 14,  
DIJ 1, FRA 4, KLO 1,  
MIL 2, ROG 1, STA 1,  
VAN 2, YRX

A G F

CAM 2, ITI 3

A GFE

CHA 3, CLU 2, CLU 3,  
DEN 2, LYO 3, PAR 6,  
ROP

The filling note (F in the last variant, A GFE) is also found in ELI, DEN 1, ITI 1, LYO 1 and TUR 3.

## 73 (126)

longitudine DF DF

CHA 3, DIJ 1, KLO 1,  
STA 1, VAN 2, ULT

D DF

DEN 2

D DE

CLU 2, CLU 3

DE D

ALB, BEN 2, FRA 4,  
MIL 2, ROP, YRX

DE DE

ITI 3, LYO 3, ROG 1,  
SAR 1

D D

CAM 2, CIS 14, PAR 6

GAL 1 and LAN have two pedes. The Cluny/St. Denis version corresponds to the neumatic contour in ELI, and also in CLU 1, DEN 1 and ITI 1.

Intr. Sicut oculi (G. T., p. 77)

74 (127)

donec

G

ALB, BEN 2, CAM 2,  
CHA 3, CIS 14, CLU 2,  
DIJ 1, FRA 4, ITI 3,  
KLO 1, MIL 2, PAR 6,  
ROG 1, ROP, STA 1,  
VAN 2, YRX

GA

CLU 3, DEN 2

A pes is already found in ELI, and also in CLU 1, DEN 1 and LYO 1, but not in ITI 1.

75 (128)

misereatur

GA

all the others

G

CAM 2, CIS 14, PAR 6

This is preceded by a G, and followed by a GA pes on *-se-*. A punctum over *mi-* is found instead of the normal pes already in ELI, and also in DEN 1 and EPT.

Intr. Reminiscere (G. T., p. 81)

76 (129)

Rem <u>i</u> niscere	F D	ALB, BEN 2, CHA 3, CIS 14, DIJ 1, FRA 4, ITI 3, KLO 1, MIL 2, ROP, STA 1, VAN 2, YRX
	D F D	ROG 1, SAR 1
	DEFED	CLU 2, CLU 3
	D FED	CAM 2, DEN 2, PAR 6

The clivis is supported by CHA 1, LAN and MUR 3. The alternative followed at Rouen and Salisbury is prefigured by OTU 2. CAM 4, with a clivis, does not support CAM 2. The Cluniac and the Parisian versions (the latter eventually adopted also in CAM 2) mirror respectively the contours of CLU 1/ITI 1/TUR 3 and DEN 1. The only difference between them is the disappearance in the Parisian area of the ascending quilisma (E) found not only in the Cluniac sources, but in ELI as well. The Cluniac/northern French variant is probably very ancient, as is additionally suggested by the fact that on *-nis-* CLU 1 has only a virga, against the pes in CHA 1 /LAN or the gutturalis in MUR 3: the two-note neume (generally translated as EF in the diastematic MSS) is meant to reinforce the

accented syllable —as comparison with the same intonation formula in the introit *Misericordia* makes clear — while CLU 1 betrays a more mechanical, archaic approach. Curiously, both CLU 2 and CLU 3 follow the majority on *-nis-*.

Grad. Tribulationes (G. T., p. 81)

77 (130)

m eu m

C

ALB, BEN 2, DIJ 1,  
ITI 3, KLO 1, MIL 2,  
STA 1, VAN 2, YRX

DC

CAM 2, CHA 3, CIS  
14, CLU 2, CLU 3, DEN  
2, FRA 4, PAR 6, ROG  
1, ROP

The clivis is also found in CLU 1, DEN 1, ELI, ITI 1 and OTU 2. The preceding note, at the end of *labore m*, is a D (with or without liquescence, in correspondence with a final *m* sound). The initial note of the clivis on *m eu m* ends up having a function similar to that of the preceding liquescence in GAL 1 and LAN (liquescent pes over *-rem*).



Tr. [or Grad.] De necessitatibus meis (G. N., p. 91)

78 (131)

<u>v</u> ide (end)	A G F	FRA 4, FRA 5
	A F E	CAM 2
	A G E	ALB, BEN 2, CIS 14,
		ITI 3, KLO 1, MIL 2,
		ROG 1, STA 1, YRX
	A GFE	CHA 3, CLU 2, CLU 3,
		DEN 2, DIJ 1, PAR 6,
		ROP, VAN 2

The filling note F in the last variant above appears in as early a manuscript as ELI and naturally also in CLU 1 and DEN 1. For additional neumatic information (CHA 1, LAN and five MSS from the St. Gall family), see the comparative transcription published by Fulvio Rampi<sup>9</sup>.

Off. Immittet angelus (G. T., p. 325)

79 (132)

<u>a</u> ngelus (beg.)	GC	ALB, BEN 2, CAM 2,
		CIS 14, DIJ 1, FRA 4,
		KLO 1, LYO 3, ROG 1,
		ROP, STA 1, VAN 2,
		YRX
	AC	CHA 3, CLU 2, CLU 3,
		DEN 2, MIL 2, PAR 6
	CC	ITI 3

The preceding note is a G. The G attack is implied by an *e[qualiter]* in MUR 3, and also by the fact that graphic position occupied by the initial punctum found in BIS 1, DEN 1 and LYO 1 is equivalent to that of the preceding one. The A attack in CLU 2, CLU 3 and other diastematic MSS is already implied by CLU 1 (use of a virga, placed higher than the preceding punctum and lower than the following repercussed notes).

80 (133)

<u>Domini</u> (end)	CHG	all except
	CHAG	CLU 2, CLU 3, DEN 2,
		PAR 6
	CHA	ITI 3

The filling note (A in the middle variant) is already present in CLU 1, DEN 1 and ITI 1, but not in TUR 3.

81 (134)

<u>eripie t</u>	H	ALB, BEN 2, ITI 3,
		MIL 2, TOU, YRX
	C	all the others

82 (135)

<u>gu</u> state	CC	CLU 3, LYO 3, PAR 6,
		ROG 1, STA 1
	CH <sup>+</sup>	DIJ 1, ULT

CH	BEN 2, CIS 14, CLU 2, DEN 2, FRA 4, ITI 3, KLO 1, MIL 2, ROP, TOU, VAN 2, YRX
CA	CHA 3
HA	ALB
A	CAM 2

This location coincides with Solesmes's point of variance nr. 15. A torculus (*initio debilis*) or a clivis account for most of the cases<sup>10</sup>. I did not take here into account the optional presence of an auxiliary intonation note. The microtonal reading of DIJ 1 (not acknowledged by Solesmes) and ULT (not included in their selection of sources) is confirmed by CLU 1 (wrongly listed among the sources with a repercussed note on page 49, correctly understood to have a clivis on page 306). A microtonal interval allows us to explain why the last note was risen to C and eventually often fused with the preceding C in a large number of sources from all geographical areas (BEN 6 and NAR among them).

Grad. Propitius esto (G. T., p. 288), V/. Aduva nos

83 (137)

Adu <u>va</u> nos Deus	A C C	CHA 3, YRX
	A <u>B</u> C	ALB, BEN 5, CLU 2, KLO 1, MIL 2, ROP, SAR 1, STA 1, VAN 2

A B C	CIS 14, CLU 3, FRA 5, ITI 3
G A C	FRA 4
F A G G C	CAM 2, DEN 2, PAR 6, ROG 1

The preceding note is an F. DIJ 1 does not include the full piece. CLU 1 has a clivis on *va*, against the virga in ITI 1 (followed by CLU 2 and CLU 3). The Parisian version (F A G G C) is already prefigured in ELI. The pes on *Deus* occurs also in LAN.

Co. Domine Deus meus (G. T., p. 87)

84 (138)

omnibus (end)	E DCD	ALB, BEN 2, CHA 3, CIS 14, DIJ 1, ITI 3, MIL 2, ROG 1, ROP, YRX
	F DCD	CAM 2, KLO 1, STA 1, VAN 2
	FEDCD	CLU 2, CLU 3, DEN 2, FRA 4, FRA 5, PAR 6

The Cluny/Paris version mirrors the contour in CLU 1, DEN 1 and TUR 3, not that in ELI, ITI 1, LYO 1 or OTU 2.

Off. Miserere mihi Domine (G. T., p. 92)

85 (140)

<u>s</u> ecundum,	A A	CHA 3, CLU 2, CLU 3,
sec <u>u</u> ndum (beg.)		PAR 6
	G G	ALB, BEN 2, CAM 2,
		CIS 14, DEN 2, DIJ 1,
		FRA 4, ITI 3, KLO 1,
		MIL 2, ROG 1, ROP,
		SAR 1, STA 1, VAN 2,
		YRX

The preceding note is a G, and a repercussed C follows. Cluny and some northern French sources shorten the tonal space between G and C with A, rather than repeat the preceding note.

86 (141)

<u>de</u> le	G CCC G	ALB, BEN 2, CIS 14,
		DIJ 1, ITI 3, KLO 1,
		ROG 1, STA 1, VAN 2,
		YRX
	G CCC AG	SAR 1
	A CCC G	MIL 2
	A CCC AG	ROP
	A CCCH AG	CLU 2, CLU 3, DEN 2,
		PAR 6
	A C C \ G	FRA 4
	A CCC A	CHA 3
	A CCA GA	CAM 2

The preceding note is a (high) B natural. The primitive G (confirmed by the *i[nferius]* in MUR 3) is "attracted" by the upper notes surrounding it. The Cluny/Paris filling notes at the end are already implied by the neumes of ELI, CLU 1, DEN 1 and ITI 1.

Off. Precatus est Moyses (G. T., p. 317)

87 (142/143)

<u>in conspectu</u>	D D FG FG	BEN 2, CAM 2, CIS
		14, CLU 2, CLU 3, DEN
		2, DIJ 1, FRA 4, ITI 3,
		KLO 1, MIL 2, ROG 1,
		STA 1, TOU, VAN 2,
		YRX
	D D GA GA	ROP
	D E GA GA	CHA 3
	E E GA GA	ALB, PAR 6

This passage is preceded, and followed, by (high) As, which "attract" it upwards. The FG pedes are confirmed by the *i[nferius]* qualifying the first note of both of them in MUR 3.

88 (144)

<u>Dominus</u>	between H and D	ALB, MIL 2, TOU
	between C and E	all the others

The Aquitanian sources center the passage around C, against the axis D otherwise universally agreed. D contributes to the seventh mode flavor of the piece, while C is the standard reciting tone of the assigned eighth mode. The variant could be either accidental (vocal relaxation) or due to an attempt to turn the piece into a less ambiguous, eighth mode composition.

Off. Domine, in auxilium (G. T., p. 331)

89 (145)

<u>Domine</u>	E FFF	ALB, MIL 2, TOU
	F FFF	all the others

TOU presents the offertory's incipit three times; it starts the incipit twice with E, once with F. The graphic position of the initial notes in CHA 1, LAN and MUR 3 (they share a single horizontal axis) seems to support the F beginning.

Off. Illumina oculos meos (G. T., p. 290)

90 (146)

<u>prævalui</u>	F FFF	CIS 14, CLU 2, CLU 3, DEN 2, DIJ 1, ITI 3, KLO 1, ROG 1, ROP, STA 1, VAN 2
	F FE	CAM 2
	E FFF	ALB, BEN 5, MIL 2, TOU, YRX
	D FFF	CHA 3

DF F

FRA 4

DFD FFF

PAR 6

The E start is supported by the lower graphic position of the initial note in CHA 1 (and, indirectly, by the alternative D in late diastematic sources), but a virga surmounted by *s[ursum]* indicates that the first note is already an F in MUR 3. LAN could be interpreted either way.

91 (147)

prævalui (beg.)

H C C

ALB

C C C

BEN 5, CAM 2, CIS

14, CLU 2, CLU 3, DEN

2, DIJ 1, FRA 4, ITI 3,

KLO 1, MIL 2, PAR 6,

ROP, STA 1, TOU,

VAN 2, YRX

C D D

CHA 3

D

ROG 1

In spite of its isolation among diastematic sources, ALB is supported by the neumatic contour in CHA 1, LAN and MUR 3.



Intr. Oculi mei (G. T., p. 96)

92 (148)

in <u>m</u> e	CDCC	GAG	ALB, BEN 5, CAM 2, CHA 3, CIS 14, FRA 4, ITI 3, KLO 1, MIL 2, ROP, STA 1, VAN 2, YRX
	CDCCHAGAG		ROG 1
	CDHCHAGAG		DIJ 1
	CDCHCHAGAG		CLU 2, CLU 3, DEN 2
	DCHCHAGAG		PAR 6, SAR 1

This location coincides with Solesmes's point of variance nr. 263. Most early manuscripts present a porrectus prepunctis followed by a (long) torculus. The neumatic versions of CLU 1, DEN 1, ELI and TUR 3 (which correspond to the diastematic reading of CLU 2, CLU 3 and DEN 2) are incorrectly reproduced in Solesmes's table: a note is missing.

Grad. Exsurge Domine, non prævaleat (G. T., p. 96)

93 (149)

<u>E</u> xsurge (beg.)	E FFF	ALB, BEN 5, MIL 2, TOU, YRX
	D EEE	CON
	F FFF	all the others

The version of Aquitaine/Benevento is supported by the neumatic contour of BIS 1, CHA 1, LAN and GAL 1.

94 (150)

infirm <u>abuntur et</u>	AH HC H H	BEN 5
	AH HC H C	ALB, MIL 2, TOU, YRX
	AC HC C C	CAM 2, CIS 14, CLU 3, FRA 4, PAR 6, ROG 1
	ACA H C C	CON, LYO 3
	AC C' C C	CHA 3, CLU 2, DEN 2, DIJ 1, ITI 3, KLO 1, MET 1, ROP, STA 1, VAN 2

95 (151)

<u>p</u> erient	H G	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, ITI 3, PAR 6, ROG 1, ROP, SAR 1, VAN 2
(or peribunt)		
	C G	ALB, BEN 5, DIJ 1, FRA 4, MET 1, MIL 2, STA 1, YRX
	AC G	ZIG

The preceding note is a C. The C beginning is supported by a *s[ursum]* over the first note of the (long) clivis in LAN. The

downward movement possibly made it occupy a lower, intermediate position H in many sources.

96 (152)

perie <u>n</u> t (end)	CCDCCAGHA HA AG	ALB, BEN 5, ITI 3, MIL 2, TOU, YRX
	CCDCCAGCA HA AG	CIS 14, CLU 3, FRA 4, LYO 3, PAR 6, ROG 1, SAR 1
	CCDCCAGACA HAG	CAM 2
	CCDHCAGCA HA AG	CHA 3, CLU 2, DEN 2, DIJ 1, ROP
	HCDHCAGCA CA AG	KLO 1, ULT, ZIG
	CCDCCAGCA CA AG	MET 1, STA 1, VAN 2

A repercussed C at the start is called for by the bistropha in GAL 1 and LAN. The semitonal beginning shared by Germanic sources is also implied by CAM 4 (its contour has however nothing to do with CAM 2); it has to do with the fact that the preceding note is an A. More on the DCC/DHC alternative below (see also nrs. 5, 37, 96, 122, 136, 192 and 246).

97 (153)

perient <u>a</u>	CCG	DEN 2, DIJ 1, FRA 4, KLO 1, LYO 3, STA 1, VAN 2, ZIG
------------------	-----	--

H C G	BEN 5, CAM 2, MET 1, MIL 2, ROG 1
A C G	CHA 3, CIS 14, PAR 6, ROP
A H G	ALB, CLU 2, CLU 3, ITI 3, SAR 1, YRX

The neumatic manuscripts consulted (BIS 1, CHA 1, CLU 1, DEN 1, EPT, GAL 1, LAN) have a torculus, which goes against the version presented on top (adopted by VAT).

98 (154)

a facie

AH H

ALB, BEN 5, MIL 2,  
TOU, YRX

AC C

all the others

The AC C version seems to be as old as CHA 1, GAL 1 and LAN, but the Aquitanian/Beneventan alternative preserves an archaic flavor (H is the primitive reciting tone of third mode pieces) which is probably older.

99 (155/156)

facie (mid.)

CCCAHCAGCCDACCD ALB, BEN 5, CAM 2,  
 CHA 3, CIS 14, CLU 2,  
 DEN 2, DIJ 1, ITI 3,  
 MIL 2, PAR 6, ROG 1,  
 ROP, SAR 1, VAN 2,  
 YRX, ZIG

CC CACCAGCCDACCD CLU 3

CC CACCAGCCDACDCD LYO 3

CCCAHCAGCCDAHCD KLO 1

CC CACCAGCCDAHCD MET 1, STA 1

CCCAHCAGCCDHCCD ULT

CCCAHCAGCCDGCCD FRA 4

100 (158)

facie

(near the end)

CA CC CLU 3, FRA 4

CA HC ITI 3, PAR 6

CG H'C ALB, BEN 5, MIL 2,  
 YRX

CG CC CIS 14, CLU 2, DIJ 1,  
 LYO 3, MET 1, ROG 1,  
 ROP, SAR 1, STA 1,  
 VAN 2

CG CH DEN 2

HG AC CHA 3

CAM 2, KLO 1 and ZIG are totally or partially lacunose at this point. GAL 1 and LAN support the Aquitanian/Beneventan version.

101 (159)

facie (end)

FFD

ALB, BEN 5, CAM 2,  
CHA 3, CLU 2, CLU 3,  
DIJ 1, FRA 4, MIL 2,  
ROG 1, SAR 1, VAN 2,  
YRX

EFD

CIS 14, DEN 2, KLO 1,  
LYO 3, MET 1, PAR 6,  
ROP, STA 1, ZIG

The E approach is at least as old as LAN (intermediate graphic position of the initial uncinus). The preceding note being a (high) G, the F alternative is more economical.

Tr. Ad te levavi (G. T., p. 97)

102 (161)

oculos

GCCD

BEN 5, CAM 2, CIS 14,  
CLU 2, DEN 2, DIJ 1,  
ITI 3, KLO 1, MET 1,  
ROG 1, ROP, SAR 1,  
STA 1, VAN 2

ACCD

CHA 3, CLU 3, FRA 4,  
LYO 3, PAR 6

CCD

ALB, MIL 2, TOU,  
YRX

The preceding note is a G. Some manuscripts fill the interval G - C with an A, rather than repeating the G. This location coincides with Solesmes's point of variance nr. 191. The neumatic versions collated at Solesmes confirm the Aquitanian character of the C - attack version.

103 (162)

m eos (beg.)

CHA CC

ALB, BEN 5, DEN 2,  
KLO 1, MIL 2, ROP,  
ZIG

CHA HC

CHA 3, CIS 14, CLU 2,  
CLU 3, DIJ 1, PAR 6,  
STA 1, VAN 2

CHA AC

MET 1

C A HC

CAM 2, FRA 4, ROG 1,  
YRX

CHA

ITI 3

The ascending H has no corresponding neume in GAL 1 and LAN.

104 (164)

ancillæ

FA AGA CAC

ZIG

AC GAHCAC

KLO 1, ULT

AC	GA	CAC	MET 1, STA 1, VAN 2
AC	GA	CAH	CAM 2, CHA 3, DEN 2, LYO 3, ROG 1, ROP
AH	GA	CAH	CIS 14
AH\	GA	CAH	PAR 6
AB	GA	CAH	CLU 2, CLU 3, DIJ
AH	GA	HAH	ALB, BEN 5, ITI 3, MIL 2, TOU, YRX
AH\	GA	HAH	FRA 5

The B flat at the beginning is only found in DIJ 1 and the two Cluniac sources (as a matter of fact, in CLU 3 the flat may or not apply, since there is some distance between it and *ancillæ*). The C alternative, adopted by both the Eastern MSS and a number of French MSS, can be easily explained if we suppose that H, not B, was the note sung during Carolingian times. The H is supported by the southern MSS, but also by some northern French ones.

Off. Iustitiæ Domini (G. T., p. 309)

105 (166)

<u>s</u> uper	F	ALB, BEN 5, DIJ 1, FRA 4, KLO 1, MET 1, MIL 2, STA 1, VAN 2, YRX
	FE	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, PAR 6, ROG 1, ROP



The following syllable has a D. A single note over *s<sub>u</sub>per* appears in BIS 1, ELI, LAN, LYO 1 and MUR 3, while CLU 1, ITI 1, OTU 2 and TUR 3 have a clivis.

106 (167)

<u>f</u> avum (mid.)	G F F	ALB, BEN 5, CHA 3, FRA 4, MET 1, MIL 2, TOU, YRX
	G E F	CIS 14, CLU 2, CLU 3, DEN 2, DIJ 1, ITI 3, KLO 1, ROG 1, ROP, STA 1, VAN 2

CAM 2 and PAR 6 simplify the passage on *fa-* to such an extent that comparison becomes impossible. In the context of a descending movement, F seems to be the easier variant, the one requiring less vocal or mental energy. VAT adopts the E alternative.

107 (168)

custodie <u>t</u>	E FF FC	ALB
	E FF FD	TOU
	F FF FD	BEN 5, CAM 2, CHA 3, ITI 3, KLO 1, LYO 3, MET 1, MIL 2, PAR 6, ROP, STA 1, VAN 2, ZIG

F FF FC

CLU 2, CLU 3, DEN 2,

DIJ 1, FRA 4, ROG 1

FEFF FC

YRX

E F DDC

CIS 14

The semitonal attack is supported by the position of the neumes in CHA 1 and MUR 3, but not LAN. A similar formula is found over the next syllable, ea: here it is the LAN neumes that suggest a semitone, while MUR 3 and CHA 1 imply a unison.

Co. Passer invenit (G. T., p. 306)

108 (171)

domum

FF FDF

LYO 3

FF EF

CIS 14, DEN 2, KLO 1,

MET 1, STA 1

EF EF

all the others

FRA 4/ FRA 5 transpose a fifth down; ITI 3 transposes a fourth down. YRX has a different melody. The neumation of DEN 1 implies F F F F, against the earliest sources including ELI, all of which have two pedes, in accordance with the diastematic majority reading E F EF.

109 (172)

Domin\_e

EFE

ALB, BEN 5, ITI 3,

MET 1, MIL 2

F F E

CAM 2, CHA 3, CIS  
14, CLU 2, CLU 3, DIJ  
1, DEN 2, FRA 4, FRA  
5, KLO 1, PAR 6, ROP,  
STA 1, VAN 2

D C

ROG 1

The preceding note is, in VAT, a G. The MSS BEN 1, CHA 1, CLU 1, DEN 1, EPT, LAN and MUR 3 have a torculus, implying E F E, while BIS 1 has a pressus, corresponding to F F E. Rouen transposes *altaria tua Domine* a third down. FRA 4 / FRA 5 and ITI 3 keep the transpositions referred to above.

110 (174)

beati

A C G

MET 1, VAN 2

A C A

ALB, BEN 5, KLO 1,  
STA 1

C D A

CAM 2, CHA 3, CIS 14,  
CLU 2, CLU 3, DEN 2,  
DIJ 1, ITI 3, PAR 6,  
ROG 1, ROP, ULT, ZIG

111 (176)

sæculi

C' D' C

CLU 3, DEN 2, ITI 3,  
MET 1, PAR 6, STA 1,  
ULT, ZIG

CDH	BEN 5, DIJ 1, LYO 3, ROG 1, TOU
CD A	ALB
CDCA	CIS 14, FRA 4, FRA 5
CDCH	KLO 1
CCH	CAM 2, ROP
HDA	CHA 3

LAN and MUR 3 have a torculus here. VAN 2 has a lacuna at this point. LYO 3 transposes a fifth down. ITI 3 and the Franciscan MSS maintain their respective transpositions. The penultimate note (C) in KLO 1 and in the Franciscan/Cistercian traditions, which can be interpreted as an extra, filling note, corresponds to a neumatic profile found already in BIS 1. The middle note of the CHA 3 version could be interpreted as a C (thus: H C A).

112 (177)

<u>la</u> udabunt (beg.) CDD	ALB, BEN 5, CIS 14, CLU 3, DIJ 1, MET 1, ROG 1, STA 1, TOU
HCD	CLU 2, ITI 3, KLO 1, PAR 6, ROP, VAN 2, ZIG
HC	CAM 2
ACD	CHA 3, DEN 2

Intr. In deo laudabo (G. T., p. 100)

113 (178)

<u>verbum, in</u>	H	A H\	ITI 3
	H	H C	ALB, BEN 5, ROP
	H	C	MIL 2
	C	H C	YRX
	C	A C	CAM 2, CHA 3
	C	C C	CIS 14, CLU 2, CLU 3, DEN 2, DIJ 1, FRA 4, KLO 1, MET 1, PAR 6, ROG 1, STA 1, VAN 2

The double H in Albi-Gaillac, etc., seems to be implied by an *e[qualiter]* in MUR 3, the parallel puncta in ELI and the graphic placement of the neumes in LAN. It has already been raised to C in BIS 1, CLU 1, DEN 1 and LYO 1.

114 (179)

(2nd) laud <u>a</u> b o	C A	KLO 1, MET 1, STA 1, VAN 2
	H A	all the others

The preceding note is an A. East-Frankish variant.

115 (180a)

speravi

G A G F E

CHA 3, CIS 14, CLU 2,  
DEN 2, PAR 6

G A G E

all the others

This location coincides with Solesmes's point of variance nr. 270. The extra, filling note F is already present in ELI, and also in CLU 1, DEN 1, ITI 1 and TUR 3.

116 (180b)

timeb o

C D C H A

CAM 2, CLU 3, DEN 2,  
PAR 6

C D C A

all the others

This location coincides with Solesmes's point of variance nr. 271. The extra, filling note H is already present in ELI, and also in CLU 1, DEN 1 and ITI 1.

Off. Exaudi Deus (G. T., p. 100)

117 (181)

despexeris d e-  
precationem

AGH H HDCC

ALB, BEN 5

AGH H CDCC

FRA 4, ITI 3, MIL 2

AGC C CDCC

all the others

VAT follows the majority variant. LAN and MUR 3 are compatible with both this variant and that shared by Albi-Gaillac

and Benevento. Taking into account the modal context, the repercussion on H is the *lectio difficilior*, and one from which the C alternative could easily have been derived.

Intr. Ego autem ... speravi (G. T., p. 111)

118 (182)

<u>læt</u> abor	G AC	CLU 2, CLU 3
	A AC	DEN 2
	A C	ALB, BEN 5, CAM 2, CHA 3, CIS 14, DIJ 1, FRA 4, ITI 3, KLO 1, MIL 2, PAR 6, ROG 1, ROP, STA 1, TOU, VAN 2, YRX

The syllable *læt*abor is Solesmes's point of variance nr. 225. Among neumatic sources, the pes (corresponding to AC) appears only in CLU 1, DEN 1, ELI and ITI 1. In neumatic contour, Cluny is thus part of the larger French tradition, but in diastematic translation, it appears isolated.

Off. Domine, fac mecum (G. T., p. 104)

119 (183)

Domine (end)	H D H	CHA 3, CIS 14, CLU 3, DIJ 1, PAR 6, ROG 1, ROP, VAN 2, YRX, ZIG
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A D' H	BEN 5, CAM 2, FRA 4, STA 1
A D C	ALB, ITI 3, KLO 1, ULT
C D C	CLU 2, LYO 3
A C A	DEN 2, MIL 2

The preceding and the following notes are Gs. The relative difficulty of the Beneventan variant A D H (taking into account the melodic context) suggest that it is the most conservative (*lectio difficilior*) of those presented here, particularly as this reading is supported by other sources of diverse origin, and corresponds to the graphic contour in LAN. The "attraction" of the upper D may be seen behind the variants that shift the initial A upward to H or C, and the final H to C.

Off. Si ambulavero (G. T., p. 341)

120 (185)

vivificabis <u>m</u> e (mid.)	H C C H A	ALB, BEN 5
	C C C H A	all the others

The semitonal attack is supported by lower graphic position of the initial note in CHA 1. The additional letter over the second note in MUR 3 is not clearly readable from the *Paléographie musicale* facsimile (is it an *a[ltius]* or an *e[qualiter]*? The G. T. has an *e[qualiter]*, but further confirmation should be sought).



Off. Intende voci (G. T., p. 280)

121 (186)

Rex me <u>u</u> s, <u>e</u> t	AH	AH	ALB, BEN 5, CLU 2, CLU 3, DIJ 1, FRA 4, ITI 3, LYO 3, MIL 2, YRX
	HA	AH	CAM 2
	GA	FG	CIS 14
	A	GA	PAR 6, SAR 1
	A	AC	CHA 3, ROG 1
	AC	AC	DEN 2, KLO 1, ROP, STA 1, VAN 2, ZIG

CAM 2 does not corresponded to CAM 4 (which has two pedes, as do all the neumatic manuscripts consulted do including BIS 1, ITI 1 and OTU 2). VAT has AH GA, a version absent from this sample and unsupported by the neumatic manuscripts consulted.

122 (187)

Deus <u>m</u> eus (mid.)	DC CAG ... DC CAG	ALB, BEN 5
	DCC G ... DC CAG	MIL 2, YRX
	DC CA ... DC CAG	FRA 4, ITI 3, PAR 6
	DC CA ... DH CAG	CIS 14, LYO 3
	DCC G ... DH CAG	CHA 3, CLU 2, CLU 3, DEN 2, DIJ 1, KLO 1, ROP, STA 1
	C G ... CAG	CAM 2

The first of these two melismatic gestures is Solesmes's point of variance nr. 299. ALB and BEN 5 are almost alone in giving five instead of four notes: only two neumatic manuscripts agree. This is only one of several cases where a seemingly spurious variant (not encountered in the earliest MSS nor geographically widespread) is shared by Aquitaine and Benevento<sup>11</sup>. CAM 4 does not have the cuts which set CAM 2 apart. On the DCC / DHC alternative, see below.

Off. Gressus meos (G. T., p. 365)

123 (188)

Gressus meos di- D F\ F F FAG ALB, MIL 2

rige

D DG G G GAG ITI 3

D DG FG G GAG ZIG

E EG EG G GAG KLO 1, ULT

F FG G G GAG BEN 5, CLU 2, CLU 3,

DEN 2, DIJ 1, FRA 4,

STA 1, TOU

F FG\ G G GAG LYO 3

G G\ G G GAG YRX

G FG G G GAG CAM 2, CIS 14,

PAR 6, ROG 1, SAR 1

G FG GA G GAG ROP, VAN 2

G FG GAHAGA AG GAG CHA 3

On the basis of the above sample, there are three main neumatic contours: one, with a single pes on the syllable *-sus* and a single note on *me-*, is found all over France and Italy, going apparently not further East than BIS 1 and STA 1; another contour, with two pedes (on *-sus* and *me-*), occurs in northern France and in the Germanic area (ZIG, KLO 1/ULT, ROP/VAN 2, but also, as will be seen below, CHA 1, LAN and MUR 3). More research would be needed to confirm these results, which point to the primitiveness of the second pes. A third contour, with a cephalicus on *-sus* and a single note on *me-*, is shared only by ALB, MIL 2 and YRX. These manuscripts also choose as starting note a logical degree in the context of an eighth-mode piece (low D or final G), then maintain, or skip upward to a reciting pitch.

A pes on meos is found in CHA 1, LAN and MUR 3. MUR 3 indicates an unison between *gres-* and the beginning of *-sus*, followed by the pes on meos starting lower than the preceding note. The reading in the Graduale Lagal (F FG FG G GAG) is therefore a plausible interpretation of MUR 3, as is the variant in KLO 1 and ULT. From a melodic point of view, these hypothetical archetypal versions do not throw into relief the accented syllables; the insistence on E in KLO 1/ULT is more atypical of the eighth mode than the choice of F. In a post-Hucbaldian context, the possible impression of modal inadequacy and disregard for accent in this passage may have inspired some editing, thus explaining the ROP/VAN 2 variant; it may also have justified the trimming of the second pes (from EG to G), which occurs already in BEN 1 and ITI 1. The enriched alternative presented by CHA 3 is an example of a judiciously placed

embellishment (on the accented syllable). The fact that it found its way into a Missal suggests that it was regarded as an integral part of the piece, i. e. something well remembered and to be kept in the future; this could only have happened if over the years it had been repeatedly sung. Similar ornamentation procedures seem to have been common in the performance of chant around 1200. Less imposing embellishments were anyway current in northern France during the tenth century, as several points of variance presented here testify (cf. nrs. 30, 52, 74, 83, 118, 145, 148, 150, 170, 219, 223, 225, 230, 232, 240 and 242).

Intr. Lætare Ierusalem (G. T., p. 108)

124 (189)

<u>qui diligitis</u>	H	H	H	CHA 3, ITI 3
	<u>B</u>	<u>B</u>	<u>B</u>	CLU 2, DEN 2, ROP,
				STA 1, VAN 2
	B	B	B	CAM 2, CIS 14, CLU 3,
				DIJ 1, FRA 4, PAR 6,
				ROG 1
	B	B	BG	LYO 3, ZIG
	A	A	<u>B</u>	BEN 5, MIL 2, TOU
	A	A	<u>AB</u>	ALB, BRC, YRX
	A	A	A	KLO 1

The neumatic manuscripts generally have a three-note unison. LAN, however, implies a third note higher than the preceding, in

accordance with the word-accent on *diligitis*. The idea is adopted by Aquitaine (ALB, TOU, YRX, plus the Iberian BRC and MIL 2) and BEN 5 (followed by the Graduale Lagal), and its effect reinforced by the pes in ALB, BRC and YRX. It is not the first time that we encounter LAN leading a text-conscious revision of the undifferentiated and presumably primitive melodic contour.

125 (190)

<u>s</u> atiemini	A	ALB, BRC, CHA 3, ITI 3, LYO 3, TOU, YRX
	G	all the others

The preceding notes are (high) Cs, and the next, a H. The melodic context seems to have "attracted" the G to the degree immediately above.

126 (192)

<u>u</u> beribus	GB BB B	KLO 1
	GB B A B	CHA 3
	GB A+A+B	DIJ 1
	GA AB	ALB, BEN 5, CIS 14, MET 1, MIL 2, ROG 1, VAN 2
	GA A <u>B</u>	FRA 4
	GA A <u>B</u> A	PAR 6
	GA ABG	CLU 3
	GA AA	ROP

G A        A                    CAM 2, CLU 2, DEN 2,  
    ITI 3, SAR 1, STA 1,  
    YRX, ZIG

Over the first syllable, the universal tradition as recorded by most neumatic manuscripts including CHA 1, LAN and MUR 3 is a pes; ELI has however two virgæ. The next syllable had originally a salicus; the microtonal character of the neume (as revealed by A+A+B in DIJ 1) explains the hesitation between B and A in the diastematic tradition. Metz, Albi-Gaillac and Benevento make it equivalent to an AB pes; a liquescence added to it (as recorded by FRA 4) eventually led to its transformation into a torculus in OTU 2, followed by CLU 3 and PAR 6. Another line of evolution, the transformation of the salicus into two virgæ, is represented among the neumatic sources by DEN 1 (not ELI), mirrored by ROP; most diastematic manuscripts witness the next evolutionary step, the crasis of the two virgæ into a single note, A. The relatively low position of the pitch (considering the A+A+B in DIJ 1) is possibly due to the downward attraction of the following note, G, on *uberibus*. In a different melodic context, the salicus tends to be resolved upward. Thus, in the tract *Qui confidunt*, where the syllable *sicut* has a salicus united with a clivis CA, the beginning of the neume is an A in ROP; a C in CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, DIJ 2, FRA 4, ITI 3 (although the preceding *custos* calls for a H), KLO 1, MET 1, PAR 6, STA 1 and VAN 2; and an H in ALB and BEN 5<sup>12</sup>.

127 (193)

(Ps.) <u>sunt</u> mihi	C	CHA 3, CIS 14, FRA 4,
		MET 1, STA 1, VAN 2
	D	BEN 5, KLO 1, PAR 6,
		ZIG

MUR 3, with a *s[ursum]* over *sunt* relative to the preceding recitation on C, calls for a D. A C allows however the accented syllable of the next word, *mihi*, to stand out by melodic acuity, since it has a D.

128 (195)

(Ps.) <u>ibimus</u>	C C	CHA 3, CIS 14, MET
		1, STA 1, VAN 2
	H C	BEN 5
	C B	KLO 1
	C A	FRA 4, ZIG

A unison is implied by two virgæ in MUR 3 and the graphic position of the neumes in CAM 4. The lowering of the second C to B or A (as in VAT) may be due either to vocal relaxation or to æsthetic design, since it allows the accented syllable *ibimus* to stand out in comparison with the preceding and following notes. The comparison in the two points of variance above (127 and 128) was limited to ten and nine sources, respectively, because many copyists do not write in full the introit psalmody.

Grad. Lætatus sum (G. T., p. 336)

129 (196)

<u>dicta</u>	GEF	KLO 1, MET 1, VAN 2, ZIG
	GFF	ALB, BEN 5, CAM 2, CHA 3, CIS 14, CLU 2, DEN 2, DIJ 1, ITI 3, FRA 4, MIL 2, PAR 6, ROP, STA 1, YRX
	GFFV	CLU 3, SAR 1
	GFFE	ROG 1

CHA 1, GAL 1 and LAN have a porrectus here, implying the GE F variant, which is anyway, from the vocal point of view, less economical than the alternative GFF, and therefore more likely to correspond to the primitive turn of phrase. The extra note E in the last variant corresponds to the liquescence in the preceding; one may conceive these two variants as instances of a single basic reading shared by Norman and English sources (including CLU 3, which suggests some local influence on the Cluniac traditions of Lewes). The following syllable, *dicta*, has a D. See the commentary on point of variance 136, below.



130 (197)

<u>mi</u> <u>h</u> <u>i</u> (end)	G F	DED	FRA 4
	EGF F	DED	ALB, BEN 5, CAM 2,
			CIS 14, CLU 2, CLU 3,
			DEN 2, DIJ 1, MIL 2,
			PAR 6, ROG 1, ROP,
			SAR 1, YRX
	EGF F	DFD	STA 1, VAN 2
	EGE F	DFD	MET 1
	FGE E	DFD	KLO 1
	FGF F	DFD	ZIG
	FGF F	DED	CHA 3, ITI 3

In the neumatic versions of CHA 1, GAL 1 and LAN, this passage consists of torculus, oriscus, torculus (a three-note arch-contour followed by a single element and again a three-note arch contour). Given the microtonal implications of the oriscus (see chapter 6), it is not surprising that the diastematic tradition hesitates between the E unison (surprisingly presented by KLO 1, a manuscript which tends to raise mi notes to fa) and the F unison (privileged by most sources, including those that tend to keep the mi notes like ALB and BEN 5), with the MET 1 variant giving us an alternative path, a semitone between E and F. VAT adopts the majority variant, E G F F D E D. The primitive melody may have been E G E E<sup>+</sup> D E D.

131 (201)

<u>pax</u> (end)	DFD	KLO 1, MET 1, STA 1, VAN 2
	DED	all the others

132 (202a)

<u>virtute</u> (beg.)	D F D F E F	CAM 2
	D F E F E F	CHA 3, CIS 14, PAR 6, ROG 1
	D F F E F	CLU 2, CLU 3, DEN 2, DIJ 1, MET 1, STA 1, VAN 2, YRX
	D F F F F	ALB, BEN 5, FRA 4, ITI 3, KLO 1, LYO 3, MIL 2, ROP, ZIG
	D F F F F E	SAR 1

Most neumatic sources, including CHA 1, ELI, GAL 1 and LAN, support the double unison on F, as in ALB, BEN 5, etc. The FF EF version is found in EPT and OTU 2 (but not in CLU 1 and DEN 1), while the FEF EF (or FDF EF) contour is corresponded by CAM 4.

133 (202b)

<u>virtute</u> (end)	A G F F E D	CAM 2, DEN 2, PAR 6
	A G F F D	all the others

The extra, filling note E occurs already in ELI, and also in DEN 1 and OTU 2.

134 (204)

tua: e t

D

ALB, CIS 14, CHA 3,  
CLU 2, CLU 3, FRA 4,  
MIL 2, PAR 6, ROG 1,  
SAR 1, TOU, YRX

C

CAM 2, DEN 2, DIJ 1,  
KLO 1, MET 1, ROP,  
STA 1, VAN 2

H

BEN 5, ITI 3

The preceding passage on *-te tua* establishes a strong tonal frame, the minor third C - A, and ends on the lower G (prepared by a H, or, in a number of Eastern and northern French sources, a C). After the hold on G, the pitch on *et* represents a sudden leap upward, with an immediate return to the low G on the next syllable, *abundantia*, followed by a movement toward the high C or D. This means that the (high) D version on *et* is the one less predictable (in spite of the fact that in this piece it is a modally standard reciting tone) and requiring more vocal energy. The surrounding low Gs may have contributed to relax vocal tension, bending the pitch down to C, as in DIJ 1, or even to B natural, as in Benevento.

135 (205)

<u>abundantia</u>	G G/	CLU 2, CLU 3
	G GD	ITI 3, SAR 1
	G A/	ALB, BEN 5, CHA 3, DEN 2, DIJ 1, FRA 4, KLO 1, LYO 3, MIL 2, ROP, STA 1, VAN 2, YRX
	G DC	CIS 14, PAR 6
	C CD	ROG 1

The G A/ version, adopted by VAT, is already implied by the spatial distribution of the neumes in LAN. The G unison (as in the Cluniac sources, ITI 3 and SAR 1) is however conceivable within a traditional melodic style and can be best understood as an archaic survival rather than the fruit of development: given the ascending direction of the movement, it is easy to see how a G would have gone up (as happened in locations 62, 79, 85, 102, 139, 142 and 146), while it would be difficult to account for the opposite phenomenon on the basis of verifiable tendencies in the manuscript tradition.

136 (206b)

<u>tuis</u> (end)	CDHCAG AHA AG	CIS 14, CLU 2, DEN 2, DIJ 1, ITI 3, ROP
	CDHCAG ACA AG	KLO 1, ZIG
	CDCCAG AHA AG	ALB, CLU 3, FRA 4, MIL 2, PAR 6

CDCCAG ACA AG

MET 1, STA 1, VAN 2

BEN 5, following BEN 1, presents here a unique melismatic elaboration, not included in the table. CHA 3 and ROG 1 do not have the complete melisma. The A C A torculus occurs only in East-Frankish sources. Both the CDHCAG and the CDCCAG versions of the initial formula have a large geographical distribution; BEN 1 and the shape of the neume in LAN support the HC variant; CHA 1 and GAL 1 are not incompatible with it. See also locations 5, 37, 96, 122, 192 and 246, and the additional observations at the end of the chapter.

Tr. Qui confidunt (G. T., p. 109)

137 (208b)

sicut (end)

C A

ALB, BEN 5, DIJ 2,

CHA 3, CIS 14, CLU 2,

CLU 3, FRA 4, KLO 1,

MET 1, PAR 6, ROP,

STA 1, VAN 2

CH A

CAM 2, DEN 2, ITI 3

The filled-in version C H A occurs already, in neumatic contour, in ELI and DEN 1.

138 (209)

mons

DHC

KLO 1, MET 1

DCC

all the others

The semitonal approach to C, although retained by only two codices, corresponds to the porrectus found in all the neumatic sources consulted, except BEN 1<sup>13</sup>. There may be a reason for the almost unanimous preference for the unison in the diastematic manuscripts. BEN 1 writes the last note, C, as an oriscus, which indicates that the preceding interval is smaller than a semitone. LAN has a *s[upra]* letter next to the lower note of the porrectus, suggesting that this is to be raised somehow. The middle note is thus likely to have been a non-diatonic pitch. It was eventually assimilated either to an H or to a C (the editor of DIJ 1, which alone had the means to record its real tonal position, excluded this piece from the Tonary).

## 139 (211)

<u>i</u> n æternum	AC	CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, ROP
	GC	all the others
	GAC	CAM 2

LAN has an *eq[ualiter]* between this pes and the preceding note, G. CAM 4, with a pes, does not correspond to CAM 2.

## 140 (212a)

habit <u>a</u> t	GFG	CIS 14, DIJ 2, ITI 3, MET 1, STA 1, VAN 2
	GFGA	all the others

The next note is a G.

141 (213)

<u>Montes</u> (beg.)	D G C A G D G	BEN 5, CAM 2, CHA 3,
		CIS 14, CLU 2, CLU 3,
		DEN 2, DIJ 1, FRA 4,
		ITI 3, KLO 1, LYO 3,
		MET 1, PAR 6, ROG 1,
		ROP, STA 1, VAN 2,
		ZIG
	E G H A G E G	ALB, BRC, MIL 2,
		TOU, YRX

The Aquitanian/Iberian sources (ALB, BRC, MIL 2, TOU and YRX) unanimously diverge from the rest. They substitute juxtaposed thirds for juxtaposed fourths. This confirms Charlotte Roederer's tentative view of an "Aquitanian chant style", based on her analysis of the *Stetit* (*Stabat*) *angelus* pair of processional antiphons: "The Aquitanian G-mode chant uses *b* as an important secondary reciting tone [and] tends to operate within tonal spaces outlined by conjunct trichords, such as *E-G*, *G-b*, and *b-d* rather than within spaces outlined by a combination of tetrachords and pentachords, as is typical of the Gregorian chant"<sup>14</sup>. This "Aquitanian chant style" is evidently a Gallican melodic dialect: at a second intonation, following an intermediate cadence, as in Montes, Gallican chant typically uses juxtaposed thirds<sup>15</sup>.

142 (214)

<u>in circuitu</u>	F G G C	ZIG
	G G G C	DIJ 2, FRA 4, ITI 3, KLO 1, MET 1, STA 1, VAN 2
	G G GAC	CAM 2
	G G A C	CHA 3, CIS 14
	G G C C	BEN 5, LYO 3
	F A C C	CLU 2, CLU 3
	G A C C	DEN 2, PAR 6, ROG 1, SAR 1, YRX
	G C C	ALB, MIL 2, TOU

The pes on *circuitu* is supported by most neumatic manuscripts; the low note is likely to have been a G. The shift of the pes back to *cir-*, as in the Cluniac sources, DEN 1, etc., is found already in BEN 1, DEN 1, ELI, ITI 1, LYO 1 and OTU 2.

143 (215)

<b>Dominus</b>	H	ALB, BRC, YRX
	C	all the others

This note is followed by repercussed Cs. The H in ALB, BRC and YRX is supported by the lowered uncinus in LAN, while most sources side with GAL 1.



144 (216)

populi

G A

A

CLU 3, KLO 1, ZIG

ALB, BEN 5, CAM 2,

CIS 14, CLU 2, DEN 2,

DIJ 2, FRA 4, ITI 3,

MET 1, MIL 2, PAR 6,

ROG 1, STA 1, VAN 2,

YRX

A B

ROP

A H

CHA 3

This location coincides with Solesmes's point of variance nr. 72. A fifth category, A C, is also recorded by the monks of Solesmes<sup>16</sup>. The preceding note is a G, the following, an A. The pes, which coincides with the accented syllable, is supported by CHA 1 and GAL 1, against the single note in BEN 1, BIS 1, ELI, EPT, ITI 1 and LAN.

145 (217)

sui (mid.)

AG

CAM 2, CIS 14, CLU 2,

DEN 2, PAR 6, ROG 1,

VAN 2

AG AG

all the others

The elimination of a clivis occurs already in ELI and DEN 1, against most neumatic manuscripts including BIS 1, ITI 1 and OTU 2. VAT follows the only manuscript consulted which has a third clivis, LYO 1<sup>17</sup>.

146 (219a)

secul <u>u m</u>	G C C ...	BRC, CIS 14, DEN 2,
(beg. of 2nd phrase)		MIL 2
	A C C ...	CLU 2, CLU 3
	C C ...	all the others

Before this internal reintonation, there is a pause on G. The repetition of the G, although only natural, or the Cluniac alternative A, are not supported by most neumatic manuscripts; a low note preceding the C is only implied by BIS 1, DEN 1 and ITI 1. ALB, DIJ 2 and STA 1 do not record this section of the melisma.

147 (219b)

secul <u>u m</u>	A G	CLU 3
(end of 2nd phrase)		
	G A G	BEN 5, CLU 2, DEN 2,
		FRA 4, ITI 3, KLO 1,
		LYO 3, MIL 2, VAN 2,
		YRX, ZIG
	G A F	ROP
	G AGF	ROG 1, CIS 14
	G AGA	MET 1

GAL 1 and LAN have a torculus. VAT adopts the reading of ROP. CHA 3 does not write the full melisma.

148 (220)

secul <u>u</u> m (end)	H A A G	CIS 14, PAR 6, ROP, ZIG
	H C A A G	CLU 3
	C A A G	BEN 5, BRC, CLU 2, FRA 4, ITI 3, KLO 1, LYO 3, MIL 2, TOU, VAN 2, YRX
	G C A H A A G	DEN 2, ROG 1

The preceding note is an A. VAT follows the Cistercians, in spite of the fact that the high C, requiring more energy, is presented by sources unsuspected of East-Frankish tendencies like BEN 5, BRC, TOU and YRX. Rouen (ROG 1) and St. Denis (DEN 2) present an embellished version. ELI has only the first phrase of the melisma. CAM 2 does not have the final phrase.

Off. Laudate Dominum (G. T., p. 110)

149 (224)

<u>s</u> uavis	FE	CLU 2, ITI 3
	FF	all the others

The unison is supported by all the neumatic codices examined. CLU 3 also has two Fs. CAM 2 and FRA 4 fuse them. The following note in this passage is an F as well.

150 (227)

fecit

DCDED

all except

DCDFD

MET 1, STA 1, VAN 2,

ZIG

DCDEDCD

CHA 3, CIS 14

151 (228)

in terra

DCDEDCD

all except

DCDFDCD

MET 1, STA 1, VAN 2,

ZIG

Com. Ierusalem, quæ ædificatur (G. T., p. 370)

152 (229)

Ierusalem

E' F D E

ALB, BEN 5, CLU 2,

CLU 3, DIJ 1, ITI 3,

MIL 2, ROG 1, YRX

F E F D E

CHA 3

F F D E

DEN 2, FRA 4, FRA 5,

PAR 6

E F D F

KLO 1, ROP

F' F D F

CAM 2, MET 1, STA 1,

VAN 2, ZIG

F F E

CIS 14

The Cistercian version (CIS 14) is part of a revised incipit, conceived to avoid the low C over *Ierusalem*, and constitutes

therefore a category of its own. Near the end of the piece, in *tuq*, the Cistercians also eliminate the low C.

Over the first syllable of this communion, one finds in the oldest neumatic sources (CHA 1, LAN, MUR 3) a salicus. In the later manuscripts, with a few exceptions (DIJ 1, MIL 2), the two initial elements of the salicus have been reduced to one (this happens already in BIS 1). The resulting element was translated diastematically either as an E or as an F (an F is already implied in DEN 1). Comparison with the treatment of the upper note in the next syllable shows, however, that the translation of the salicus as a unison on F is neither restricted to, nor invariably followed by, those manuscripts which tend to raise the E to F. This suggests a different rationale for the presence of an F in each syllable. The microtonal character of the salicus may be an explanation for this divergence.

153 (230)

quæ

EEF

ALB, BEN 5, MIL 2

F

all the others

CHA 1, LAN, MUR 3 and most neumatic sources have a single note. A salicus is found in BEN 1. This is one of the cases showing a close relationship between the Gregorian chant traditions of Aquitaine and Benevento.

154 (231)

<u>æd</u> ificatur	FD	MIL 2
	FE	ALB, BEN 5, CLU 2, FRA 4, KLO 1, ROP, VAN 2, YRX
	DFE	CIS 14
	FE <sup>+</sup>	DIJ 1
	E	CHA 3, CLU 3, DEN 2, PAR 6, STA 1
	F	CAM 2, MET 1

The preceding note is a D, the next, an F. A torculus can be seen in BIS 1 and MUR 3, supporting the reading of CIS 14, while CHA 1 and LAN have a clivis, compatible with FE or FE<sup>+</sup>. A single note occurs already in ELI, DEN 1, ITI 1 and OTU 2, an apparent case of melodic simplification.

155 (232)

ut <u>civitas</u>	F G F	VAN 2
	F G EF	CLU 2, CLU 3, PAR 6, ROP
	F GF EF	CHA 3
	G F EF	CIS 14, FRA 4, FRA 5
	DF F FF	ITI 3, ZIG
	DFE F FF	KLO 1
	F F FF	STA 1
	F F E <sup>+</sup> E <sup>+</sup> F	DIJ 1

F	F	E E F	ALB, BEN 5, DEN 2,
			MIL 2, ROG 1, YRX
F	F	D F	CAM 2

The note preceding this passage is likely to have been a liquescent D, as in VAT. Over *civitas*, there seems to have been a choice between a pes (recorded in MUR 3; probably DF as in ITI 3 and ZIG), and a punctum (recorded in CHA 1 and LAN). The punctum must have originally been an F, the note retained by the large majority of sources. The G alternative, adopted by the Cistercians and the Franciscans, is already implied by the neumes in CAM 4; it allows the accented syllable to stand out; it is likely to have been the result of local melodic editing<sup>18</sup>. Over *civitas*, we probably have two juxtaposed non-diatonic phenomena: a chromaticism and a microtonalism. In the middle syllable, the hesitation between G and F in French sources is possibly due to the presence of an F sharp, suggested by the isolated oriscus which, in LAN, surmounts the syllable. CHA 1 already implies a unison, however, implying some variety in the transmission of this passage. Over *civitas*, CHA 1, LAN and MUR 3 unanimously have a salicus. Southern and West-Frankish sources tend to translate the first note as an E, while East-Frankish sources have an F.

156 (234)

confite <sup>u</sup> ndum (beg.)	D	ALB, BEN 5, DIJ 1,
		FRA 4, FRA 5, MIL 2,
		YRX

F	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, ITI 3, KLO 1, MET 1, PAR 6, ROG 1, ROP, STA 1, VAN 2, ZIG
---	--

The preceding note is a D, the next a G. The choice of starting note for the liquescence on *confitendum* separates Aquitaine, Benevento, Dijon and a few other places from most sources, whose F is supported by a *s[upra]* in LAN. The F allows the accented syllable to stand out more clearly and is quite understandable in view of the preceding recitation on F and of the ascending movement toward G. But precisely because D is the more ungraceful alternative, VAT may be right in choosing it.

157 (236)

<u>Domine</u>	F	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, PAR 6, ROP
	E	all the others

F seems to be a typically French variant. It fills the interval G-E, between the end of the preceding melisma and the beginning of the next torculus.



Intr. Deus, in nomine tuo (G. T., p. 116)

158 (237a)

<u>Deu</u> s	F G F	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, ITI 3, KLO 1, MET 1, PAR 6, ROP, VAN 2, ZIG
	E G F	DIJ 1, FRA 4, FRA 5, ROG 1
	E G E	ALB, BEN 5, MIL 2, YRX
	D F E <sup>+</sup>	STA 1

The initial E is supported by the *h[umiliter]* in LAN. The final E seems to be an Aquitanian/Beneventan variant, but since it leads to a repercussed F, it can also be seen as related to the Deuterus intonation formula E FFF. CLU 1 has a lacuna which took most of the introit antiphon, up to *exaudi*.

159 (237b)

<u>Deu</u> s	F F	ALB, BEN 5, DIJ 1, ITI 3, MIL 2, VAN 2, YRX
	F	KLO 1, ROG 1, STA 1

E F	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, FRA 4, FRA 5, MET 1, PAR 6, ROP
E	ZIG

The preceding note is an F or an E, depending on the manuscripts (see above). A unison is implied by CHA 1, LAN and MUR 3.

160 (238)

<u>i</u> n nomine	G	CAM 2, DEN 2, PAR 6
	D G (or D/)	CHA 3, CIS 14, CLU 2, CLU 3, FRA 4, FRA 5, ITI 3, ROP
	F G (or F/)	ALB, BEN 5, DIJ 1, KLO 1, MET 1, MIL 2, ROG 1, STA 1, VAN 2, YRX
	F	ZIG

The preceding note is an F, the following note a G. The second pitch is liquescent in LAN, MUR 3 and numerous diastematic MSS (e. g. CLU 2 or YRX). The G alone seems typical of Paris and Cambrai. A single note appears also in CAM 4.

161 (239)

tuo

G F

ROG 1

F G F

CHA 3, CIS 14, CLU 3,

FRA 4, KLO 1, PAR 6,

ROP, ZIG

F E<sup>+</sup>

DIJ 1

F G E

CAM 2

F F E

ALB, BEN 5, DEN 2,

ITI 3, LYO 3, MET 1,

MIL 2, VAN 2, YRX

E F E

CLU 2

F

STA 1

CHA 1, LAN and MUR 3 have a pressus major on *tu*o. Some manuscripts interpret the first two notes as being in unison (FFE), others make the neume equivalent to a torculus (EGE, FGE, FGF). Could this mean that the interval between the two first elements in the pressus is a displaced semitone or less than a semitone, and that the middle element (the oriscus) has chromatic or microtonal implications here, as is likely to have happened in other contexts?

162 (240)

salvum me

F A G

ALB, BEN 5, DEN 2,

DIJ 1, FRA 4, KLO 1,

MET 1, STA 1, VAN 2,

ZIG

F G F

CHA 3, ITI 3

EGF	CAM 2, CLU 2, MIL 2, PAR 6, ROP, YRX
EGFF	CIS 14, CLU 3
EGFFA	ROG 1, SAR 1

A simple torculus is found in CHA 1, LAN and MUR 3. Normandy (Rouen) and England (Salisbury, Lewes) appear together with a double F, which was also adopted by the Cistercians.

163 (241)

<u>fac</u>	F F	ITI 3, STA 1, VAN 2, ZIG
	FEF	KLO 1
	FE	CAM 2, CIS 14, PAR 6
	EEF	all the others

A salicus is found here in CHA 1, LAN and MUR 3, accounting for the E/F instability in the diastematic manuscripts.

164 (242)

<u>e t</u> in	DGE	MIL 2
	EGE	ALB, BEN 5, YRX
	DGF	FRA 4
	FGF	all the others

The preceding note is an F. See commentary below.

165 (243)

et in

E

ZIG

E' F

CAM 2, CHA 3, CIS 14,

CLU 2, CLU 3, DEN 2,

DIJ 1, FRA 4, ITI 3,

MET 1, PAR 6, ROG 1,

ROP, STA 1

F F

all the others

The last two points of variance should be considered together. The neumatic versions have a torculus followed by two virgæ. The first note of the torculus in LAN is marked *h[umiliter]* and in MUR 3, *i[nferius]*, implying therefore a low note relative to the preceding F (probably D). The top note of the torculus is marked in MUR 3 *l[evare]*, which accords with the relatively large interval of a fourth between D and the unanimously recorded middle note, G. Then, Benevento and Aquitaine have E, against all the other sources, which have F. But a large number of these also have E on the next syllable, *in*, against the testimony of the neumatic manuscripts, which call for an apparent unison. This could then be regarded as a case of redistribution of pitches during the transmission of the repertoire.

166 (244)

virtute tua

G F

ALB, BEN 5, DIJ 1,

MIL 2, ROG 1, YRX

FGF	CHA 3, CIS 14, FRA 4, ITI 3, KLO 1, LYO 3, , PAR 6, SAL 1
FGE	CAM 2, CLU 3, DEN 2, MET 1, ROP, STA 1, VAN 2, ZIG
EGE	CLU 2

CHA 1, LAN and MUR 3 have a torculus. MUR 3, with a *l[evare]* over the middle note and an *e[qualiter]* before the next neume, seems to imply a version not documented here, FAG.

167 (245)

iudic <u>a</u> (beg.)	A G F	CAM 2, CLU 2, CLU 3, DEN 2, PAR 6
	A F	all the others

The filling note G appears already in DEN 1, ITI 1 and TUR 3.

168 (246)

me: Deu <u>s</u>	A H	ALB, CLU 2, FRA 4, ITI 3, MIL 2, TOU, YRX
	A C	all the others

The next note is a (low) G. MUR 3 writes a *s[ursum]* over the top note of the pes, implying a high C (LAN has an equivalent sign

next to its uncinus). In the context of a descending movement, the C seems to have been pushed down to B natural in some manuscripts.

169 (248)

orat <u>i</u> onem	G A G	BEN 5, DIJ 1, FRA 4, ITI 3, KLO 1, VAN 2, ZIG
	A G	ALB, CHA 3, CLU 2, CLU 3, ROG 1, ROP, STA 1, YRX
	G A	CAM 2, CIS 14, DEN 2, MET 1, PAR 6
	D	MIL 2

The preceding note is an F, the next, an A. The torculus found in LAN and MUR 3 has been reduced either to a clivis or to a pes. This location coincides with Solesmes's point of variance nr. 22; the behavior of neumatic and other diastematic sources can be found in the respective table<sup>19</sup>. MIL 2 is listed there among the manuscripts with the AG reading. The AG notes are indeed found in MIL 2, but transferred to the next syllable, while *orationem* has a low D (see commentary on *orationem* below).

170 (249)

orati <u>o</u> nem	A C	F G	ROP, STA 1, VAN 2
	A G A H	F G	MIL 2
	A H A G F G A		DEN 2

A H	F G	ALB, CHA 3, YRX
A <u>B</u>	F G	BEN 5, ROG 1
A B	F G	DIJ 1, CLU 3
A A	F G	CIS 14, CLU 2, FRA 4, ITI 3, KLO 1, MET 1, PAR 6, SAR 1, ZIG

The second note was originally higher than the first: the position of the first isolated note relative to the following porrectus in CHA 1, LAN and MUR 3, or the torculus resupinus in ITI 1 and OTU 2, clearly imply it. That there was a problem with this note is obvious from the various versions encountered. The presence of C in three northern French manuscripts, and the alternative A in many more, suggests that B (flat), adopted by VAT, is just another solution for the problem posed by a primitive H, which would produce a melodic tritone with the third note, F (H is also implied by the behavior of the manuscripts over the next syllable). The version of St. Denis avoids the tritone by ornamenting the whole passage. This solution corresponds to the neumatic contour of ELI and DEN 1. The version of MIL 2 finds a possible explanation in the desire to reinforce by relative acuity the contrast with the preceding syllable, and at the same time give it more neumatic weight, thus making more evident the fact that it carries a verbal accent.



171 (250)

orationem

G A C G A G

CAM 2, CHA 3, CLU 2,  
CLU 3, KLO 1, MET 1,  
ROG 1, STA 1, VAN 2,  
ZIGG A B G A GALB, BEN 5, CIS 14,  
FRA 4, MIL 2, ROP,  
YRXG A B A G A G

DEN 2, PAR 6

A B G A G

ITI 3

G A B G A G

DIJ 1

Although the quality of the B could not be verified in most sources which have it, it is unlikely that a primitive B flat would have given rise to so many sources with a C. The absence of the A solution (if one compares this location with the preceding one, nr. 170) may be due to the fact that a H produces here no problematic interval. The extra, passing note (the A between B and G in the DEN 2/PAR 6 variant) is found not only in ELI, but also in DEN 1 and TUR 3.

Off. Exspectans (G. T., p. 328)

172 (251)

exspectavi

D DEDDE

ITI 3

D DFDDF

DIJ 1

D	DFDEF	ALB, BEN 5, CAM 2, CHA 3, FRA 4, KLO 1, MIL 2, STA 1, VAN 2, YRX
E	EGEFG	CIS 14, CLU 2, CLU 3, DEN 2, PAR 6, ROG 1
E	E.....	ROP

ROP is largely illegible on *expectavi*, but it seems to have had a version equivalent to E G E F G. Although almost every source agrees that this passage encompasses a minor third between the first, second and fourth notes and the third and last notes, there is disagreement about the penultimate melodic interval, and consequently also about the last. Most sources have a tone between D and E, but Cluny and a significant number of northern French manuscripts have a semitone between E and F, and two other manuscripts prefer an unison, D D. A possible explanation is the occurrence of a displaced chromatic interval, between D and E flat. In this context, the choice of an oriscus to represent the penultimate note in CHA 1, LAN and MUR 3 could be significant, for it would warn the singer to raise his voice only slightly, by an intermediary step. The presence of an E flat in the present location is confirmed by the fact that DFD EbF is a transposition of the standard melodic gesture ACA BC, found in at least five other pieces and identified as an intonation formula by Chilianus Szigeti in his 1942 dissertation<sup>20</sup>.

173 (253)

<u>h y m n u m</u>	H	ALB
	D	CHA 3, PAR 6
	C	all the others

The note over h y m n u m is preceded by DC and followed by a repercussed C. The reading of ALB finds no support in the neumatic sources.

Off. Benedicite gentes (G. T., p. 231)

174 (254)

<u>Dominum</u>	CEGF	ALB, BEN 5, DIJ 1, FRA 4, MIL 2, STA 1, VAN 2
	CFGF	ITI 3
	DFGF	CAM 2, CHA 3, CIS 14, CLU 2, CLU 3, DEN 2, KLO 1, PAR 6, ROG 1, ROP, YRX, ZIG

The incipit, over *Benedicite gentes*, establishes a strong modal framework A-C, with an upper auxiliary note D particularly evident at the end (long clivis D-C). Then comes *Dominum*, starting a phrase dominated by the minor third D-F. MUR 3 has *s[ursum]* next to the first note of this new phrase, implying a note higher than C, plausibly a D. The manuscript tradition is however divided on this point. D is mainly found in French sources, but is also shared by an Aquitanian

and two Germanic manuscripts. C is given by sources from equally varied geographical origins. Both alternatives had therefore a wide circulation. The C start (adopted by VAT) is, in a sense, easier, because in the preceding passage C is much stronger a note than D. The C-E-G arpeggio used for an internal reintonation has moreover Gallican associations, which does not happen with D-F-G. These facts, taken together with the testimony of MUR 3, suggests that the DFGF variant, adopted by most sources including the Cluniac ones, is the original one.

175 (256)

vocem (beg.)      D

CHA 3, DEN 2, PAR 6,  
ROP

C

all the others

The preceding note is an E, the next, an F. The original C was pushed up to D in some places, because the shorter the intervallic distance, the easier to sing.

176 (258)

am ovit      DEC

ALB, CLU 2, CLU 3,  
ITI 3, LYO 3, TOU,  
YRX

DFC

BEN 5, CAM 2, CHA 3,  
 CIS 14, DEN 2, DIJ 1,  
 FRA 4, KLO 1, PAR 6,  
 ROG 1, ROP, STA 1,  
 VAN 2

LAN has f[*astigium*] and MUR 3, s[*ursum*], over the top note of the torculus, which therefore corresponds rather to an F than to an E. VAT is thus very likely wrong in its preference for the lower alternative. Cluny shares its E with Aquitaine and Lyons, but the tendency to lower the top note is not particular to a region, as ITI 3 indicates.

Off. *Populum humilem* (G. T., p. 302)

177 (260)

facie s

CCC A B G F G

CLU 3

CCC A B G F G

ALB, CLU 2, LYO 3,  
 YRX

CCC A C G F G

BEN 5, CHA 3, CIS 14,  
 DEN 2, DIJ 1, FRA 4,  
 ITI 3, KLO 1, MIL 2,  
 PAR 6, ROP, STA 1,  
 TOU, VAN 2

Cluny sides with Lyons and part of Aquitaine, following the same tendency referred to immediately above (commentary to point of variance nr. 176).

Off. Factus est Dominus (G. T., p. 119)

178 (265/266)

<u>e</u> um	AD EFGF	CIS 14, DIJ 1, SAR 1
(middle of 2nd part)		
	GD EFGF	ALB, MIL 2, ROG 1, YRX
	GD FFGF	CLU 2, CLU 3, DEN 2, ZIG
	FD EFGF	BEN 5, KLO 1
	FD FFGF	CAM 2, CHA 3, FRA 4, PAR 6, ROP, STA 1, VAN 2
	ED EFGF	ITI 3

The EF ascending movement is supported by BEN 1, CHA 1, ELI, LAN and MUR 3. The F unison appears already in CLU 1, DEN 1, EPT, ITI 1 and LYO 1. This melodic evolution is due to the fact that on D, there is a hold, and the following E is not really a passing note to F, but rather (according to the *a[ugere]* in LAN) a sustained note leading to G; the ascending movement attracts the E to a unison with the F immediately above.

Intr. Iudica me Deus (G. T., p. 120)

179 (267)

<u>I</u> udica	D F E	CHA 3, CLU 2, DEN 2, PAR 6, ROP
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EGE	ALB, BEN 5, MIL 2, YRX
EGF	DIJ 1, FRA 4
FGF	CAM 2, CIS 14, CLU 3, ITI 3, KLO 1, STA 1, VAN 2

MUR 3 has *l[evare]* over the upper note of the torculus, implying a relatively wide initial interval. The first variant D F E, shared by CLU 2 and a few northern French sources, is related to the special torculus in CLU 1. Additional information on this incipit can be found in Robert Haller's dissertation<sup>21</sup>.

Grad. Eripe me (G. T., p. 121)

180 (268)

<u>E</u> ripe (beg.)	DFFFF	CHA 3
	E FFF	ALB, BEN 5, BRC, ITI 3, MIL 2, YRX
	F FFF	all the others

The semitonal attack is supported by BEN 1, CHA 1, GAL 1 and LAN. This typical Deuterus formula was commented upon above (see point of variance nr. 48).

Off. Benedictus es ... et non tradas (G. T., p. 131)

181 (269)

trad <u>a</u> s	H H H H H	BEN 5, TOU
<u>calumniantibus</u>		
	H C C C C	ALB, MIL 2, YRX
	C C C C C	all the others

BEN 1, CHA 1, LAN and MUR 3 imply H up to *calumniantibus* (first layer of MUR 3), *calumniantibus* ([*evare*] in MUR 3 over the following syllable, possibly CHA 1) or *calumniantibus* (BEN 1, LAN, possibly CHA 1). The alternative suggested by the significative letter in MUR 3 highlights the verbal accent of the word, but is not found in any of the diastematic manuscripts consulted, nor seems to have been a widespread solution among the neumatic ones; it may be suspected to be the fruit of a text-conscious revision, not a very effective one taking into account that in this passage the melic and rhythmic weight is reserved for the penultimate syllable, *calumniantibus*.

Tr. Deus, Deus meus (G. T., p. 144), V/.Ad te clamaverunt

182 (270)

et <u>n</u> on sunt	F G F F	CHA 3, DEN 2, FRA 5, KLO 1, LYO 3, VAN 2, ZIG
	F G F F E	CLU 2, CLU 3, ITI 3



F G E E\	ALB, DIJ 1, MIL 2, ROG 1, ROP, SAR 1, YRX
C	CAM 2, CIS 14, PAR 6

The liquescence is optional; some manuscripts leave it out (DEN 2), others identify the liquescent note (DIJ 1) or write down a normal note, which is always a C (CHA 3, CLU 2, CLU 3). DIJ 1, before the correction made by the copyist of the neumes known as Q, had FGF FC. The hesitation between E and F may have to do with the fact that the fourth note is an oriscus in CHA 1, GAL 1 and LAN. The last note, C, is all that remains of the passage in some sources: this drastic simplification can already be observed in CAM 4 and BIS 1, which have a single high note over the preceding syllable, and a single low note for *non*. These neumatic sources keep the torculus (D E D) over *sunt* (as if the whole passage *-runt et non sunt* had been compressed to correspond to the formula normally sung with *non sunt*) but CAM 2 has a D F pes, and both CIS 14 and PAR 6, a single D note. The Cluniac version is prefigured in CLU 1 and ITI 1.

Tr. Deus, Deus meus (G. T., p. 144), V/. Annuntiabitur

183 (271)

iust <u>i</u> tiam	F G F F C	CAM 2, CHA 3, CIS 14, FRA 4, ITI 3, KLO 1, LYO 3, ROP, STA 1, VAN 2, ZIG
	F G F F E C	CLU 2, CLU 3, PAR 6

F F E D C	DEN 2
F G E E C	ALB, BEN 5, DIJ 1,
	MIL 2, ROG 1, SAR 1,
	YRX

This case is similar to the preceding. The fourth and fifth notes form a pressus in CHA 1, GAL 1 and LAN. The Cluniac version is already prefigured by CLU 1, ITI 1 and TUR 3. PAR 6 fuses the two Fs; its particular reading corresponds to the neumes in DEN 1. CAM 2 and FRA 4 also have a single F.

Tr. Deus, Deus meus (G. T., p. 144), V/. Populo

184 (272)

quem <u>f</u> ecit	F G F F C	CHA 3, FRA 4, ITI 3,
		KLO 1, ROP, STA 1,
		VAN 2
	F G F F E C	CLU 2, CLU 3, PAR 6
	G F F E C	CIS 14, ROG 1
	G F F E D C	DIJ 1, SAR 1
	F F E D C	DEN 2
	F G E E C	ALB, BEN 5, MIL 2,
		YRX

This case is similar to the above. The last two notes form a pressus in CHA 1, GAL 1 and LAN. CAM 2 and LYO 3 do not have this verse.

## DOMINICA PASCHA

Intr. Resurrexi (G. T., p. 196)

185 (273)

tecum

GF

CHA 3, CIS 14, DEN 2,

LYO 3, ROG 1, YRX

G F\

BRC

F F\

MIL 2

FF

BEC, CAM 2, CLU 2,

CLU 3, DIJ 1, FRA 4,

KLO 1, MET 2, PAR 6,

ROP, SAR 1, STA 1,

VAN 2

FE

ALB, BEN 5, NAR

FED

TOU

The preceding note is a G, the next one, an E. The position of the neumes in BEN 1, CHA 1 and LAN and the juxtaposition of virga and punctum in CLU 1, DEN 1 and MUR 3 suggest that the first note is at the same level as the preceding, and indicate that the second note is lower than the first. The descending movement may have contributed to push down GF (adopted by VAT) to FF or to FE.

186 (274a)

posuisti

FGF

BEC, CAM 2, CHA 3,  
 CIS 14, CLU 2, CLU 3,  
 DEN 2, FRA 4, KLO 1,  
 MET 2, PAR 6, ROP,  
 ROG 1, STA 1, YRX

FGE

LYO 3, NAR

EGF

DIJ 1

EGE

ALB, BEN 5, BRC, MIL  
 2, TOU

The E start is supported by MUR 3 (*e[qualiter]* before the first  
 note, *s[ursum]* over the second).

187 (274b)

posuisti

FE FGA

MET 2

FF EFGA

KLO 1, STA 1, VAN 2

FF FGA

ALB, BEN 5, CLU 2,  
 DIJ 1, MIL 2, ROG 1,  
 TOU

FF GA

LYO 3, NAR, YRX

EF GA

BEC, CAM 2, CHA 3,  
 CIS 14, CLU 3, DEN 2,  
 PAR 6, ROP

All the neumatic sources consulted have two virgæ and a three-note quilisma over *posuisti*, except CAM 4 and CLU 1, which have two pedes.

188 (275)

*posuisti*

A G

ALB, BEN 5, DIJ 1,

MIL 2, NAR, YRX

G A G

all the others

Alone among the earliest manuscripts, BEN 1 and DIJ 1 have a clivis instead of a torculus.

189 (276)

*tuam*

E

ALB, BEN 5, BRC, CIS

14, CLU 2, FRA 4,

ROG 1, TOU, YRX

F

BEC, CAM 2, CHA 3,

CLU 3, DEN 2, DIJ 1,

KLO 1, LYO 3, MET 2,

NAR, PAR 6, ROP,

STA 1, VAN 2

Preceding note: E. Following note: F. The placement of the neumes in CHA 1 and LAN and the tractulus in MUR 3 support the E version. An F is implied by the virga in BIS 1.

190 (277)

mirabilis

E E

ALB, BEN 5, BRC,

MIL 2, TOU

F F

all the others

BEN 1 (oblique punctum, punctum), CHA 1/LAN (graphic distribution of neumes) and MUR 3 (use of the tractulus) support the E version. The preceding syllable ends with an oriscus in all these neumatic MSS.

Grad. Hæc dies (G. T., p. 196), V/. Confitemini

191 (278)

fecit (beg.)

F E

MET 2

E F

CHA 3, CLU 2, CLU 3,

DEN 2, KLO 1, LYO 3,

PAR 6

F F

ALB, BEC, BEN 5, DIJ 1,

FRA 4, MIL 2, NAR,

ROP, SAR 1, STA 1,

TOU, VAN 2, YRX

All the neumatic sources examined, except CAM 4, CLU 1, LYO 1 and OTU 2, have an unison (ITI 1 included). The Franciscan manuscripts and Salisbury fuse the Fs. Over the preceding syllable, two long Fs are sung.

192 (279)

fecit (mid.)

G A E F

BEC, CHA 3, CLU 2,  
DEN 2, DIJ 1, KLO 1,  
NAR, ROP

G A F F

ALB, BEN 5, BRC,  
CAM 2, CIS 14, CLU 3,  
FRA 4, LYO 3, MET 2,  
MIL 2, PAR 6, ROG 1,  
SAR 1, STA 1, TOU,  
VAN 2, YRX

Although the F unison seems to be the more widespread alternative, MUR 3 and GAL 2 have a torculus resupinus, which seems to support the semitonal approach, GAEF. The context (preceding recitation on F, following descent to A) allows us to identify this passage as a formulaic gesture equivalent to that found in location 136, discussed at the end of this section.

193 (280)

misericordia

D F F F

ROG 1

D F E D F

BEC, CAM 2, DEN 2,  
KLO 1, LYO 3, MET 2,  
ROP, STA 1, VAN 2

D F E D E

ALB, BEN 5, BRC, CHA 3,  
CIS 14, CLU 2, CLU 3,  
DIJ 1, FRA 4, MIL 2,  
NAR, TOU, YRX

LAN, with *n[ectum]* over the last note, supports the E version.

Off. Terra tremuit (G. T., p. 199)

194 (281)

<u>Terr</u> a (end)	E	ALB, BEN 5, TOU, YRX
	F	all the others

Against twenty sources from all regions with an F, MUR 3 has an *e[qualiter]* between the last note of Terra and the next, which is everywhere an E.

Com. Pascha nostrum (G. T., p. 199)

195 (283)

<u>Pasc</u> ha (beg.)	E	ALB, BEN 5, BRC, DIJ 1, MIL 2, TOU
	F	all the others

BEN 1, CHA 1, LAN and MUR 3 support the E version through either graphic location or the use of a virga on *Pas*-, followed by tractulus or punctum.

196 (284)

<u>ep</u> ulemur	F E <sup>+</sup> F	DIJ 1, STA 1
	F E F	ALB, BEN 5, CAM 2, CIS 14, CLU 3, MIL 2, PAR 6, TOU



F D F

BEC, BRC, CHA 3, CLU 2,  
 DEN 2, FRA 4, KLO 1,  
 LYO 3, MET 2, NAR,  
 ROG 1, ROP, VAN 2,  
 YRX, ZIG

CHA 1, LAN and MUR 3 all have a *s[ursum]* below the middle note of the porrectus, implying a relatively high note. The only other time MUR 3 has, in this piece, a *s[ursum]* next to a low note of a neume is over *Christus*, the only other place where DIJ 1 also has a microtone.

Intr. Introduxit vos (G. T., p. 200)

197 (285)

Domini

H

ALB, TOU

C

all the others

The preceding notes are CH, and a lightly repercussed C follows. CHA 1 and LAN, by placing this pitch on the same horizontal axis of the following repercussion, and MUR 3, by its use of a virga, imply a C in this location. MIL 2 and YRX also have a C, in contrast with the other MSS of Aquitanian tradition, ALB and TOU.

Grad. Hæc dies, V/. Dicat

198 (286a)

Isræl (beg.)

DC DF FDC

LYO 3

DC DE FDC	BEC, BEN 5, CAM 2, CHA 3, CIS 14, CLU 3, DEN 2, DIJ 2, PAR 6, ROG 1, ROP, STA 1, VAN 2, YRX, ZIG
DC DE FEC	ALB, CLU 2, FRA 4, MIL 2, NAR, TOU
DC DEFEDC	KLO 1

See commentary below.

199 (286b)

Isr æl (end)	DEDE	ALB, BEC, CAM 2, CHA 3, CIS 14, DEN 2, DIJ 2, FRA 4, KLO 1, PAR 6, ROP, VAN 2, ZIG
	DEDF	STA 1
	DFDF	BEN 5, CLU 2, CLU 3, LYO 3, MIL 2, NAR, TOU, YRX

Due to a lacuna, ROG 1 could not be taken into account in location 199. Some manuscripts repeat the preceding C note before the initial D. In location 198, some southern sources, especially Aquitanian ones, diverge from the rest. In the present point of variance (199), Benevento, Lyons and most of Aquitaine share a

version which is also adopted by Cluny; since it needs more vocal energy than the alternative version (adopted by VAT) and is presented by sources which do not tend to raise the E to F like BEN 5 and TOU, it may well be the original one.

Off. Angelus Domini (G. T., p. 217)

200 (287)

desc <u>e</u> ndit (mid.)	C D F F	ALB, BRC, CAM 2, CIS 14, CLU 3, DIJ 1, MIL 2, NAR, ROG 1, STA 1, YRX
	C D E F	BEC, CHA 3, CLU 2, DEN 2, FRA 4, KLO 1, LYO 3, PAR 6, ROP, VAN 2, ZIG

All the neumatic manuscripts consulted (including CLU 1 and ITI 1) support the double F, with the possible exception of DEN 1 (two virgæ, but the second is placed higher).

201 (288)

mul <u>i</u> eribus,	G H H G	ALB, BEN 5, BRC,
mulie <u>r</u> ibus (beg.)		DIJ 1, MIL 2, YRX
	A H H G	FRA 4

A C H G

BEC, CAM 2, CHA 3,  
CIS 14, CLU 2, CLU 3,  
DEN 2, PAR 6, ROG 1,  
ROP

A C C G

KLO 1, LYO 3, STA 1,  
VAN 2, ZIG

The preceding note is a G. An *e[qualiter]* preceding the pes in MUR 3 supports the G beginning. The ascending thrust pushed it to the upper degree, A. The top note, H, was then attracted to the C above, as seen in the Cluniac and northern French sources, followed by VAT. The same eventually happened to the second H, especially in East-Frankish territory. At the continuation of the melisma on *mulieribus*, C serves as a tonal axis.

202 (289)

sicut

C\

BRC, MIL 2

G C

BEN 5, DIJ 1, KLO 1,  
STA 1, VAN 2

A C

ALB, BEC, CAM 2,  
CHA 3, CIS 14, CLU 2,  
CLU 3, DEN 2, FRA 4,  
PAR 6, ROG 1, YRX,  
ZIG

The preceding note is a G. An *e[qualiter]* in MUR 3 supports the G beginning. Both LAN and MUR 3 have a liquescence after the second note.

Intr. Aqua sapientiæ (G. T., p. 202)

203 (291)

sap <i>ient</i> iæ	C D C	BEC, DEN 2, KLO 1, PAR 6, ROP, STA 1, VAN 2
	C C	CHA 3
	C D H	ALB, CAM 2, CIS 14, DIJ 1, ROG 1, YRX
	C D A	BEN 5, CLU 2, CLU 3, FRA 4, MIL 2, NAR, TOU
	CDCA	LYO 3

The preceding note is a D, and the following, a C. VAT has the A ending. This could be seen as a regional variant shared by Cluny, Lyons, and some Aquitanian and Italian sources, but the alternative H ending in ALB and DIJ 1, possibly inspired by the CDHC formula discussed above, is easier, and lacks the descending resolution which, as will be seen at the end of this section, would give credit to its authenticity.

Intr. Venite benedicti (G. T., p. 205)

204 (294)

<u>a</u> <u>b</u> <u>o</u> rigine	D F	CIS 14, CLU 2, CLU 3, DEN 2, DIJ 1, FRA 4, KLO 1, NAR, ROG 1, ROP, STA 1, VAN 2, YRX
	D E	BEN 5, TOU
	D D	CHA 3
	C D F	CAM 2, PAR 6
	C D	ALB, MIL 2

The preceding note is a B natural. CHA 1, LAN and MUR 3 (the latter with *l[evare]* on *ab* and on *or*) support the version on top. The versions which have a single lower note for origine allow the verbal accent on the following syllable to be highlighted by repercussed Fs. This kind of change, being shared by Benevento and a number of Aquitanian sources, could go back to the ninth century.

205 (295)

(last) <u>all</u> <u>e</u> luia (mid.)	DECC	CAM 2, PAR 6, SAR 1
	CDCD	ALB, BEN 5, CLU 2, CLU 3, DEN 2, DIJ 1, KLO 1, MIL 2, NAR, ROG 1, STA 1, VAN 2, YRX, ZIG

CDHC

BEC, CHA 3, CIS 14,

ROP

CD C

FRA 4

The preceding note is a long high D. Singing ED instead of the initial CD notes, as in Paris, Salisbury and Cambrai, would add some bravado to the piece. FRA 4, PAR 6 and SAR 1 add a B natural to the following descending passage, which normally goes directly to A: the whole being D CD CD AG. The upper notes are quick, while A and G are long, which means that the overall melodic movement aims down. The attraction of the low notes may be behind the CDHC version, adopted by VAT, which reproduces a formula which we have already encountered before (see location 136).

Off. Portas cæli (G. T., p. 207)

206 (298)

cæli

G C A G A

KLO 1, STA 1, ZIG

G H A G A

ALB, BEC, BEN 5,

CHA 3, CLU 2, DIJ 1,

LYO 3, MIL 2, PAR 6,

ROG 1, ROP, YRX

G A H A G A

CAM 2

G B A G A

CIS 14, CLU 3, DEN 2,

FRA 4, VAN 2

207 (299b)

mann a

H H C

ALB, BEN 5, MIL 2,  
ROG 1H<sup>+</sup>H<sup>+</sup>C

DIJ 1

C H C

CHA 3

C \

FRA 4

C C C

BEC, CAM 2, CIS 14,  
CLU 2, CLU 3, DEN 2,  
KLO 1, LYO 3, NAR,  
PAR 6, ROP, VAN 2,  
YRX, ZIG

This location corresponds to a salicus in the earliest neumatic manuscripts. CAM 4, CLU 1 and DEN 1 already imply a repercussed sound (unison). The tendency to present a repercussed C is shared here by manuscripts, like YRX, which normally do not raise the B natural to C — a likely consequence of the problematic tonal character of the salicus.

Com. Christus resurgens (G. T., p. 207)

208 (300a)

Christus

G H

ALB, MIL 2, TOU,  
YRX

G C

BEN 5

A C

CHA 3, CLU 2, CLU 3,  
DEN 2, LYO 3

H C

BEC, NAR, ROP



CC	DIJ 1, ROG 1, STA 1
C	CIS 14, PAR 6, VAN 2, ZIG

Almost every neumatic source consulted (BEN 1, BIS 1, CHA 1, CLU 1, DEN 1, EPT, LAN, LYO 1 and MUR 3) has a pes on this location, with the exception of CAM 4 (a punctum). CAM 2 has a very particular version of the melody (starting EF, E), which does not correspond to CAM 4. MUR 3 has *i[inferius]* below the first note, *s[ursum]* over the second, and *e[qualiter]* between this neume and the next, implying GH, GC or (less likely) AC.

209 (300b)

Christ <u>u</u> s	H' C	ALB, CIS 14, CLU 3, MIL 2, NAR, ROG 1, ROP, TOU, YRX
	H <sup>+</sup> H <sup>+</sup> C	DIJ 1
	C H C	CHA 3
	C' C	CLU 2, DEN 2, FRA 4, LYO 3, PAR 6, STA 1, VAN 2, ZIG
	C D	BEN 5

This location corresponds to a salicus in the earliest manuscripts. BIS 1 substitutes a pes for it. CAM 4 has three puncta, DEN 1, two virgæ. In FRA 4, LYO 3 and VAN 2 all that remains is a single C.

## 210 (301a)

resurg <u>e</u> ns <u>a</u>	C C	ALB, CHA 3, LYO 3, NAR, YRX
	C H	TOU
	C B	VAN 2
	C' A	CLU 2, CLU 3, DEN 2, ROP, STA 1, ZIG
	C G	KLO 1
	H H	BEN 5, MIL 2, PAR 6
	H A	CIS 14, DIJ 1, ROG 1

The preceding note is a C (with or without upper liquescence), and the next, as least as high as H, leading to C. BIS 1, EPT, LAN and MUR 3 call for a descending movement; MUR 3 reinforces it with an *i[inferius]* on a, followed by a *s[ursum]* next to the following note: the version C A fits perfectly. BEN 1 implies, however, a unison, which would be more economical. The atypical pattern of variance in this location may relate to the modal ambiguity of the piece (see Chapter 3, section 3.2).

## 211 (301b)

<u>m</u> o <u>r</u> tuis	H A H	CHA 3
	H A C	PAR 6
	A B	VAN 2

H H C	ALB, BEN 5, CIS 14, CLU 2, CLU 3, DIJ 1, FRA 4, LYO 3, MIL 2, NAR, ROG 1, STA 1, YRX, ZIG
C H C	KLO 1, ROP, TOU
C C	DEN 2

This location corresponds to a salicus in the earliest manuscripts. BIS 1 has a scandicus, CAM 4 and EPT a pes, DEN 1 two virgæ. The second H is often dropped in the diastematic sources. VAN 2 transposes down by a whole tone this and the following passage.

212 (302)

<u>iam non moritur</u>	H H HA CC	STA 1
	H H HA HC	ALB, BEN 5, CIS 14, DEN 2, DIJ 1, FRA 4, KLO 1, YRX
	H H HA H	BEC, PAR 6, ROP
	A A AG AC	VAN 2
	A A AG AB	CLU 2, CLU 3
	A A AG GA	CHA 3

The diversity here relates to strategies meant to reduce the modal ambiguity of the piece. The preceding internal cadence on *mortuis* normally falls on G; but sources like CHA 3, CLU 2/CLU 3 and VAN 2 make it go down to F. The transposition is afterwards

maintained. The penultimate note is an oriscus in CHA 1 and MUR 3 (pes quassus) but a normal, long note in LAN.

## 213 (303)

(last) <u>al</u> leluia	A C H A	ALB, BEN 5, DIJ 1, FRA 4, KLO 1, ROG 1, STA 1, VAN 2, ZIG
	A G A H	BEC, CIS 14, CLU 2, CLU 3, LYO 3, NAR, PAR 6, ROP, YRX
	G F G A	CHA 3

Among the neumatic manuscripts, the climacus variant C H A is found in BEN 1, CHA 1, LAN and MUR 3, while the scandicus alternative (G A H or F G A) is shared by BIS 1, CLU 1, DEN 1, EPT and LYO 1. The latter is apparently typical of, but not restricted to, a central geographical strip in the Carolingian Empire.

Intr. Victricem (G. T., p. 208)

## 214 (304)

<u>Victricem</u>	G GH H	BEN 5, DIJ 1, TOU, YRX
	G AH H	BEC, FRA 4, MIL 2, ROG 1, ROP
	G GC C	NAR

G A C C

ALB, CAM 2, CHA 3,  
 CIS 14, CLU 2, CLU 3,  
 DEN 2, KLO 1, LYO 3,  
 PAR 6, SAR 1, STA 1,  
 VAN 2

MUR 3 supports the G G H H version with an *e[qualiter]* before the pes, a *s[ursum]* above it and another *e[qualiter]* following it. The historical evolution mirrored by the above variants can be interpreted as follows: the second note first tends to occupy a higher position, and eventually the archaic H reciting tone is replaced by C, which dominates the remaining of the piece.

Intr. Eduxit eos (G. T., p. 211)

215 (307)

eorum

B A B A G A

CAM 2, DEN 2, PAR 6

B A A G A

all the others

The extra note (the second B in the minority variant) is found also in CAM 4 and DEN 1.

Co. Data est mihi (G. T., p. 213)

216 (309)

calo

G A C A

KLO 1, STA 1, ZIG

G A H' A

ALB, BEC, BEN 5, CHA 3,  
 CLU 2, CLU 3, DEN 2,  
 DIJ 1, MIL 2, PAR 6,  
 ROG 1, ROP, VAN 2,  
 YRX

G A B A

FRA 4, FRA 5

G A

CAM 2

A

CIS 14

Both CAM 2 and CIS 14 present modified versions of the melody, in transposition. CAM 4 does not relate to the version in CAM 2. The duplication of the top note in PAR 6 (H') probably mirrors a rhythmic tradition (cf. the *a[ugere]* in LAN).

Intr. Eduxit Dominus (G. T., p. 214)

217 (310a)

electos

DC

BEC, DEN 2, PAR 6,  
 ROP, VAN 2

D A

CHA 3

CC

ALB, YRX, ZIG

CHC

CAM 2

CH

BEN 5, CLU 2, CLU 3,  
 FRA 4, FRA 5, KLO 1,  
 MIL 2, ROG 1, STA 1

'CA

CIS 14

HH

NAR

The preceding note is a D; for the next, see below.

218 (310b)

s uos

CDCC

ZIG

CDCH

ALB, BEC, CLU 2, DEN 2,

KLO 1, MIL 2, ROG 1,

ROP, STA 1, VAN 2,

YRX

CDCA

FRA 4, FRA 5, PAR 6

CHAH

NAR

HDCH

BEN 5, CIS 14

HCDCH

CLU 3

ADCH

CHA 3

AHAG

CAM 2

MUR 3, with an *e[qualiter]* between *electos* and *suos*, seems to support the version in BEN 5, adopted by VAT; the preference for C in most MSS is possibly due to the attraction of the upper note. Contrary to most sources, both CAM 2 and PAR 6 aim at a low G at *suos*, while the Franciscans have an A (the original melody most probably had a B natural, raised to C in a few Eastern and French manuscripts).

## DOMINICA XI (vel XII vel XIII) POST PENTECOSTEN

Grad. Benedicam Dominum (G. T., p. 316)

219 (313)

meo (end)	A C A	KLO 1, STA 1, VAN 2, ZIG
	A H A	ALB, BEC, BEN 2, CHA 3, CLU 2, CLU 3, DEN 2, DIJ 1, ITI 3, NAR, PAR 6, ROP, SAR 1, YRX
	A C A H A A G	CIS 14
	C A H A A G	MIL 2
	D C C A	CAM 2
	A	FRA 4

The Eastern sources raise the B natural to C. The ornamented versions in CIS 14 and MIL 2 are not so rare a phenomenon as they seem, for CAM 4 also presents at the end of the respond an expanded melisma. CIS 14 and MIL 2 have this melisma (the fourth) revised to reproduce the end of the initial melisma of the respond, on *Dominum*, and give a sense of modal closure symmetrical to that provided by the end of the verse, on *lætentur*.



220 (314)

<u>m ea</u> (beg.)	FD F FDC	all except
	DFD F DC	CAM 2
	FD FEFDC	CHA 3, CLU 2, DEN 2
	FD EFDC	KLO 1, ZIG

GAL 1 writes a clivis followed by a trigon subbipunctis (hypothetically equivalent to F D E+F D C).

221 (315)

<u>mea</u> (beg.)	FF FED EC	ALB, ITI 3, NAR, YRX, ZIG
	FF FED FC	all the others

This melisma aims at a low B natural. The low note of the problematic clivis (E C or F C) has a *i[nferius]* (in GAL 1) and a *h[umiliter]* (in LAN) next to it, which suggests a relatively wide interval, probably F C. The lack of geographical logic in the E variant suggests that a general tendency is operating here: the energy needed to go up tends to subside in view of the low ending.

Com. De fructu (G. T., p. 329)

222 (316)

tuor <u>u m</u> <u>Domine</u>	A A G	CAM 2
	AG A G	DIJ 1, ROG 1, SAR 1
	G A G	CHA 3
	GA A G	BEC, ROP
	GF G F	all the others

There is a cephalicus over *rum* in LAN and MUR 3. The Sarum tradition is here clearly aligned with Rouen (as in locations 76 and 162) and the Normandy-related Dijon Tonary (as in location 178), but in Keith A. Fleming's comparative transcriptions of this communion, the transposition is also found at St. Martial of Limoges<sup>22</sup>. BEC coincides with ROP, as always happens in those points of variance which are common to both sources and where ROP has a rare or seemingly unique version.

223 (317)

panis

DCD

BEC, CHA 3, FRA 4,  
ITI 3, KLO 1, NAR,  
ROP, STA 1, VAN 2,  
ZIG

DCDED

ALB, BEN 2, BRC, CLU 2,  
CLU 3, DEN 2, DIJ 1,  
MIL 2, PAR 6, ROG 1,  
SAR 1, YRX

CHCDC

CAM 2

The simple porrectus (corresponding to D C D) is found in BIS 1, CHA 1, EPT, LAN and MUR 3, while the clivis+torculus version (D C D E D or C H C D C) is shared by CAM 4, CLU 1, DEN 1, ITI 1 and OTU 2. ITI 3 transposes the last section of the piece, including this passage, a major second up. CIS 14 would read, in transposition, C D C D Eb D. For additional data, see Keith A. Fleming's dissertation.

Intr. Respice, Domine (G. T., p. 319)

224 (318)

t u a m

C A C G

A H C A

A H C G

A C C G

A H A

A C A

CAM 2, PAR 6

ALB, BEN 2, CLU 2,

CLU 3, DIJ 1, FRA 4,

ITI 3, KLO 1, ROG 1,

SAR 1, STA 1, VAN 2

MIL 2, YRX

BEC, CIS 14, ROP

DEN 2

CHA 3

The preceding note is a C; the following, A or G. The second note was originally a quilisma. DEN 1 does not have it any more; CAM 4 writes it as the second note of a pes. CAM 2 fails once more to follow CAM 4. ROP compresses the two Cs found in BEC onto one; CIS 14 has only one C as well.

Intr. Protector noster (G. T., p. 323)

225 (319)

et respice

E F G A G

F E F G A G

E F G A A

ALB, BEC, CIS 14,

FRA 4, ITI 3, KLO 1,

NAR, ROG 1, ROP, SAR

1, STA 1, VAN 2, YRX

CHA 3, PAR 6

CAM 2

E F G A G A

BEN 2, BRC, CLU 2,  
CLU 3, DEN 2, DIJ 1,  
MIL 2, TOU

BIS 1, CAM 4, CHA 1, LAN, MUR 3 and OTU 2 have a punctum over *respice*, while CLU 1, DEN 1, ELI, ITI 1 and LYO 1 have a pes. CHA 3 and PAR 6 concentrate all the neumatic weight on the accented syllable, by giving *et* a single F and transferring its pes to *respice*, which as a result has four notes.

226 (320a)

dies una

F A AHCHAGA AG

ALB, BEN 2, CLU 2,  
CLU 3, MIL 2, TOU,  
YRX

F G GAHAGA AG

CIS 14, DIJ 1, ROG 1

F G GAHAGFG GF

CAM 2, BEC, DEN 2,  
KLO 1, LYO 3, NAR,  
ROP, STA 1, VAN 2

Cluny follows Aquitaine (and Benevento), but not Lyons. The Cistercian version coincides with Rouen (and also the Dijon of William of Volpiano). The F ending is supported by the *l[evate]* which in MUR 3 follows this passage (the next note is an A). CAM 2, DEN 2 and LYO 3 lose the quilismatic note (the first A of the last variant). VAT and the Graduale Lagal adopt the southern and Cluniac variant, starting F A AHC.

227 (320b)

tuis

E F E D E    E D

ALB, BEN 2, CLU 2,  
CLU 3, FRA 4, MIL 2,  
TOU, YRX

F F E D E    E D

DIJ 1

F E F E D E    E D

CAM 2

D F D C D    D C

STA 1

D F E D C D    D C

DEN 2

D E F E D C D    D C

BEC, CHA 3, CIS 14,  
KLO 1, PAR 6, ROP,  
VAN 2

E E D C D    D C

LYO 3

D E D C D    D C

NAR

The earliest neumatic versions have, over tuis, a pes subbipunctis resupinus. CAM 4 presents the two initial notes in unison. Among the northern sources, STA 1 alone corresponds to the primitive contour.

## SANCTORALE

Intr. Etenim (G. T., p. 632)

228 (44)

exercebatur (end)

A C G F

KLO 1, STA 1, ULT,  
VAN 2, ZIG

A H G F	ALB, BEN 5, BRC, CLU 2, DEN 2, MIL 2, ROP
A B G F	DIJ 1
A <u>B</u> G F	CAM 2, CHA 3, CIS 13, CLU 3, CON, FRA 4, ITI 3, PAR 6, ROG 1, SAR 1

Grad. Sederunt principes (G. T., p. 633)

229 (45)

<u>et adversum</u>	F G AC	MIL 2
	F F G	BEN 5, CAM 2, CLU 3, DEN 2, DIJ 1, FRA 4, ITI 3, KLO 1, PAR 6, ROP, STA 1, VAN 2, TOU, YRX, ZIG
	F F GA	BRC
	F F FG	CON
	F F F	ALB, CHA 3, CLU 2, NAR
	A A\ F	CIS 13

BIS 1, CHA 1 and ELI have an apparent double unison at the start (presumably on F), which is confirmed by the *e[qualiter]* in GAL 1. The strict alignment of three pitches on *et adver-* (corresponding to the F F F variant) is found in CLU 1 and LAN. The following note on

*-sum* in the diastematic sources is an A (with ascending liquescence or not). A tendency to fill the interval of a major third, or the wish to make the second, accented syllable in *adversum* stand out, may have justified the G on *-ver-*, while a change in the opposite direction is more difficult to account for. This would suggest that the F corresponds to a more primitive stage. The fact that GAL 1 already implies a G on *-ver-* by means of a virga does not contradict this hypothesis, for GAL 1 was written at least a century after the introduction of Gregorian chant in the Frankish Empire.

230 (47)

<u>Adiuva m e</u>	A C	CHA 3
	A <u>B</u>	ALB, BEN 5, BRC, CIS 14, DIJ 1, ITI 3, KLO 1, NAR, ROP, STA 1, VAN 2
	G A	FRA 4
	<u>F</u> B A <u>B</u> C	CLU 2, DEN 2
	FBA BC	CLU 3, PAR 6
	F AG	CAM 2

The ornamented version is prefigured in ELI and CLU 1. In the Parisian/Cluniac variant the flat on B, explicit in CLU 3/PAR 6 and not written, but possibly supposed, in CLU 2 (I was not able to double-check DEN 2), avoids a tritone. CAM 2 finds no correspondence in CAM 4.

231 (48)

propter

F

all except

FG

BEN 5, CAM 2, CIS

14, DEN 2, PAR 6,

VAN 2

This location coincides with point of variance 52 in Solesmes's *Le Graduel Romain*<sup>23</sup>. The earliest neumatic sources have a punctum. The variation occurs in the middle of a recitation on F and coincides with an accented syllable. The pes could therefore have been arrived at in different places with no need for a common neumatic model. Significantly, BEN 1 has the primitive contour, suggesting that the pes in BEN 5 is an innovation introduced independently of a neumed model.

All. V/. Video cælos (G. T., p. 634)

232 (49)

Alleluia (end)

F D

all except

FED

CIS 14, CLU 2, CLU 3,

ROP, VAN 2

GFED

DEN 2, PAR 6

GFED FFD

CAM 2

CAM 4 and DEN 1 correspond to DEN 2 and PAR 6. ITI 3 does not write the complete melisma. CHA 3 has another melody. ROG 1 has a lacuna. The same jubilus in the All V/. Inveni David, presents a slightly changed pattern of variance (see location 240).



Off. In virtute tua (G. T., p. 512)

233 (50)

eius (mid.) FED

F D

CAM 2, CHA 3, CIS  
14, DEN 2, FRA 4,  
FRA 5, ITI 3, KLO 1,  
PAR 6, ROP, SAR 1,  
STA 1, VAN 2, ZIG  
ALB, BEN 5, CLU 2,  
CLU 3, DIJ 1, LYO 3,  
NAR

CHA1, ELI, EPT, LAN and MUR 3 all have a climacus. LYO 1 agrees with LYO 3, CLU 1 with CLU 2 and CLU 3. The simplified contour seems to be proper to Aquitaine, Burgundy (Cluny+Dijon), Lyons and Benevento.

234 (51)

eius (end) F D\

E D\

KLO 1, STA 1, VAN 2,  
ZIG  
all the others

Com. Video cælos (G. T., p. 635)

235 (53)

accipe spiritum CH<sup>+</sup> C CA H  
CH C CA H  
CH H HA H

DIJ 1  
ALB, BEN 5, MIL 2  
CIS 14, CLU 3

CH H HA AH	DEN 2
H H HHA AH	PAR 6
H H HA H	CHA 3, ROG 1, STA 1, ULT, VAN 2
H HA H H	YRX
HA H HA H	CAM 2, CLU 2, CON, KLO 1, ROP, ZIG
HA D CA H	FRA 4
CH D CH H	ITI 3

The preceding notes are D, C. The earliest manuscripts give a clivis over *-pe*. Its first note, quickly performed according to MUR 3, disappears in some sources; it most probably was a C, like the one preceding. YRX, on the one hand, and the Italian sources, on the other, attempt to single out the accented syllable of *spiritum*, either through neumatic weight (clivis) or through tonal acuity (high D). The divergence between C and H over *spi-* may have to do with a microtonal phenomenon, suggested by DIJ 1. An hypothetical solution for this passage, compatible with the manuscript evidence including the significative letters in MUR 3 (*a[ltius]* next to the lower note of *pe*, two *e[qualiter]* before and after *spi-*, *i[inferius]* *m[ediocriter]* next to the lower note of *-ri-*) could be the following: CH<sup>+</sup> H<sup>+</sup> HA H.

Off. Gloria et honore (G. T., p. 434)

236 (56)

Domin e (end)

G D

all except

G F D

ROP

GF'ED	CAM 2, CLU 3, DEN 2
D E D	CLU 2
D F D	PAR 6

The Franciscan MSS simplify the entire passage over *-ne* (to G F F D), making comparison unfruitful. The CLU 3/DEN 2 variant at the end of the passage (G F' E D) is already prefigured in ELI, and is also found in CAM 4 and DEN 1. According to Dean R. Justmann's transcriptions, this expanded version is additionally found in Angers, Sens, Worcester and Narbonne; the torculus alternative, in Orleans and Provins. All of Justmann's Germanic and Beneventan sources, and most of his Aquitanian and Italian ones, retain the majority G D variant.

Com. Exiit sermo (G. T., p. 637)

237 (57)

<u>Exiit</u>	C CCC	all except
	H CCC	ALB, MIL 2

TOU and YRX have an initial C. The contour in CHA 1 is ambiguous. MUR 3 writes an *e[qualiter]* before *xi*, implying a unison. A few manuscripts compress the repercussed Cs.

238 (58)

<u>non dixit</u>	DA ACA GAG	KLO 1, STA 1, ULT,
		VAN 2, ZIG
	DA AHA GAG	BEN 5

DA AHA AG	MIL 2, TOU
DG GAG GF	ALB, BRC, YRX
DG GAG FGFE	CHA 3, CIS 13, CLU 2, CLU 3, DEN 2, DIJ 1, FRA 4, ITI 3, ROG 1, ROP, SAR 1
CG GAG FGFE	CAM 2, PAR 6
DG GAG FGAGF	CON

On *xit*, CHA 1 has a torculus, while MUR 3 has a torculus subpunctis. Both contours had a wide circulation. The clivis seems to be an Aquitanian abridgment of the simple torculus. The divergence concerning the tonal axis (G or A) has to do with the modal ambiguity of the piece: second mode with low B flat (hence the transposition in VAT), with "plagal" reciting tones F and G, but also (if the A axis is accepted) with a strong "authentic" flavor, which seems not to have been well regarded everywhere.

239 (59)

<u>Iesus</u>	E G A C G F	KLO 1, STA 1, ULT, VAN 2, ZIG
	E G A H G F	BEN 5, MIL 2
	D G A H G G F	CLU 2
	D G A H A G F	CLU 3
	D F G A G F	ALB, DIJ 1, ROG 1
	D F G A F E	BRC, ITI 3, TOU, YRX
	D F G A F D	DEN 2, ROP

D EFGFDDC	CAM 2, CIS 13
D EFGFE	SAR 1
D EFGF'	CHA 3, CON, FRA 4, PAR 6

All. V/. Inveni David (G. T., p. 446)

240 (61)

Alleluia (end)	F D	all except
	FED	CHA 3, CIS 13, CLU 2, CLU 3, DIJ 1
	GFED	DEN 2, ROG 1
	GFED EFD	CAM 2

I could not find the piece in ITI 3 and PAR 6. See above,  
location 232.

Off. Inveni David (G. T., p. 447)

241 (62)

<u>auxilia</u> bitur	C C C CD	ALB, CHA 3, DIJ 1, ITI 3, MIL 2, TOU, YRX
	C C CH CD	BEN 7, CAM 2, CIS 13, CLU 2, CLU 3, DEN 2, FRA 4, FRA 5, IRI, KLO 1, NAR, ROG 1, ROP, SAR 1, STA 1, VAN 2

CHA 1 and MUR 3 have a punctum over *auxiliabitur* and a salicus over *auxilia**u**bitur*. In the preceding passage, a climacus followed by an oriscus in both CHA 1 and MUR 3 leads to a note, on *mea*, which in MUR 3 is marked *e[qualiter]* (in relation to the preceding oriscus). This note is a microtone in DIJ 1 (it is translated either as B natural or C in the diastematic sources). Following it, MUR 3 has puncta marked *e[qualiter]* relative to the starting note of the salicus. This suggests  $H^+ H^+ H^+ H^+ H^+ C$ , which cannot be transferred to the diatonic system. It is possible (or quite likely, if my hypothesis is correct) that the scribe of some early manuscript, not examined here, chose to write one or more of the problematic notes as H instead of C.

Off. Veritas mea (G. T., p. 483)

242 (85b)

ipso

D C

all except

C D C

CAM 2, DEN 2, PAR 6,

ROG 1

The French variant C D C is also found in ELI and DEN 1.

Off. Filiæ regum (G. T., p. 505)

243 (86)

honore

C D C D

all except

C D A C

CHA 3

A C C D

ROP

C D D E

CLU 2, CLU 3

The notator of CLU 1 wrote the second pes higher than the first, and both higher than the two pedes preceding (A C A C); this confirms that the last and apparently unique Cluniac variant, C D D E, was known at, and disseminated by Cluny.

244 (87)

<u>tuis</u>	CDCA	all except
	CDCHA	CLU 2, CLU 3, DEN 2, KLO 1, ULT
	CCHA	FRA 4, PAR 6, ROG 1, ZIG
	HCHA	ROP

The Cluniac version is already found in ELI, besides CLU 1 and DEN 1. The extra note H in KLO 1 and ULT may have arisen independently rather than from of a neumed model. The preceding notes are: E D, and tuis ends on A or G. The lowering of the middle notes over tuis (C C H A variant) is thus related to the overall downward movement of the passage. Once this version was established, the initial H may have appeared (in ROP) as an alternative approach to C from above. The ROP variant H C H A can also be conceived as a lowering of the up-and-down movement C D C A irrespective of intervallic content.

245 (88)

daurato (end)

C G F

all except

H G F

ALB, CLU 2, CLU 3,  
MIL 2, NAR, TOU,  
YRX

Cluny joins Aquitaine in lowering the C, possibly pushed down by the attraction of G and F (both long notes, according to MUR 3).

246 (89)

varietate (end)

H H G F

STA 1

H C A G

BEN 5, CHA 3, CIS 13,  
DEN 2, DIJ 1, FRA 4,  
KLO 1, MIL 2, NAR,  
PAR 6, ROP, ULT

CHC A G

CLU 3, ROG 1, YRX

C C A G

ALB, CAM 2, VAN 2

The preceding notes are: C D. The H C continuation, found in the vast majority of the sources, finds confirmation in the neumatic contour of CHA 1 and MUR 3.

Off. Lætamini (G. T., p. 468)

247 (91)

exsultate (beg.)

G C

all except

A C

ITI 3, YRX



GAC	CHA 3, CIS 13, CLU 3, DEN 2, FRA 4, FRA 5, PAR 6, ROP
GAHC	ROG 1

The G beginning is confirmed by the *e[qualiter]* (relative to the preceding note) in MUR 3. The GAC version is already implied by CLU 1 (followed by CLU 3, not CLU 2), while ELI, DEN 1, LYO 1 and OTU 2 adhere to the traditional G C contour. The data published by Justmann allows us to add, besides fifteen more sources with the G C version, six more (from all regions) with AC; ten more (from all regions) with GAC; and twelve more (from all regions) with GAHC. The filling of the tonal space is therefore a general tendency, which in this location does not depend on regional preference.

Com. Multitudo languentium (G. T., p. 471)

248 (92)

<u>ven</u> iebant	D F	all except
	C D	CHA 3, DEN 2, PAR 6, ROP

The preceding note is a C, and the following, an F. The French variant, contradicted by the *s[ursum]* over *ve-* in MUR 3, allows the following, accented syllable *-e-* to stand out not only through neumatic density (a torculus, F G F in VAT), but through tonal contrast (higher pitch) as well.

Com. Responsum accepit (G.T., p. 544)

249 (98)

nisi <u>v</u> ideret	C G	ALB, BEN 5, CAM 2, CIS 13, DIJ 1, KLO 1, MIL 2, ROG 1, ROP, STA 1, ULT, VAN 2
	CH G	CHA 3, FRA 4, ITI 3, LYO 3
	CH AG	CLU 2, CLU 3, DEN 2, PAR 6

A clivis over *nisi* is found in EPT, LAN, LYO 1 and MUR 3; its short, ornamental character may explain its disappearance in most sources. The second clivis (A G) is found in CLU 1, DEN 1, ELI, ITI 1 and OTU 2; the French sources (Cluny included) show here their preference for filled-in tonal spaces.

Tr. De profundis (G. T., p. 673), V/. Quia

250 (99)

propit <u>i</u> atio	A C	all except
	AHC	ITI 3
	CH	CLU 2, CLU 3, DEN 2

The middle note H in ITI 3 corresponds to the primitive quilismatic note, which disappeared almost everywhere; the quilisma-pes in GAL 1 and LAN was replaced by a simple podatus. The alternative clivis-contour (corresponding to C H in the Cluniac sources and DEN 2) is found already in the tenth-century in ELI, and is transmitted afterwards by CLU 1 and DEN 1 (not LYO 1 or OTU 2).

### 3. ADDITIONAL OBSERVATIONS

#### 3. 1 The formula (C)DHCA(G)

Locations 5, 37, 96, 122, 129, 136, 192 and 246 established the existence of a formula, (C)DHCA(G), which often appears in the manuscripts as (C)DCCA(G); the bracketed notes are optional. These locations belong to pieces traditionally assigned to the second (nrs. 5, 192), third (nrs. 96, 246), fifth (nrs. 37, 122) and seventh (nrs. 129, 136) modes. A cursory examination of those places where the semitonal version of the formula occurs in DIJ 1 and VAT in pieces assigned to the seventh mode gives the following result:

The DHCAG cell is found in the VAT and DIJ 1 readings of the graduals *Audi filia*, on regna; *Benedicam Dominum*, on lætentur; *Benedictus Dominus*, on solus and colles; *Dirigatur*, on vespertinum; *Iacta*, on te, enutriet and mihi; *Miserere mihi*, on valde; *Qui sedes*, on Ioseph; *Salvum fac populum*, on lacum. It reappears at the end of the alleluias *Quoniam Deus*, *Exultabunt sancti*, *Pascha nostrum* V. *Epulemur*, and *Te decet* V. *Replebimur*, and in the offertory *Confitebuntur*, V. *Misericordias*, over misericordias and Domine. VAT has it in the introit *Venite benedicti*, in the last alleluia: our location 205; but the VAT version is not authentic. DIJ 1 has the same intervallic sequence in the introit *Puer natus est*, on datus est nobis, which corresponds to the neumatic profile of LAN and MUR 3; and a filled-in formula DHCHAG in the introit *Oculi mei*, over in me, with the same neumatic correspondence. The ornamented version

DHCD[CD]AAG is found in both VAT and DIJ 1 in the graduals *Dirigatur*, over *dirigaur* and *tuo*; *Iacta*, over *his*; *Liberasti*, over *affligentibus nos* and *tuo*; and *Miserere mihi*, over *mea*.

The more basic profile DHCA is found in both VAT and DIJ 1 in the gradual *Liberasti nos*, over *confudisti*; in the offertory *Confitebuntur*, V. *Misericordias*, over *tuas*; and in the communion *Redime me*, over *angustiis*. It reappears in the VAT edition of the communion *Signa eos*, on *sequentur*; in the DIJ 1 reading of the last *alleluia* in the introit *Aqua sapientia*; and the same manuscript's version —corresponding to the neumes of LAN and MUR 3 —of the introit *Respice Domine*, over *quaerentium*. The gradual *Lætatus sum*, over *dicta* presents a transposition in the high register of this same topos (our location 129).

The filled-in profile DHCHA is illustrated by the gradual *Lætatus sum*, over *ibimus*: VAT agrees here with all the diastematic MSS. consulted except CHA 3, KLO 1, MET 1, SAR 1, STA 1 and VAN 2, which have a C instead of an H<sup>24</sup>. The contour DHCHA is also found in the VAT and DIJ 1 readings of the introit *Puer natus est*, over *nomen eius*; the gradual *Oculi omnium*, over *tempore*; the offertory *Eripe me*, V. *Quia*, over *anima*; and the communions *Fidelis servus*, over *tritici*, and *Mense septimo*, over *habitae* and *educerem*. The same contour is reproduced in the VAT edition of the gradual *Clamaverunt*, on *omnibus*, and in the DIJ 1 reading of the communion *Ite, dicite*, over *scandizatus*. An ornamented version DHCHGA is found in the offertory *Confitebuntur*, V. *Misericordias*, on *aeternum*, in both VAT and DIJ 1. The alternative ornamented topos DHCDCHA is seen in both VAT and DIJ 1 in the communions *Domine quinque*,

over *domini*, and *Unam petii*, on *requiram* and *vitæ*; it is expanded into DHCDCHGA in the communion *Redime me*, on *Israhel*.

A related melodic gesture, DH|C|C, is exemplified by the introit *Aqua sapientia* and *Puer natus* (our points of variance nrs. 25 and 203), but the **H** is possibly not authentic. The ornamented topos DHCDC is found in the VAT and DIJ readings of the gradual *Oculi omnium*, over *aperis*; of the alleluia *Venite exultemus*, over *domino*; and of the communion *Signa eos*, over *imponent*. In DIJ 1, one can add the introit *Gloria et honore*, over *opera*. The gradual *Benedicam Dominum*, over *tempore*, presents an expanded version of the DHCC topos. The version DEHCDC, adopted by VAT, is shared by BEC, KLO 1, ROP, SAR 1, STA 1, VAN 2 and ZIG; it corresponds to the neumatic contour in CHA 1 and DEN 1. The alternative DECCDC is supported by ALB, BEN 2, BRC, CLU 2, CLU 3, DEN 2, FRA 4, ITI 3, NAR and YRX <sup>25</sup>.

The overall melodic orientation of the phrase probably had some influence on the way the C was approached. In the gradual *Lætatus sum*, over *ibimus*, we have seen that the manuscript tradition favors a semitonal approach to the climacus CHA, which starts quickly and ends with a rhythmic pause; but in the passage immediately following over the same syllable, nearly every manuscript (the exception being KLO 1) goes from the upper D to C without any intermediary step<sup>26</sup>. Here, a rhythmic pause occurs on C before the melody descends to A, only to raise again to C. In such circumstances, or in a melodically stationary context exemplified by our point of variance 26 above, the semitonal approach to C from above was sometimes kept in stock as an optional turn of phrase, but does not seem to have been favored as a normal element of modal

vocabulary as in descent-oriented melodic contexts. The fact that the semitonal approach in descent-oriented melodic contexts is not unanimously agreed by the diastematic manuscripts may have to do with a flexible performance practice, with a particularly high intonation of the mi-note or with one the rules behind melodic change, L. 2: between a D and a C, an H tends to slide upwards.

### 3. 2 Braga

The melodic tradition of Braga shows no trace of northern French or Burgundian influence; it is typically Aquitanian. This can be seen in the Offertories *Jubilate Deo omnis terra*, over terra iubilate (nr. 39) and *Dextera Domini*, on Dextera (nr. 48); in the Tract *Qui confidunt*, over Montes (nr. 141); and, to some extent, also in the Tract *Qui habitat*, on refugium meum Deus (nr. 71). When compared with other Aquitanian sources, namely ALB, MIL 2, TOU and YRX, the Braga Gradual reveals an identity of its own. In the intonation of the Offertory *Reges Tharsis*, for instance (nr. 33), its melody does not coincide with that in the other Aquitanian sources; in the remaining points of variance Braga sides with any of them, showing no particular preference. Thus, in the Communion *Exiit sermo*, over non dixit (nr. 238), in the Introit *Laetare Hierusalem* on qui diligitis (nr. 124) and in the Tract *Qui confidunt*, over Dominus (nr. 143), it coincides with ALB and YRX against MIL 2 and TOU, but in the Introit *Protector noster*, over et respice (nr. 225) the opposite is true. In the Introit *Resurrexi*, on tecum (nr. 185) it is closer to YRX

than to ALB, but on *posuisti* (nr. 186) and in the intonation of the Communion *Pascha nostrum* (nr. 195) it sides with ALB, MIL 2 and TOU against YRX. Braga does not follow the very particular version of ALB in the Offertory *Dextera Domini* (articulation of the last *Domini*)<sup>27</sup> nor the ornamental variant of TOU in the Gradual *Tollite portas* (on *elevamini*) (nr. 5). It is, however, the only manuscript to agree with TOU at the beginning of the Offertory *Perfice gressus meos* (nr. 57) and therefore seems to be particularly close to the melodic tradition in the Toulouse area. This proximity should nevertheless be qualified by the fact that MS Paris, B.N. lat 1121, from St. Martial de Limoges, has the same incipit<sup>28</sup>. A similar version is found in the fourteenth century Gradual Barcelona, Bibl. Catalunya Mús. 648, whose list of post-Pentecost Alleluias suggests a liturgical connection with the Aquitanian littoral<sup>29</sup>; this indicates that the intonation of *Perfice gressus* in TOU enjoyed wider currency in the south than could be assumed on the basis of our sample<sup>30</sup>. The fragment Zamora 202 studied by Kathleen Nelson also has the TOU incipit<sup>31</sup>.

### 3. 3 Metz

MET 1 was compared with eighteen independent melodic versions (the *lacunae* in ULT excluded it) in 50 points of variance<sup>32</sup>. From this confrontation it becomes clear that STA 1 and VAN 2 are, by far, the closest sources to the Metz melodic tradition (34 and 31 coincidences respectively), followed by DEN 2 and KLO 1 (20 and 19



coincidences, respectively, but the last number is relative to 49 variants only). STA 1 and VAN 2 coincide together with MET 1 in twenty-five cases; in fifteen more, only one of these sources coincides with MET 1 (three times, VAN 2 and MET 1 are completely alone). In nine of the remaining ten cases, MET 1 is paralleled either by BEN 5 (always supported by an Aquitanian MS, ALB or MIL 2) or by DEN 2. A striking feature of MET 1 is the tendency to replace quilismatic notes by the adjacent lower degree (something with does also occur now and then in STA 1). Since VAN 2 has strong links with LAN<sup>33</sup>, the close relationship between MET 1 and VAN 2 implies, indirectly, that the neumatic versions of Laon are specially close to the Metz chant tradition.

MET 2 could be compared with other versions only in twelve points of variance<sup>34</sup>. Although the results are not significant by themselves, they do not contradict the above findings: VAN 2 coincides eleven times, STA 1 and KLO 1 ten times, the remaining less than ten times. This source has a curious tendency to lower by a semitone the second of two repeated fa notes.

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<sup>1</sup>On this problem, see J. Gajard, "Du rôle des principales familles de manuscrits", 6-8; Alberto Turco, "La questione del si bemolle", *Studi gregoriani*, I (1985), 47-101; id., "Il bemolle. Attuali acquisizioni e limiti", *Studi gregoriani*, X (1994), 41-149.

<sup>2</sup>*Musica et Scolica enchiridis*, 5.

<sup>3</sup>J. Jeanneteau, *Los modos*, 197, 199-200.

<sup>4</sup>*Le Graduel Romain*, IV/i, 168, 328.

<sup>5</sup>A conjectural reading may in time prove to be correct: Nigel Wilson, "Variant Readings with Poor Support in the Manuscript Tradition", *Revue d'Histoire des Textes*, 17 (1987), 1-13.

<sup>6</sup>Dean Richard Justmann, "Mode-One Offertories: A Critical Edition with Analysis", 6 vols. (Ph. D. diss., Northwestern University, 1988).

<sup>7</sup>Jeffrey Wasson, "Gregorian Graduals of the First Mode: An Analytical Study and Critical Edition", 3 vols. (Ph.D. dissertation, Northwestern University, 1987), 1008, 1021, 1033, 1045, 1057.

<sup>8</sup>"Un criterio importante per la questione del Si e del Mi è quello di non basarsi unicamente sul numero, sulla quantità dei codici citati, né soprattutto sulla percentuale di quelli che concordano o non concordano per i singoli casi, sibbene sulla qualità e il peso della loro testimonianza": Luigi Agustoni, "La questione del Si e del Mi", *Studi gregoriani*, I (1985), 5-46 [40].

<sup>9</sup>Fulvio Rampi, "Quattro brani restituiti", *Studi gregoriani*, 3 (1987), 167-90.

<sup>10</sup>*Le Graduel Romain*, IV/i, 49, 306.

<sup>11</sup>See below, points of variance 153 and 204. Another example, in the communion *Omnes qui in Christo*, is commented upon by R. Monterosso, "Cluniacensi", 46-47.

<sup>12</sup>This was my preliminary point of variance nr. (208a). As unfortunately happened with other preliminary points of variance, the notes relating to this point are too syncretical to allow the methodic presentation of each individual reading in a comparative table.

<sup>13</sup>On the meaning of the *porrectus* in the earliest neumatic manuscripts, see Chapter 6: Commentary, section 6.

<sup>14</sup>Charlotte D. Roederer, "Can We Identify an Aquitanian Chant Style?", *Journal of the American Musicological Society*, 27 (1974), 75-99 [99].

<sup>15</sup>Michel Huglo, "Gallican rite, music of the", *The New Grove*, vol. 7, 113-25 [117]. Incidentally, a Gallican substratum may also explain the West-Frankish preference for new G-mode melodies: see Karlheinz Schlager, "Regionaltradition und Modalität in der liturgischen Monodie des Mittelalters", *Studia musicologica*, 27 (1985), 117-22, and Jean Claire, "Le Cantatorium romain et le Cantatorium gallican. Étude comparée des premières formes musicales de la psalmodie", *Orbis musicæ*, 10 (1990/1991), 50-86.

<sup>16</sup>*Le Graduel Romain*, IV/i, 107, 320.

<sup>17</sup>Could this relate to the high esteem in which the chant tradition of Lyons was held at Solesmes? Cf. Joseph Pothier, *Le chant de l'église de Lyon du VIIIe au XVIIIe siècle* [extrait de la *Revue de l'Art Chrétien*, ii/XV], Arras, 1881.

<sup>18</sup>If this innovation stems from Cambrai, it is not difficult to explain why it made its way into the Cistercian books. S. Bernard's correspondence reveals that he was a good friend of, and was in more or less permanent contact with, Nicolas de Chièvres, bishop of Cambrai (1137-1167): cf. *Opere di San Bernardo*, ed. Ferruccio Gastaldelli, vol. VI/2, Milano: Fondazione di Studi Cistercensi, 1987, 12-13, 577. Books from Cambrai — amongst them, possibly CAM 4 itself — were thus probably examined by the Cistercian Commission which investigated the melodies of the Gradual. It would have pleased the members of the Commission — convinced that Gregorian chant was originally a rational, theoretically controlled artistic creation — to find a grammatically "correct" variant (in this particular case, a melodic line modelled on word-accent) in any of the books examined; such a variant would certainly have been considered an archaic survival to be retained in the official edition of the melodies.

<sup>19</sup>*Le Graduel Romain*, IV/i, 56, 308.

<sup>20</sup>A summarized version of the Szigeti's dissertation presented at the Pontifical Institute of Sacred Music in Rome was published as an article twenty-five years later: Chilianus Szigeti, "Les formules dans l'esthétique grégorienne", *Études grégoriennes*, VII (1967), 1-19 [13].

<sup>21</sup>R. Haller, "Early Dominican Mass Chants", 245, 298.

<sup>22</sup>K. A. Fleming, "The editing", 100-107. The MS transcribed is Paris, B. N. lat. 1132.

<sup>23</sup>*Le Graduel Romain*, IV/i, 87, 315.

<sup>24</sup>This was my preliminary point of variance nr. (200a).

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<sup>25</sup>This was my preliminary point of variance nr. (312).

<sup>26</sup>This was my preliminary point of variance nr. (200b).

<sup>27</sup>This was my preliminary point of variance nr. (95).

<sup>28</sup>According to the transcriptions in C. Frasc, "Notation as a Guide", 372. MS Paris, B. N. lat. 1235, from Nevers, basically agrees with St. Martial.

<sup>29</sup>MS examined *in loco*.

<sup>30</sup>I was unaware of this when I wrote "As origens do Gradual de Braga". The Toulouse connection is therefore given too much weight.

<sup>31</sup>Kathleen Nelson, "Two Twelfth-century Fragments in Zamora: Representatives of a Period of Transition", to be published in the R. Snow Festschrift. I wish to thank Dr. Nelson for sending me the excerpt of her article relative to this topic prior to publication.

<sup>32</sup>My preliminary numbers (150-53, 155, 156, 158-60, 162, 164, 166-68, 171, 172, 174-77, 192, 193, 195, 196, 197b, 199, 200, 202a, 204, 206a, 212, 212b, 214, 218, 219a, 227-29, 232, 235, 237, 238-40, 242-44, 248-50). A few points did not offer useful information, others were avoided so that the rise of the mi note would not be over-represented in the sample.

<sup>33</sup>*Le Graduel Romain*, IV/i, 210, 213, 249. This does not mean, however, that VAN 2 is the diastematic mirror-image of LAN; their relationship is more oblique, due to diverse influences converging in VAN 2: see Dom Daniel Saulnier, "Le manuscrit Verdun 759", *Verdun, Bibliothèque Municipale 759*, vii-xvi.

<sup>34</sup>My preliminary numbers (273-77, 279-85). In location (278) the MS is isolated.

## APPENDIX 2:

### COMPARATIVE TABULATION OF MICROTONAL INDICATIONS

#### 1. PRESENTATION

**Dij** — Tonary from St. Bénigne de Dijon, MS. Montpellier, Faculté de Médecine, H 159. Includes Offertory verses, but not the psalmody for the Introits.

**Ult** — Gradual from the Utrecht region, MS. Utrecht, Catharijneconvent, ABM h 62. Includes complete Introit psalmody, but not Offertory verses (with a few exceptions).

**Sta** — Missal from Stavelot, MS. London, British Library, *Add.* 18031/2. Includes for most Introits the complete psalmody; does not transcribe the Offertory verses.

**Clu** — Gradual from Cluny, MS. Paris, Bibliothèque Nationale, *lat.* 1087. Includes Offertory verses; gives only the incipits and *differentiæ* of the Introit psalmody.

This section consists primarily of a comparison between **Dij**, **Ult**, **Sta** and **Clu** concerning the use of microtonal indications in ninety compositions, identified according to: genre (in liturgical order); *incipit* (in alphabetical order); **Dij** number in Hansen's edition; and folio number in **Ult**, **Sta** and **Clu**. Information concerning TRE 2 is additionally included<sup>1</sup>.

Methodology followed: Ninety-five pieces were selected at random, the only condition being the presence of a special sign in at least one of the four main manuscripts quoted above. These compositions comprise thirty introits, twenty-two graduals, six tracts,

thirty offertories and seven communions. Five pieces were then rejected, on the ground either that the piece is entirely missing, or substantially lacunose, in one of the manuscripts; or that in **Dij** it is represented exclusively or mostly by neumes that do not, in this codex, carry microtonal information. These five pieces are joined together as an Addendum to the main list.

For every one of the ninety pieces selected, the presence of a special sign in any of the four manuscripts was duly recorded according to its location. The location is given in the left column; at the center, the neume to which it corresponds is identified; the right column lists the manuscript or manuscripts which have a special sign at this particular point. If for a given location, TRE 2 also has a special notational shape, the fact is always signaled.

The location of the special signs in each piece is given on the basis of the syllable it corresponds to and the kind of neume that it affects; when a syllable carries more than a neume, additional information is offered regarding the place where the neume is to be found.

In the absence of a critical edition of the *Graduale Romanum*<sup>2</sup>, the identification of the neume (species and placement) is primarily based on the comparison between the two adiastematic sources transcribed in the *Graduale Triplex* and the *Offertoriale Triplex* (MSS. Laon 239 above the staves and Einsiedeln 121 or St. Gall 359, supplemented when necessary by other mss. from the St. Gall family, below the staves)<sup>3</sup>. When conflicts arise or when Laon does not have the neumatic information needed, I had recourse to the MS. Chartres 47. Sometimes another source from the St. Gall tradition was

consulted; for instance, in the gradual *Ego autem*, over *induebam*, Einsiedeln (not transcribed in the *G.T.*) agrees with Chartres and Laon, not with St. Gall 359.

In the present chapter, the identification of a neume presupposes agreement between at least two of the three regional traditions considered (Brittany, Laon, St. Gall notational family)<sup>4</sup>; it follows that the result arrived at does not always follow the St. Gall tradition, and sometimes does not correspond to the square notation in the Vatican-approved Gradual (the Vatican edition was nevertheless taken into account in the rare cases where two or three contradictory neumatic versions seem to have equivalent claims to antiquity). Given the different way the *salicus* is used in the St. Gall sources as compared to Laon and Chartres<sup>5</sup>, identification of this neume required agreement among the three neumatic traditions, except when Laon lacks the passage, in which case agreement between Chartres and St. Gall was considered sufficient. The presence of a *salicus* in St. Gall was nonetheless duly noted.

Since the aim of this work is analytical and not paleographical, a few simplifications were deemed suitable. The *clivis*, the *porrectus* and the *torculus* are identified as such both when found alone and when found in composition with other neumes: for instance, a *quilisma* (-*pes*) *flexum resupinum* is listed simply as a *porrectus* preceded by a *quilisma*. This procedure allows us to bring into focus the melodic inflection, for it makes it possible, for instance, to distinguish between the *clivis prepunctis* where the smaller interval is found at the end (listed simply as *clivis*: locations 284, 288, etc.) and the same neume, where the smaller interval is found at the beginning (listed as

*punctum* in composition with following *clivis*: location 507). Liquescent neumes other than the simple varieties (*epiphonus* and *cephalicus*) have been not considered on their own, except when the special sign affects the liquescence: for instance, a liquescent *porrectus* where the special inflection affects the second note has been listed simply as *porrectus*. On the other hand, special attention was given to context: whenever a *quilisma* or an *oriscus* precedes or follows a neume, the fact was invariably recorded; close horizontal relationships were also taken into account.

**Abbreviations:****1. General**

[	Introit psalmody
<	Offertory verse
*	incipit alone
--2	twice
(beg.)	beginning
(Clu miss.)	Clu: verse missing
(Dij miss.)	Dij: letters missing at this point
(mid.)	middle
(n.)	neume
(near beg.)	near the beginning
(penult. n.)	penultimate neume
(prim.)	primitive state
(Ult. miss.)	Ult: music missing at this point
(†)	Trier 2254/2197 also has a special sign

**2. Neumes**

BIV	Bivirga (in St. Gall notation)
CEP	Cephalicus
CLV	Clivis (alone or in composition; includes clivis prepunctis and the clivis element in the scandicus flexus, the porrectus flexus and the quilisma flexum)
CLM	Climacus
CRE	Climacus resupinus
EPI	Epiphonus
GUT	Gutturalis (in the St. Gall tradition, supported either by Laon or Chartres, or both)
[GUT]	Gutturalis (only in the St. Gall tradition)
ORI	Oriscus
[ORI]	Oriscus (only in the St. Gall tradition)
PCP	Pes conpunctis



PEL	Pes liquescens
PES	Pes
POR	Porrectus (alone or in composition)
PPP	Pes prepunctis
PRE	Pressus
[PRE]	Pressus (only in the Laon or the St. Gall tradition)
PRR	Pressus resupinus
PSP	Pes subpunctis (including the resupinus variety)
PUN	Punctum (tractulus or punctum in the St. Gall tradition, a single note in other sources)
QUI	Quilisma
QPP	Quilisma prepunctis
SAL	Salicus
[SAL]	Salicus (only in the St. Gall tradition)
SCA	Scandicus
SSP	Scandicus subpunctis (including the resupinus variety)
STR	Strophicus
TOR	Torculus (alone or in composition)
TRE	Torculus resupinus
TRI	Trigon
VIR	Virga (in the St. Gall tradition, a single note in other sources)
?	Either the oldest mss. disagree or they lack the information needed
X?	Problematic identification
—	The oldest mss. do not have this neume
---X	Immediately preceded by (or in composition with preceding) ---
X---	Followed by (or in composition with following) ---
(---)X	Possible melic relationship with preceding ---
X-	
-X	Contextual relationship

## 2. MICROTONES IN NINETY COMPOSITIONS

1.

Intr. <i>Ad te levavi</i>	Dij 606; Ult, 1r; Sta, 22r; Clu, 2r
... in te <u>confido</u> ...	CLV Ult, Sta, Clu
... <u>neque</u> ...	VIR Clu
... qui te <u>expectant</u> ...	TOR Dij, Sta, Clu

2.

Intr. <i>Confessio et pulchritudo</i>	Dij 436; Ult, 51r; Sta, 82v; Clu, 31v
... in <u>conspectu</u> ... (end)	POR Ult, Sta
... <u>magnificentia</u> ... (end)	oriTOR Ult

3.

Intr. <i>De necessitatibus meis</i>	Dij 467; Ult, 52; Sta, 84v; Clu, 32r
<u>De</u> necessitatibus ...	TOR Dij, Ult, Sta, Clu
De <u>necessitatibus</u> ...	TOR Dij, Ult, Sta, Clu
... <u>humilitatem</u> ...	CLV Dij, Ult, Sta
... <u>dimitte</u> ...	CLV [PRE] Ult
10 [... <u>erubescam</u> ...]	VIR Ult

4.

Intr. <i>Domine, ne longe</i>	Dij 604; Ult, 101r; Sta, 143r; Clu, 51v
... defensionem <u>meam</u> ...	GUT- Dij, Ult (†)
... defensionem <u>meam</u> ...	-CLV Dij, Ult, Clu
... aspice: libera ...	CLV Dij, Ult, Sta, Clu
... aspice: <u>libera</u> ...	CLV Dij, Ult, Sta, Clu
... unicornium ...	PUN Dij
... <u>humilitatem</u> ...	SAL Dij, Clu

5.

Intr. <i>Dum clamarem</i>	Dij 433; Ult, 41v; Sta, 70v, ii-88v; Clu, 27r
... ad <u>dominum</u> ...	TOR Dij, Ult, Sta, Clu
... appropinquant <u>mihi</u> ...	CLV Dij, Ult, Sta(ii), Clu
... et humiliavit ...	CLV Dij, Ult, Sta, Clu
20 ... ante <u>secula</u> ...	BIV Dij
... ante <u>secula</u> ...	CLV Dij, Ult
... in eternum ...	CLV Dij, Ult, Sta, Clu

6.

Intr. <i>Dum medium silentium</i>	Dij 602; Ult, 22r; Sta, 45r; Clu, 12v
... <u>tenerent</u> ...	TOR Ult, Sta, Clu

... sermo <u>tu</u> us ...	SAL	Sta
... reg <u>al</u> ibus ...	SAL	Dij, Sta
... sed <u>i</u> bus ...	TOR	Dij, Sta, Clu
[... virt <u>u</u> te	?	Ult

7.

Intr. <i>Dum sanctificatus</i>	Dij 438; Ult, 81r; Sta, 119r; Clu, 45r
... in vob <u>i</u> s ...	(qui)CLV Sta
... uni <u>ver</u> sis ...	SAL Dij
30 ... terr <u>i</u> s ...	CLV Ult, Sta, Clu
... vos <u>a</u> quam ...	CLV Ult, Clu
... ab omnib <u>u</u> s ...	CLV- Dij, Ult, Sta, Clu
... in <u>q</u> uinamentis ...	-EPI Dij
... in <u>q</u> uinamentis ...	GUT- Ult
... in <u>q</u> uinamentis ...	-PUN Dij

8.

Intr. <i>Ego autem cum iustitia</i>	Dij 349; Ult, 61v; Sta, 95v; Clu, 38r
... conspectu <u>tu</u> o ...	CLV Dij, Ult
... gloria <u>tu</u> a	CLV Dij, Ult, Sta, Clu
[... deprecation <u>em</u> meam	PUN Ult

9.

Intr. <i>Ego clamavi</i>	Dij 439; Ult, 68v; Sta, 104r; Clu, 41r
... quon <u>i</u> am ... (beg.)	CLV Dij, Sta
40 ... exaud <u>i</u> sti ...	SAL Dij
... et ex <u>a</u> udi ...	CLV Dij, Ult, Sta, Clu
... ver <u>b</u> a mea ... (beg.)	CLV Dij
... custod <u>i</u> me ...	TOR Dij, Ult, Sta, Clu (†)
... dom <u>i</u> ne, ut ...	CLV- Dij, Sta, Clu
... domine, <u>ut</u> ...	-PES Dij
... pupillam <u>o</u> culi ...	POR Dij, Ult, Sta
... tuarum ... (end)	QUI Sta
[... deprecation <u>em</u> ...	CLV Ult

10.

Intr. <i>Fac mecum</i>	Dij 404; Ult, 72r; Sta, 108v; Clu, 42v
... quoniam <u>tu</u> ...	CLV Dij, Clu
50 ... ad <u>i</u> uvasti me ...	CLV Dij, Ult
... consolatus <u>es</u> ...	CLV Dij, Sta
... consolatus <u>es</u> ... (beg.)	PSP Dij
... consolatus <u>es</u> ... (end)	quiPOR Dij

11.

Intr. <i>In nomine Domini</i>	Dij 445; Ult, 112v; Sta, 158r; Clu, 54v
... <u>domini</u> omne ...	GUT- Dij, Ult, Sta
... domini <u>omne</u> ...	-EPI Dij
... <u>terrestrium</u> ...	TOR Dij, Ult, Sta, Clu (†)
... et inferno <u>rum</u> ...	CLV Clu

12.

Intr. <i>In virtute tua... iustus</i>	Dij 563; Ult, 143v; Sta, 207v; Clu, 20v
... <u>letabitur</u> ...	CLV Sta
... et <u>super</u> ...	CLV <sup>ori</sup> Sta
60 ... <u>exultabit</u> ...	CLV- Dij, Ult, Sta, Clu (†)
... <u>exultabit</u> ...	-VIR Dij
... <u>desiderium</u> ...	CLV Ult

13.

Intr. <i>Invocabit me</i>	Dij 607; Ult, 44v; Sta, 75r; Clu, 27v
... et <u>ego</u> ...	CLV- Ult, Sta, Clu
... et <u>ego</u> ...	-PUN Dij
... et glor <u>ificabo</u> ...	CLV Ult, Sta, Clu
... et glorificabo <u>bo</u> ...	CLV Ult, Sta, Clu

14.

Intr. <i>Iudica, Domine</i>	Dij 579; Ult, 106v; Sta, 150r; Clu, 53v
<u>Iudica</u> Domine ...	TOR Dij, Ult, Clu
Iudica Do <u>mine</u> ...	STR Ult
... nocentes <u>me</u> ...	SAL Dij
70 ... impugnantes <u>me</u> ...	SAL Dij

15.

Intr. <i>Iudica me, Deus</i>	Dij 474; Ult, 87v; Sta, 127v; Clu, 47v
<u>Iudica</u> me...	TOR Clu
... causam <u>meam</u> ...	CLV Sta (†)
... gente non sancta ...	CLV Sta, Clu (†)
... et do <u>lo</u> so ...	CLV Dij, Ult
... eripe <u>me</u> ...	CLV Sta
[... sanctum <u>tu</u> um	VIR Ult (†)

16.

Intr. <i>Laetabitur iustus</i>	Dij 612; Ult, 134v; Sta, 199v; Clu, 18v
... et <u>sperabit</u> ...	CLV- Ult, Clu
... et spera <u>bit</u> ... (end)	-PCP Dij

17.

Intr.	<i>Laetetur cor</i>	Dij 395; Ult, 83r; Sta, 121v; Clu, 45v
	... quer <u>en</u> cium ...	BIV Sta
80	... querenci <u>um</u> ... (beg.)	CLV- Ult
	... querenci <u>um</u> ... (end)	-SSP Dij
	... querite dominum ...	TOR Dij, Ult, Clu
	... querite <u>domin</u> um...(beg.)	CLV Dij
	... <u>con</u> firmamini ...	CLV Dij, Ult, Clu (†)
	... faciem <u>eius</u> ... (beg.)	CLV- Dij, Ult
	... faciem <u>eius</u> ... (end)	-SSP Dij

18.

Intr.	<i>Liberator meus</i>	Dij 448; Ult, 91v; Sta, 132v; Clu, 49v
	... ex <u>al</u> tabis me ...	CLV Dij, Ult, Sta, Clu
	... eripies me ...	CLV Dij, Ult, Clu
	... eripies <u>me</u> ...	PUN Ult

19.

Intr.	<i>Lux fulgebit</i>	Dij 603; Ult, 15r; Sta, 37v; Clu, 7r
90	Lux ful <u>ge</u> bit ...	CLV Ult, Sta
	... admir <u>a</u> bilis ...	CLV Dij, Ult, Sta, Clu
	... non <u>er</u> it finis	CLV Ult, Clu

20.

Intr.	<i>Miserere mihi... tribulor</i>	Dij 510; Ult, 94v; Sta, 136r; Clu, 51r
	... inimicor <u>um</u> meorum ...	CEP- Ult (†)
	... inimicorum <u>me</u> orum ...	-TOR Dij, Ult, Clu

21.

Intr.	<i>Nos autem</i>	Dij 468; Ult, 108v; Sta, 152v, 164v; Clu, 54r
	<u>Nos</u> autem ...	TOR Dij, Ult, Sta, Clu (†)
	Nos <u>au</u> tem ... (end)	CLV Dij, Ult, Sta, Clu (†)
	[(2nd)... misereatur <u>no</u> stri	VIR Ult (†)

22.

Intr.	<i>Omnia quae fecisti</i>	Dij 446; Ult, 93r; Sta, 134r; Clu, 50r
	... fecisti <u>no</u> bis ...	BIV Ult, Sta
	... nobis, dom <u>ine</u> ...	PSP- Dij
100	... nobis, dom <u>ine</u> ...	-CLV Dij, Ult, Sta
	... fecisti quia ...	CLV Dij, Sta, Clu
	... mandatis <u>tu</u> is ...	VIR Dij

... secund <u>um</u> ...	CLV	Dij, Clu
... multitudin <u>em</u> ...	SAL	Dij, Ult, Sta
... mis <u>er</u> icordie ...	CLV	Ult

23.

Intr. *Omnis terra adoret te* Dij 476; Ult, 28r; Sta, 53v; Clu, 14v

Om <u>n</u> is terra ...	TOR	Clu
... te, de <u>s</u> ...	CLV	Ult, Sta, Clu
... psalm <u>um</u> ...	TOR	Dij, Clu

24.

Intr. *Prope esto Domine* Dij 463; Ult, 7r; Sta, 29r; Clu, 4v

<u>Pro</u> pe ...	TOR	Dij, Ult, Sta, Clu
110 ... dom <u>i</u> ne ...	PSP-	Dij
... dom <u>i</u> ne ...	-CLV	Dij, Ult, Sta, Clu
... ver <u>i</u> tas ...	VIR	Sta
... testimoni <u>i</u> s ...	CLV	Dij, Ult
[... dom <u>i</u> ni	VIR?	Ult

25.

Intr. *Redime me Domine* Dij 335; Ult, 56v; Sta, 90r; Clu, 36r

Red <u>i</u> me ...	CLV	Ult
... mis <u>er</u> ere ...	CLV	Dij, Clu
... dom <u>i</u> num	PSP	Dij

26.

Intr. *Reminiscere* Dij 464; Ult, 49r; Sta, 80v; Clu, 30v

Remin <u>i</u> scere ...	PES [GUT]	Ult
... mis <u>er</u> acionum ...	CLV	Dij, Ult
120 ... dom <u>i</u> ne ...	PSP	Dij
... mis <u>er</u> icordie tue ...	CLV	Ult
... mis <u>er</u> icordie <u>t</u> ue ...	PSP	Dij
... dom <u>i</u> nentur ...	TOR-	Dij, Ult
... nob <u>i</u> s ...	CLV	Ult
... nob <u>i</u> s ...	-PUN	Dij
... libera nob <u>i</u> s ...	CLV	Dij
... israh <u>e</u> l ...	SSP-	Dij
... israh <u>e</u> l ...	-CLV	Dij, Clu
... angust <u>i</u> is ... (end)	QUI	Sta

27.

Intr. <i>Salus populi</i>	Dij 479; Ult, 71r; Sta, 107r; Clu, 42r
130 ... ego <u>sum</u> ...	CLV      Dij, Ult, Clu
... dicit <u>dominus</u> ...	SAL      Dij
... tribulatione ...	CLV      Dij, Clu
... illorum <u>dominus</u> ... (near beg.)	PSP      Dij
[... oris <u>mei</u>	VIR      Ult (†)

28.

Intr. <i>Sicut oculi servorum</i>	Dij 473; Ult, 46v; Sta, 77v; Clu, 29v
... <u>suorum</u> ...	CLV      Ult, Clu
[... habitas in <u>celis</u>	VIR      Ult, Sta

29.

Intr. <i>Veni et ostende nobis</i>	Dij 392; Ult, 8r; Sta, 29v; Clu, 4 <sup>bis</sup> r
<u>Veni</u> ...	PPP [GUT] Ult
... ostende ...	(qui)CLV      Dij, Ult, Sta
... faciem <u>tuam</u> ...	CEP      Ult

30.

Grad. <i>Ad Dominum</i>	Dij 797; Ult, 62r; Sta, 96v; Clu, 38r
140 ... clamavi ...	VIR      Ult
... libera animam ...	oriPUN      Dij, Ult, Sta, Clu
... <u>iniquis</u> ... (end)	CLM      Dij

31.

Grad. <i>Adiutor in oportunitatibus</i>	Dij 789; Ult, 33v; Sta, 59v; Clu, 23r
<u>Adiutor</u> in ...	[ori]PUN      Dij, Ult
... in oportunitatibus ...	CLV      Ult, Sta, Clu
... <u>non</u> derelinquis ... (end)	PRE-      Dij
... non <u>derelinquis</u> ...	-PUN-      Dij
... non <u>derelinquis</u> ...	-PUN      Dij
... <u>querentes</u> ...	CLV      Dij, Ult, Sta, Clu
... <u>domine</u> ...	TRE      Dij, Sta
150 ... Quoniam <u>non</u> ... (2nd n.)	TRE      Sta
... Quoniam <u>non</u> ... (3rd n.)	TRE      Sta
... obli <u>vio</u> ...	CLV      Dij, Ult, Sta, Clu
... <u>pauperum</u> non peribit ...	TOR <sup>ori</sup> ?      Sta
... <u>pauperum</u> non peribit ...	PRR      Dij, Sta

	... pauper <u>um</u> non peribit ...	CLV-	Dij, Ult, Clu
	... pauperum <u>non</u> peribit ...	-EPI-	Dij
	... pauperum non <u>per</u> ibit ...	-PUN	Ult
	... pauperum non <u>per</u> ibit ...	BIV	Sta
	... pauperum non <u>peribit</u> ...	POR	Dij, Ult
160	... non <u>pre</u> valeat ...	CLV	Dij, Ult, Sta, Clu
	... non <u>pre</u> valeat ...	CLV	Dij, Ult, Clu

32.

Grad. *Anima nostra* Dij 819; Ult, 21v; Sta, 44r; Clu, 10v

...	<u>nomine</u> ...	BIV	Sta
...	<u>domini</u> ... (end)	CLM-	Dij
...	<u>domini</u> ...	-CLV	Dij, Clu
...	<u>qui</u> fecit ...	BIV	Sta

33.

Grad. *Benedictus Dominus* Dij 841; Ult, 26v; Sta, 51r; Clu, 13r

	... mir <u>abilia</u> ...	SCA?[SAL]	Ult
	... magna <u>solus</u> ... (end)	TOR	Ult, Sta
	... Suscipiant <u>montes</u> ... (mid.)	quiCLV	Ult
	... <u>pacem</u> populo ... (11th n.)	TRE	Ult, Sta
170	... <u>pacem</u> populo ... (12th n.)	PES	Ult
	... pacem <u>populo</u> ...	CLV	Ult

34.

Grad. *Benedictus qui venit* Dij 830; Ult, 15v; Sta, 38r, 47r\*; Clu, 7r

	<u>Benedictus</u> qui ...	VIR	Sta (47r*)
...	<u>deus</u> dominus ...	VIR	Ult
...	deus <u>dominus</u> ...	CLV	Ult
...	et <u>illuxit</u> nobis ...	VIR	Ult
...	et <u>illuxit</u> nobis ...	EPI	Ult
...	mir <u>abile</u> ...	CLV [PRE]-	Dij, Ult, Sta, Clu
...	mirabile ...	-PUN	Dij

35.

Grad. *Bonum est confiteri* Dij 812; Ult, 64v; Sta, 99r; Clu, 39r

	... confiteri <u>domino</u> ...	CLV	Dij, Sta, Clu
180	... nomini <u>tuo</u> ... (end)	CLM-	Dij
...	<u>altissime</u> ...	-CLV	Dij, Ult, Sta, Clu
...	Ad <u>annuntiandum</u> ...	VIR	Ult
...	<u>miser</u> icordiam ...	BIV	Ult



36.

Grad. <i>Ego autem</i>	Dij 781; Ult, 108v; Sta, 153r; Clu, 54r	
E <u>go</u> autem, dum ...	PES	Sta
Ego <u>au</u> tem, dum ...	SAL	Dij
Ego <u>autem</u> , dum ...	SAL-	Dij
Ego autem, <u>dum</u> ...	-PES	Dij
... indu <u>eb</u> am me ...	CLV <sup>ori</sup>	Dij, Ult, Sta
... indu <u>ebam</u> me ...	GUT-	Dij, Sta
190 ... <u>cilicio</u> ...	-PUN <sup>qui</sup>	Dij
... humili <u>a</u> bam ... (end)	CLM	Dij
... in sinu meo ... (end)	quiCLM	Dij
... et scutu <u>m</u> ... (mid.)	TRI	Dij, Ult
... adiutoriu <u>m</u> ... (end)	quiCLV	Dij, Ult, Sta, Clu

37.

Grad. <i>Eripe me</i>	Dij 785; Ult, 88r; Sta, 128r; Clu, 47v	
E <u>ri</u> pe me ...	quiCLV	Clu
... de in <u>imicis</u> ...	SAL	Dij, Sta
... do <u>ce</u> me ...	CLV	Dij, Ult, Sta, Clu
... facere ... (end)	PRE	Dij
... volunt <u>at</u> em tuam...(end)	POR	Dij, Sta
200 ... voluntatem <u>tu</u> am...(end)	QPP	Sta
Liberator me <u>us</u> ... (3rd n.)	POR-	Dij
Liberator me <u>us</u> ... (4th n.)	-CLV <sup>ori</sup>	Dij, Ult, Sta
Liberator me <u>us</u> ... (11th n.)	CLV	Dij
... dom <u>ine</u> , de gentibus ...	CLV-	Dij, Ult, Sta, Clu
... domine, <u>de</u> gentibus ...	-PUN	Dij, Ult
... domine, de gentib <u>us</u> ...	CLV <sup>gut</sup> -	Dij, Ult, Sta, Clu
... iracundis ... (2nd n.)	-CLV	Dij, Sta
... iracundis ... (end)	PRE	Dij
... exaltabis <u>me</u> ...	gutPUN	Dij
210 ... iniquo ... (end)	CLM	Dij

38.

Grad. <i>Exaltabo te</i>	Dij 787; Ult, 92r; Sta, 133r; Clu, 49v	
Exalt <u>a</u> bo te ...	quiCLV	Dij, Clu (†)
... quoniam ... (end)	quiCLV	Clu
... delectasti ... (end)	CLV	Dij, Clu
... Domine deus ...	SAL	Dij, Sta
... sanasti me ...	VIR	Clu
... sanasti me ... (end)	CLV	Dij
... sanasti me ...	CLV	Dij, Ult, Sta, Clu
... domine, abstraxisti...(4th n.)	quiCLV-	Ult, Sta

...	<u>domine</u> , abstraxisti...(6th n.)	-POR	Ult, Sta
220	... dom <u>ine</u> , abstraxisti ... (end)	PRE-	Dij
	... domine, <u>ab</u> straxisti ...	-PES	Dij
	... in <u>feris</u> animam ... (end)	CLM-	Dij
	... inferis <u>a</u> nimam ...	-PES	Dij

39.

Grad.	<i>Exurge... fer opem</i>	Dij 775; Ult, 80r; Sta, 118r; Clu, 44r
	Ex <u>ur</u> ge domine ...	TOR Dij, Ult, Sta, Clu
	... <u>fer</u> opem nobis ...	TOR Sta
	... opem <u>n</u> obis ... (2nd n.)	CLV Dij, Ult, Sta
	... et <u>l</u> ibera nos ... (end)	TOR Sta (Ult miss.)
	... <u>D</u> eus, auribus ...	TOR Ult, Sta, Clu
	... Deus, au <u>r</u> ibus ...	PRR Dij (Ult miss.)
230	... patres <u>n</u> ostri ... (end)	CLM Dij (Ult miss.)
	... annuntia <u>v</u> erunt ... (end)	PRE- Dij
	... <u>n</u> obis ... (beg.)	-CLV Dij (Ult miss.)
	... <u>o</u> pus, quod ... (beg.)	TOR Sta, Clu
	... opus, quod <u>o</u> peratus ...	VIR Sta
	... diebus <u>a</u> ntiquis (end)	STR Sta

40.

Grad.	<i>Exurge... non praeualeat</i>	Dij 784; Ult, 66r; Sta, 101r; Clu, 39v
	Ex <u>ur</u> ge domine	quiCLV Dij, Ult, Sta, Clu
	... <u>h</u> omo: iudicentur...(2nd n.)	POR Ult, Sta
	... <u>h</u> omo: iudicentur...(mid.)	PSP Dij
	... homo: iudic <u>e</u> ntur...(2nd n.)	CLVori Dij
240	... in cons <u>p</u> ectu ...	CLVori Dij
	... In convert <u>e</u> ndo ... (end)	quiPOR- Ult, Sta
	... In convert <u>e</u> ndo	-CLV Clu
	... in <u>i</u> micum meum ...	GUT- Dij, Ult, Sta
	... inimicum <u>m</u> eum ...	-CLV Dij, Ult
	... et <u>p</u> erient ...	TOR Dij, Clu

41.

Grad.	<i>Miserere mihi, Domine</i>	Dij 840; Ult, 70r; Sta, 106r; Clu, 41v
	... in <u>f</u> irmus sum ...	PSP Dij
	... ossa <u>m</u> ea ... (end)	quiCLV Dij, Ult, Clu
	... ossa <u>m</u> ea ... (penult. n.)	CLM- Dij
	... ossa <u>m</u> ea ... (end)	-CLV Sta

42.

Grad. <i>Misit Dominus</i>	Dij 826; Ult, 28v; Sta, 54r; Clu, 14v	
250 ... et eripuit ...	BIV	Sta
... eripuit <u>eos</u> ... (end)	CLM	Dij
... et mirabilia ...	BIV	Sta
... <u>eius</u> ... (end)	CLM	Dij
... <u>hominum</u>	CLV	Ult, Sta, Clu

43.

Grad. <i>Oculi omnium</i>	Dij 847; Ult, 71v; Sta, 107v; Clu, 42r	
<u>Oculi</u> omnium ...	QPP	Sta (†)
... et tu <u>das</u> illis ...	CLV	Dij, Ult, Sta, Clu
... et tu das <u>illis</u> ... (end)	oriTOR	Dij, Ult
... in <u>tempore</u> ... (end)	GUT	Ult (†)
... <u>manum</u> tuam ...	CLV	Ult (prim.), Sta

44.

Grad. <i>Posuisti, Domine</i>	Dij 754; Ult, 135r; Sta, 199v; Clu, 18v	
260 ... tribuisti <u>ei</u> ... (2nd n.)	PES	Ult, Sta
... <u>et</u> voluntate ...	VIR	Sta
... labiorum <u>eius</u> ... (beg.)	PES	Ult, Sta

45.

Grad. <i>Qui sedes</i>	Dij 849; Ult, 5r; Sta, 26v; Clu, 3v	
... super <u>cherubim</u> ...	TOR	Ult
... <u>deducis</u> ... (end)	PES [GUT]	Ult

46.

Grad. <i>Sciant gentes</i>	Dij 760; Ult, 36v; Sta, 63r; Clu, 24r	
... tibi <u>deus</u> ... (2nd n.)	TOR	Dij
... <u>pone</u> illos ...	CLV	Dij, Ult, Sta, Clu

47.

Grad. <i>Speciosus forma</i>	Dij 788; Ult, 22v; Sta, 45r; Clu, 12v	
<u>Speciosus</u> forma ...	TOR	Dij, Ult, Sta, Clu
... <u>pre</u> filiis hominum ...	TOR	Ult, Sta
... <u>hominum</u> ... (near beg.)	CLV	Ult, Sta
270 ... <u>diffusa</u> est gratia ...	TOR	Sta
... Eructavit cor ...	quiPOR-	Sta
... Eructavit cor ...	-CLV	Sta, Clu
... meum <u>verbum</u> ... (end)	CLV	Dij, Clu
... meum <u>verbum</u> ... (end)	PRE-	Dij, Clu
... meum <u>verbum</u> ...	-PUN	Dij

	... dico <u>ego</u> ... (end)	PRR?-	Dij
	... dico <u>ego</u> ...	-CLV	Dij, Ult, Clu
	... <u>opera</u> mea ...	TOR-	Dij, Ult, Sta, Clu
	... <u>opera</u> mea ...	-VIR-	Dij
280	... <u>opera</u> mea ...	-VIR	Dij
	... opera <u>mea</u> ... (end)	PRE-	Dij, Clu
	... opera <u>mea</u> ...	-PUN	Dij

48.

Grad.	<i>Tenuisti manum</i>	Dij 779; Ult, 101v; Sta, 143r; Clu, 52r
	... manum <u>dexteram</u> ...	TOR Dij, Ult, Sta, Clu (†)
	... in <u>voluntate</u> tua ...	CLV- Dij, Ult, Sta, Clu (†)
	... in voluntate <u>tua</u> ...	-POR- Dij, Ult, Sta
	... in voluntate <u>tua</u> ... (end)	-CLV Dij, Ult, Sta, Clu (†)
	... <u>deduxisti</u> me ...	TOR Dij, Ult, Sta, Clu (†)
	... <u>assumpsisti</u> me ...	CLV Dij, Sta, Clu (†)
	... assumpsisti <u>me</u> ... (6th n.)	CLM Dij
290	... Quam <u>bonus</u> ... (end)	quiPOR Dij, Sta
	... israhel <u>deus</u> ... (6th n.)	POR Sta
	... autem <u>pene</u> ...	CLV Dij, Ult, Sta, Clu
	... sunt <u>pedes</u> ... (3rd n.)	PES Dij, Sta
	... effusi sunt ...	PRR- Dij, Ult (†)
	... effusi <u>sunt</u> ...	-CLV Dij, Ult, Sta, Clu
	... in peccatoribus... (2nd n.)	POR Dij, Ult
	... peccatorum videns (end)	quiCLV Ult, Sta, Clu

49.

Grad.	<i>Tollite portas</i>	Dij 776; Ult, 6r; Sta, 27v; Clu, 4r
	... et introi <b>bit</b> rex ... (beg.)	(qui)CLV Ult
	... montem domini <b>ni</b> ... (beg.)	PSP Dij

50.

Grad.	<i>Tu es Deus</i>	Dij 782; Ult, 38r; Sta, 66v; Clu, 25r
300	... qui facis mirabilia ...	PUN- Dij
	... <u>mirabilia</u> ...	-GUT- Dij
	... <u>mirabilia</u> ...	-PUN Dij
	... <u>mirabilia</u> ... (end)	POR Sta
	... virtutem <u>tuam</u> ...	QPP Sta
	... <u>populum</u> tuum ... (mid.)	POR Sta

... <u>populum tuum</u> ...	PRE	Ult, Sta
... <u>israhel</u> ... (5th n.)	CLV <sup>ori</sup>	Ult, Sta
... et <u>ioseph</u> (beg.)	SAL	Dij

## 51.

Tract. *Commovisti* Dij 739; Ult, 36v; Sta, 63v; Clu, 24v

Commov <u>isti</u> ... (end)	QUI	Sta
310 ... conturbasti <u>eam</u> ...(9th n.)	CLV	Dij, Ult, Clu
... quia <u>mota</u> est ...	oriVIR	Sta
... Ut fugiant ... (end)	QUI	Sta
... ut liberentur ... (end)	TRE	Ult, Sta
... electi tui (beg.)	CLV	Dij

## 52.

Tract. *Desiderium* Dij 745; Ult, 144r; Sta, 208r; Clu, 20v

... tribuisti ei ...	TOR	Dij, Ult, Sta, Clu
... labiorum eius ...	POR	Ult, Sta
... fraudasti eum ... (9th n.)	CLV	Dij, Ult, Sta, Clu
... prevenisti eum ... (end)	CLV	Ult, Sta
... in benedictione ...	TOR	Dij, Ult, Sta, Clu
320 ... in benedictione...(5th n.)	CLV	Dij, Ult, Sta, Clu
... in benedictione ... (end)	quiVIR	Sta
... dulcedinis ... (2nd n.)	TOR	Dij
... Posuisti super ...	SAL	Ult
... coronam ...	TRE	Ult, Sta (†)
... pretioso (mid.)	quiPOR	Ult, Sta (Dij. miss)

## 53.

Tract. *Deus, Deus meus* Dij 963; Ult, 101v; Sta, 143v; Clu, 52r

De <u>us</u> , deus ... (6th n.)	POR	Dij, Ult, Sta
De <u>us</u> , deus ... (9th n.)	quiCLV	Dij, Ult, Sta
... quare <u>me</u> ... (beg.)	CLV-	Dij
... dereliquisti ... (beg.)	-PUN	Dij
330 ... a <u>salute</u> ...	CLV	Dij, Sta
... verba delictorum...(beg.)	(qui)CLV-	Dij
... verba delictorum ...	-CLV	Dij, Ult, Sta
... meorum ...	CLV	Dij, Ult
... meorum ... (mid.)	PSP	Dij
... Deus meus clamabo ...	TOR	Dij, Ult, Sta (†)
... meus clamabo ... (mid.)	SSP	Dij
... per diem ...	CEP	Dij
... et non ... (beg.)	CLV	Dij

	... insipientiam ...	quiCLV	Dij, Ult, Sta, Clu (†)
340	... Tu <u>autem</u> ... (end)	quiPOR	Dij
	... laus <u>israhel</u> ...	QUI	Sta
	... laus <u>israhel</u> ... (mid.)	quiCLV	Dij, Sta
	... In <u>te</u> speraverunt ...	VIR	Ult
	... In te <u>speraverunt</u> ...	PES [GUT]	Dij, Ult
	... speraverunt, et...(beg.)	(qui)CLV	Dij
	... liberasti eos ... (beg.)	PUN	Dij
	... clamaverunt ... (2nd n.)	PES-	Dij, Sta
	... clamaverunt ... (mid.)	-SSP	Dij
	... in <u>te</u> speraverunt ...	PES [GUT]	Ult
350	... speraverunt ... (beg.)	(qui)CLV	Dij
	... sunt <u>confusi</u> ...	CEP	Dij
	... Ego <u>autem</u> ... (end)	quiPOR	Dij
	... ob <u>probrium</u> ...	PES [GUT]	Ult
	... <u>hominum</u> ... (beg.)	(qui)CLV	Dij
	... et abiectio ...	CLV	Dij, Ult
	... videbant <u>me</u> ... (beg.)	PSP	Dij
	... locuti sunt ...	PES [GUT]	Ult
	... labiis ... (beg.)	CLV	Dij
	... et moverunt ...	CEP	Dij
360	... Speravit in <u>domino</u> ...(beg.)	PSP	Dij
	... eripiat eum ...	CLV	Dij
	... saluum <u>faciat</u> ...	GUT	Ult
	... <u>eum</u> , quoniam ... (beg.)	(qui)CLV	Dij
	... quoniam <u>vult</u> ...	CEP	Dij
	... <u>diviserunt</u> sibi ...	GUT	Ult
	... <u>diviserunt</u> <u>sibi</u> ... (beg.)	(qui)CLV	Dij
	... vestem <u>meam</u> ... (beg.)	PCP	Dij
	... de <u>ore</u> ... (beg.)	CLM	Dij
	... unicornium ... (beg.)	(qui)CLV	Dij
370	... semen <u>Iacob</u> ... (beg.)	(qui)CLV	Dij
	... <u>magnificate</u> eum ... (beg.)	PUN	Dij
	... <u>generatio</u> ...	CLV	Ult, Sta
	... iusticia <u>eius</u> ... (3rd n.)	PSP	Dij

54.

Tract.	<i>Qui habitat</i>	Dij 962; Ult, 45r; Sta, 75v; Clu, 28r
	Qui <u>habitat</u> ... (2nd n.)	POR Sta
	... <u>susceptor</u> ...	CLV Sta
	... et <u>refugium</u> ...(2nd n.)	PES Sta
	... et <u>refugium</u> ...(end)	CRE Ult
	... <u>sperabo</u> in ...	CLV- Ult, Sta

	... sperabo <u>in</u> ...	-CLV	Ult, Sta
380	... suis <u>ob</u> umbrabit ...	CLV?	Ult
	... timore <u>no</u> cturno ...	CLV	Dij, Ult, Sta
	... <u>A</u> sagitta ...	CLV	Ult
	... peramb <u>u</u> lante ...	CLV	Dij, Ult, Sta, Clu
	... et <u>d</u> emonio ...	CLV	Ult, Clu
	... meridi <u>a</u> no ... (penult. n.)	CLM	Dij
	... <u>a</u> dextris tuis ...	quiCLV	Dij, Ult
	... a dextris tuis ...	quiCLV	Dij, Ult, Clu
	... mandav <u>i</u> t ...	CLV	Ult
	... <u>S</u> uper aspidem ...	TOR	Ult, Sta
390	... <u>et</u> draconem ...	CEP	Ult
	... et draconem ... (5th n.)	CLM	Dij
	... liber <u>a</u> bo ...	CLV	Ult, Sta
	... cogn <u>o</u> vit ...	GUT	Ult
	... ego exaudiem ... (1st n.)	CLM	Dij
	... ego exaudiem ...	CLV	Dij
	... ipso <u>sum</u> ... (beg.)	(qui)CLV	Dij
	... Eripiam eum ... (2nd n.)	PES	Sta
	... Eripiam eum ... (3rd n.)	SSP	Dij
	... et glorificabo ...	CLV	Dij, Ult, Sta
400	... longit <u>u</u> dine ... (2nd n.)	PES	Sta
	... longit <u>u</u> dine ... (end)	CRE	Ult (Dij miss.)
	... ad implebo ...	CEP	Dij, Sta
	... et ostend <u>a</u> m ...	PES [GUT]	Ult

## 55.

Of. *Benedicam Dominum* Dij 860; Ult, 58v; Sta, 91r, ii-79v; Clu, 36r

	... quon <u>i</u> am a ...	quiCLV	Dij, Ult, Sta, Clu
	... quoniam a ... (beg.)	TOR	Ult
	... <u>est</u> mihi ...	VIRqui	Ult, Sta
	<... quoniam in ...	CLV	Dij
	<... hereditatis ...	CLV	Clu
	<... vias <u>vit</u> ae ... (end)	CLM	Dij
410	<... <u>et</u> delectationes ...	quiCLV	Dij, Clu

## 56.

Of. *Benedictus es... et non tradas* Dij 953; Ult, 95r; Sta, 137r; Clu, 51v

	Benedictus <u>es</u> , domine ...	quiCLV	Ult, Clu
	Benedictus es, domine ...	CLV-	Dij, Ult, Sta, Clu
	... doce me ...	-CLV	Dij, Ult, Clu
	... iustificati <u>o</u> nes ... (end)	CLM <sup>ori</sup>	Dij

	... et non <u>tradas</u> ...	GUT	Dij
	... calumpniantib <u>us</u> me ...	PEL	Ult
	... superbis ...	CLV	Ult
	... exprobantib <u>us</u> mihi ... (end)	quiCLV-	Dij, Clu
	... exprobantibus <u>mihi</u> ... (end)	-CLM	Dij
420	<... Vidi <u>non</u> servantes ...	EPI	Dij
	<... et <u>tabescebam</u> ...	CLV	Dij, Clu
	<... quia <u>iniuste</u> ...	CLV	Dij, Clu
	<... <u>fecerunt</u> ...	quiCLV	Dij

57.

Of. *Benedictus es... in labiis*      Dij 907; Ult, 39r; Sta, 67v; Clu, 25v

	Benedictus <u>es</u> ...	quiCLV	Sta, Clu
	... (1st) domine, doce ...	CLV-	Ult, Clu
	... (1st) domine, <u>doce</u> ...	-CLV	Dij, Ult, Clu
	... benedictus <u>es</u> ...	quiCLV	Ult, Clu
	... (2nd) domine, doce ...	CLV-	Ult, Sta, Clu
	... (2nd) domine, <u>doce</u> ...	-CLV-	Dij, Ult, Clu
430	... doce <u>me</u> ...	-CLV	Dij
	... <u>tuas</u> : in ... (end)	quiCLV	Dij, Clu
	<... <u>ambulant</u> in lege ...	CLV-	Dij, Clu
	<... ambulant <u>in</u> lege ...	-?-	Dij
	<... ambulant in <u>lege</u> ...	-GUT-	Dij
	<... ambulant in <u>lege</u> ...	-PUN	Dij
	<... in lege domini ...	CLV	Clu
	<... <u>qui</u> scrutantur ...	GUT-	Dij
	<... qui <u>scrutantur</u> ...	-PUN	Dij
	<... <u>in</u> toto corde ...	PES [GUT]-	Dij
440	<... in <u>toto</u> corde ...	-PES [GUT]-	Dij
	<... in <u>toto</u> corde ...	-PUN	Dij
	<... <u>exquirunt</u> ...	GUT-	Dij
	<... <u>exquirunt</u> ...	-PES [GUT]-	Dij
	<... <u>exquirunt</u> ...	-PUN	Dij
	<... a <u>plebe</u> ...	SSP	Dij
	<... contemptum, quia ...	CLV-	Dij, Clu
	<... contemptum, <u>quia</u> ...	-GUT-	Dij
	<... contemptum, <u>quia</u> ...	-PUN	Dij
	<... <u>testimoniorum</u> ...	GUT	Dij
450	<... <u>testimoniorum</u> ...	GUT	Dij
	<... <u>tuorum</u> ...	CLV	Dij, Clu
	<... iniquitatis ...	PUN	Dij
	<... <u>domine</u> ...	BIV	Dij
	<... (1st) amove <u>a</u> me ...	SAL	Dij



- |                                     |      |     |
|-------------------------------------|------|-----|
| <... (1st) amove a <u>me</u> ...    | SAL  | Dij |
| <... (2nd) amove <u>a</u> me ...    | SAL  | Dij |
| <... (2nd) amove a <u>me</u> ...    | SAL  | Dij |
| <... (2nd) iudicia tua <u>a</u> ... | CLV- | Clu |
| <... <u>non</u> sum ...             | -EPI | Dij |
| 460 <... mand <u>a</u> torum ...    | PUN- | Dij |
| <... mand <u>a</u> torum ...        | -GUT | Dij |
- 58.
- Of. *Bonum est confiteri*      Dij 946; Ult, 34v; Sta, 61r; Clu, 23v
- |  |        |               |
|--|--------|---------------|
| ... et psallere nomini ...             | CLV    | Dij, Ult, Sta |
| ... et psallere nomini <u>i</u> ...    | oriPUN | Dij, Ult, Sta |
| <... cogitation <u>es</u> ...          | quiCLV | Dij, Clu      |
| <... Ecce inimici tui ...              | CLV    | Dij, Clu      |
| <... dom <u>i</u> ne ...               | CLV    | Dij, Clu      |
| <... iniquitat <u>e</u> m ... (2nd n.) | PSP    | Dij           |
| <... insurgentes <u>i</u> n me ...     | CLV    | Dij           |
| <... malignant <u>es</u> ... (2nd n.)  | quiCLV | Dij           |
| 470 <... audi <u>vi</u> t ... (end)    | CLV    | Dij, Clu      |
- 59.
- Of. *Custodi me, Domine*      Dij 864; Ult, 112r; Sta, 157r; Clu, 54r
- |                                 |     |                 |
|---------------------------------|-----|-----------------|
| ... homin <u>i</u> bus...       | CLV | Ult, Sta        |
| ... eripe <u>me</u> ...         | PUN | Sta             |
| <... exaudi, <u>dom</u> ine ... | ?   | Dij (Clu miss.) |
- 60.
- Of. *Deus enim firmavit*      Dij 951; Ult, 16r; Sta, 38v; Clu, 7v
- |  |        |               |
|--|--------|---------------|
| ... parata <u>sed</u> es tua...(beg.)          | CLV    | Dij           |
| <... et precin <u>xi</u> t se ...              | CLV    | Dij, Ult, Clu |
| <... et precin <u>xi</u> t <u>se</u> ... (end) | quiCLV | Dij, Ult, Clu |
| <... virt <u>u</u> te ... (end)                | PSP-   | Dij           |
| <... virtute ... (3rd n.)                      | -CLV   | Dij           |
| <... <u>facta</u> sunt ...                     | VIR    | Ult           |
| 480 <... dierum (27th n.)                      | CRE    | Ult           |
- 61.
- Of. *Dextera Domini*      Dij 869; Ult, 31r; Sta, 105r, 166r ; Clu, 18r
- |                               |     |                      |
|-------------------------------|-----|----------------------|
| ... (2nd) <u>dex</u> tera ... | BIV | Sta (105r)           |
| ... (2nd) dexter <u>a</u> ... | CLV | Ult, Sta (166r), Clu |
| <... <u>lat</u> itudine ...   | CLV | Clu                  |

62.

Of. <i>Diffusa est gratia</i>	Dij 932; Ult, 141; Sta, 203r; Clu, 19v
... <u>gratia</u> ... (end)	CLM      Dij
... in <u>labiis</u> ... (end)	PSP      Dij
... te <u>deus</u> ...	CLV-      Dij, Ult, Sta, Clu (†)
... te <u>deus</u> ...	-PUN      Dij
<... et <u>intende</u> ... (end)	CLM      Dij, Clu

63.

Of. <i>Domine, Deus salutis</i>	Dij 931; Ult, 55v; Sta, 88v; Clu, 35r
... in <u>conspectu</u> tuo ...	TOR-      Dij, Ult, Sta, Clu
490 ... in <u>conspectu</u> tuo ...	VIR      Ult (†)
... in conspectu <u>tuo</u> ...	-CLV      Dij, Ult, Sta, Clu
<... aurem <u>tuam</u> ...	PSP-      Dij
<... aurem <u>tuam</u> ...	-PUN      Dij
<... tota <u>die</u> ... (beg.)	CLV      Dij, Clu
<... (2nd) ad te <u>domine</u> ...	PUN      Clu (†)
<... <u>clamavi</u> ... (beg.)	PSP      Dij
<... in <u>laboribus</u> ... (end)	PRE      Dij, Clu (†)
<... <u>mortuos</u> liber ... (beg.)	CLV      Dij
<... <u>mortuos</u> <u>liber</u> ... (end)	quiCLV      Dij, Clu
500 <... <u>egrediebar</u> ...	CLV      Dij, Clu
<... <u>egrediebar</u> ... (17th n.)	quiCLV-      Dij, Clu
<... <u>egrediebar</u> ... (19th n.)	-CLV-      Dij
<... <u>egrediebar</u> ... (20th n.)	-VIR      Dij

64.

Of. <i>Domine, fac mecum</i>	Dij 902; Ult, 71r; Sta, 107r; Clu, 41v
... <u>mecum</u> ... (end)	quiPOR      Dij, Sta
... <u>mecum</u> ...	TOR      Dij
... <u>miseri</u> cordiam ...	CLV      Dij, Ult
... <u>miseri</u> cordiam ... (beg.)	PUN <sup>clv</sup> Dij
... <u>miseri</u> cordiam <u>tuam</u> ...	CLV      Sta
... <u>tuum</u> : quia ... (end)	TOR      Dij, Ult, Clu
510 ... <u>tuum</u> : quia ...	TOR      Ult
<... <u>Deus</u> laudem ...	GUT-      Dij (†)
<... <u>Deus</u> laudem ...	-PUN-      Dij
<... Deus <u>laudem</u> ...	-EPI-      Dij
<... Deus <u>laudem</u> ...	-PUN-      Dij
<... <u>meam</u> ...	-GUT-      Dij (†)
<... <u>meam</u> ...	-PUN      Dij
<... <u>peccatoris</u> ... (end)	TOR-      Dij

	<... <u>et</u> dolosi ...	-EPI	Dij
	<... et <u>dolosi</u> ...	PES	Dij
520	<... et <u>dolosi</u> ...	PES	Dij
	<... <u>Pro</u> eo ...	PES [GUT]	Dij
	<... Pro <u>eo</u> ...	GUT	Dij (†)
	<... detra <u>he</u> bant ... (end)	quiCLV	Dij, Clu
	<... ora <u>ba</u> m (end)	TOR	Clu

65.

Of. *Domine, vivifica me* Dij 910; Ult, 43v; Sta, 73v; Clu, 27v

	... vivifica <u>me</u> ... (end)	quiPOR-	Ult, Sta
	... vivifica <u>me</u> ...	-CLV	Ult, Clu
	... ut <u>sciam</u> ... (end)	quiCLV	Ult, Sta, Clu
	<... <u>Fac</u> cum servo ...	CLV	Clu
	<... cum <u>servo</u> tuo ...	CLV	Dij
530	<... cum servo <u>tuo</u> ...	CLV	Dij
	<... de ore <u>meo</u> ... (end)	CLV	Dij, Clu
	<... in <u>bene</u> placito ...	CLV-	Dij, Clu
	<... in <u>bene</u> placito ... (beg.)	-CLV	Dij

66.

Of. *Eripe me... Deus* Dij 955; Ult, 92v; Sta, 134r; Clu, 50r

	<u>Eripe</u> me ... (4th n.)	TRI	Sta
	... de inimicis <u>meis</u> ... (beg.)	CLV	Ult, Sta
	... insurgent <u>ib</u> us ...	CLV	Dij, Ult, Sta, Clu
	<... <u>fortes</u> in me ... (beg.)	CLV	Dij, Clu
	<... <u>adiutor</u> meus ... (mid.)	TRE	Dij
	<... <u>adiutor</u> meus ...	(qui)CLV	Dij, Clu
540	<... adiutor <u>meus</u> ...	CLV	Clu

67.

Of. *Eripe me... Domine* Dij 899; Ult, 108r; Sta, 152r; Clu, 53v

	... <u>facere</u> voluntatem...(end)	quiCLM-	Dij
	... <u>facere</u> voluntatem ...	-CLV	Dij, Ult, Sta, Clu
	... <u>facere</u> <u>vol</u> untatem ...	GUT	Dij, Ult (†)
	... tu <u>am</u> : quia deus ...	PUN-	Ult
	... tuam: <u>quia</u> deus ...	-GUT	Dij, Ult, Sta (†)
	... tuam: quia <u>deus</u> ...	CLV-	Dij, Ult, Clu
	... tuam: quia <u>deus</u> ...	-TRE	Dij

68.

Of. <i>Exaltabo te Domine</i>	Dij 871; Ult, 41v; Sta, 70v; Clu, 26v
... et <u>san</u> asti me ...	quiCLV Clu
<... <u>Dom</u> ine abstraxisti ...	CLV Clu
550 <... <u>infer</u> is animam ...	CLV Dij, Clu
<... <u>animam</u> ... (beg.)	quiCLV- Dij
<... <u>animam</u> ... (2nd n.)	-CLV Dij

69.

Of. <i>Exaudi, Deus, orationem</i>	Dij 329; Ult, 68v; Sta, 103v; Clu, 40v
... et ne <u>des</u> pexeris ...	TOR Sta
... deprecationem...	CLV Ult, Sta
... deprecationem <u>meam</u> ...	CLV Sta
... et <u>ex</u> audi me ...	TOR Ult, Sta, Clu
<... retribuendo illis (beg.)	CLV Clu

70.

Of. <i>Exulta satis</i>	Dij 906; Ult, 11r; Sta, 33r; Clu, 4 <sup>bis</sup> v
Exulta <u>satis</u> ...	CLV Dij, Ult, Sta
... Iherusa <u>lem</u> ...	BIV Sta
560 <... Loquet <u>ur</u> ...	quiPUN Dij
<... Quia <u>ecce</u> ... (2nd. n.)	PSP Dij
<... <u>venio</u> ...	PSP?- Dij
<... <u>venio</u> ...	-CLV Dij, Clu

71.

Of. <i>Factus est Dominus</i>	Dij 887; Ult, 87v; Sta, 127r; Clu, 47r
... firmamentum <u>meum</u> ...	CLV Sta
<... et supplant <u>asti</u> ... (beg.)	SAL Dij
<... (2nd) <u>inimicos</u> meos ...	PES [GUT]- Dij
<... <u>meos</u> ... (beg.)	-CLV Dij
<... <u>inimicorum</u> meorum ...	PES [GUT] Dij
<... <u>meorum</u> ... (beg.)	CLV Dij
570 <... et odient <u>es</u> me ...	SAL Dij
<... et odient <u>es</u> me ...	SAL Dij
<... et odientes <u>me</u> ...	SAL Dij
<... disper <u>di</u> disti (14th n.)	CLV Dij
<... disper <u>di</u> disti (17th n.)	CLM Dij

72.

Of. <i>Gressus meos</i>	Dij 938; Ult, 76v; Sta, 113v; Clu, 43v
... <u>secun</u> dum ... (9th n.)	QUI Sta
... elo <u>qui</u> um ...	quiCLV Sta, Clu (†)

	<... Cognovi <u>domine</u> ... (mid.)	quiTOR	Dij
	<... <u>quia</u> aequitas ...	CLV	Dij, Clu
	<... et in <u>veritate</u> ...	TOR	Dij
580	<... <u>humili</u> asti me ...	PES	Clu

## 73.

	Of. <i>Immittet angelus Domini</i>		Dij 952; Ult, 52r; Sta, 84r; Clu, 32r
	... et <u>eripiet</u> eos ...	CLV	Dij, Ult, Clu
	... et <u>eripiet</u> eos ...	quiCLV-	Dij, Ult, Clu
	... et eripiet <u>eos</u> ... (end)	-CLM-	Dij
	... et eripiet eos: <u>gustate</u> ...	-CLV-	Dij, Ult, Clu
	... et <u>videte</u> ...	-TOR	Ult
	<... nomen <u>eius</u> ...	CLV	Dij, Clu
	<... Accedite <u>ad</u> eum ...	TOR-	Dij, Clu
	<... ad <u>eum</u> ... (beg.)	-VIR	Dij
	<... <u>vestri</u> non ... (end)	PRR	Dij
590	<... <u>vestri</u> non erubescant ...	CLV-	Dij, Clu
	<... vestri <u>non</u> erubescant ...	-PES [GUT]-	Dij
	<... vestri non <u>erubescant</u> ...	-GUT	Dij
	<... <u>clamavit</u> et ...	TOR-	Dij, Clu
	<... <u>clamavit</u> et ... (beg.)	-VIR	Dij
	<... clamavit <u>et</u> ...	TOR	Dij, Clu
	<... <u>liberavit</u> ...	quiCLV	Clu

## 74.

	Of. <i>Improperium expectavit</i>		Dij 939; Ult, 106r; Sta, 150r; Clu, 53r
	... et <u>miseriam</u> ...	quiCLV	Ult, Sta
	... et <u>sustinui</u> ... (end)	CLV [PRE]	Clu
	... et <u>sustinui</u> ...	CLV	Dij, Ult, Clu
600	... qui <u>simul</u> ...	CLV-	Dij, Ult, Clu
	... <u>contristaretur</u> ...	-GUT	Dij, Ult
	... <u>contristaretur</u> ...	GUT	Dij, Ult, Sta
	... et non <u>fuit</u> ...	VIR	Ult, Sta
	... consolantem <u>me</u> ...	TOR	Dij <sup>2</sup>
	<... <u>quoniam</u> intraverunt ...	CLV-	Dij, Clu
	<... <u>quoniam</u> intraverunt... (beg.)	-CLV	Dij
	<... <u>quoniam</u> <u>intraverunt</u> ...	CLV	Dij
	<... <u>aque</u> usque ... (3rd n.)	TOR	Dij, Clu (†)
	<... in <u>me</u> psallebant ...	PSP	Dij
610	<... <u>beneplaciti</u> ...	PUN	Clu

75.

Of. <i>In te speravi</i>	Dij 854; Ult, 48v; Sta, 80r; Clu, 30r	
... deus <u>meus</u> ...	prCLV	Dij, Clu
... in <u>manibus</u> ...	POR	Ult
<... et <u>salvum</u> me ...	CLV	Dij, Clu
<... filior <u>um</u> ...	CLV	Dij, Clu

76.

Of. <i>Iubilate Deo omnis terra</i>	Dij 921; Ult, 27r; Sta, 51v, 117r; Clu, 13v	
... (1st) <u>omnis</u> terra ...	CEP	Ult
... servite <u>domino</u> ... (beg.)	BIV	Sta
... dominus <u>ipse</u> ... (end)	QUI	Sta
... dominus <u>ipse</u> ...	CLV	Sta, Clu
<... oves <u>pascue</u> ...	CLV	Dij, Clu
620 <... quon <u>iam</u> suavis ...	CLV-	Dij, Clu
<... quoniam <u>suavis</u> ...	-TOR	Dij, Clu
<... in <u>seculum</u> ...	CLV	Dij

77.

Of. <i>Iubilate Deo universa terra</i>	Dij 861; Ult, 29r; Sta, 54v, ii-49v; Clu, 14v	
... <u>terra</u> : psalmum ... (end)	quiCLV	Dij, Ult, Sta, Clu
... quanta fecit ...	CLV	Dij, Sta, Clu
<... (2nd) vota <u>mea</u> ... (end)	quiCLV	Dij, Clu
<... (2nd) tribulatione <u>mea</u> ... (end)	quiCLV	Dij, Clu

78.

Of. <i>Perfice gressus meos</i>	Dij 883; Ult, 37r; Sta, 64r, ii-81v; Clu, 24v	
<u>Perfice</u> gressus ...	TOR-	Dij, Ult, Sta, Clu
... <u>meos</u> ...	-CLV	Ult, Sta
... vestigia <u>mea</u> ...	CLV	Dij, Ult, Clu
630 ... <u>inclina</u> ...	PSP	Dij
... <u>mirifica</u> ...	CLV <sup>ori</sup>	Ult, Sta
... qui <u>salvos</u> ...	PSP	Clu
<... Custodi me ...	TOR	Dij, Clu
<... Custodi me domine ...	CLV	Clu
<... eripe me domine ...	PRR	Dij
<... in conspectu ...	SAL	Dij
<... manifestabitur ...	SAL	Dij

79.

Of. *Populum humilem* Dij 920; Ult, 86v; Sta, 125v, ii-85v; Clu, 46r  
 ... saluum facies ... CLV Ult, Sta, Clu  
 ... quis deus ... (end) PRR- Dij  
 640 ... quis deus ... -CLV Ult

80.

Of. *Precatus est Moyses* Dij 950; Ult, 61r; Sta, 95r; Clu, 37v  
 Precatus est Moyses ... VIR Sta  
 ... dixit. Precatus est Moyses ... (beg.) CLV Ult  
 ... memento Abraham [Abraham]... — Ult  
 ... Isaac et Iacob ... (mid.) PRE Dij  
 ... dixit facere populo ... (end) SSP Dij  
 <... ad Moysen ... (beg.) CLV Dij  
 <... et Aaron, dixit ... (mid.) PRE Dij  
 <... maiestas domini ... (end) CLM Dij

81.

Of. *Scapulis suis* Dij 956; Ult, 46r ; Sta, 77r; Clu, 29r  
 ... obumbrabit ... CLV Ult, Sta, Clu  
 650 ... sub pennis ... CLV Dij, Ult, Sta, Clu  
 ... sperabis ... CLV Ult, Clu  
 <... non timebis ... PSP Dij  
 <... a timore ... [gui]PUN Dij  
 <... mandavit de te ... CLV Dij

82.

Of. *Si ambulavero* Dij 949; Ult, 72r; Sta, 108r; Clu, 42r  
 ... vivificabis ... (beg.) PES Sta  
 ... vivificabis ... (end) quiVIR Sta  
 ... et super iram ... (mid.) CLV [PRE] Ult, Sta  
 ... inimicorum ... CLV Dij, Ult, Sta, Clu  
 ... et salvum me ... VIR Sta  
 660 ... fecit ... (end) CLV- Dij, Ult, Sta, Clu  
 ... fecit ... -PUN Dij  
 <... quacumque die... (9th n.) TOR Dij, Clu  
 <... invocavero te ... CLV Dij

83.

Of. *Veritas mea* Dij 879; Ult, 132r; Sta, 196v; Clu, 15v  
 ... misericordia mea ... PUN- Ult, Sta  
 ... misericordia mea ... -CLV Dij  
 ... misericordia mea ... QUI? Sta

...	<u>m</u> isericordia mea ...	CLV	Dij
...	in <u>n</u> omine ...	CLV	Dij, Clu
...	cornu <u>e</u> ius ...	quiPOR	Dij
670	<... adiutor <u>i</u> um ...	CLV	Dij, Clu
	<... <u>p</u> otentem ...	quiPOR	Dij

84.

Co.	<i>Ab occultis meis</i>	Dij 498; Ult, 79v; Sta, 117r; Clu, 44r
...	<u>m</u> unda me ...	PES Sta
...	ab alien <u>i</u> s ...	PSP Dij
...	servo <u>t</u> uo (2nd n.)	TRE- Dij, Ult, Sta, Clu
...	servo <u>t</u> uo (3rd n.)	-PRE Ult

85.

Co.	<i>Domine, memorabor</i>	Dij 618; Ult, 84v; Sta, 123r; Clu, 46r
...	<u>s</u> olius ... (end)	POR Dij, Ult, Sta
...	iuvent <u>u</u> te ...	CLV Clu

86.

Co.	<i>Dominus virtutum</i>	Dij 460; Ult, 90r; Sta, 130v; Clu, 49r
	Dominus virtut <u>u</u> m ...	CLV Sta
...	ipse <u>e</u> st ... (beg.)	TRE- Dij, Ult, Sta, Clu
680	... ipse <u>e</u> st ... (end)	-CLV Ult, Sta
...	<u>r</u> ex ... (penult. n.)	TRE- Dij, Ult, Sta, Clu
...	<u>r</u> ex ... (end)	-CLV Ult, Sta

87.

Co.	<i>Introibo ad altare</i>	Dij 629; Ult, 37r; Sta, 64v; Clu, 25r
	Introibo <u>a</u> d altare ...	CLV Dij, Ult, Clu
...	ad <u>D</u> eum ...	QPP Sta

88.

Co.	<i>Multitudo languentium</i>	Dij 417; Ult, 133v; Sta, 198v; Clu, 17r
	Multitud <u>o</u> ...	QUI Ult
...	qui vexab <u>a</u> ntur ... (end)	QUI Sta
...	et <u>s</u> anabat ...	CLV- Dij, Sta, Clu
...	et san <u>a</u> bat ... (2nd n.)	-POR Sta

89.

Co.	<i>Notas mihi fecisti</i>	Dij 526; Ult, 71r; Sta, 107r; Clu, 42r
...	fecisti <u>v</u> ias ... (end)	quiCLV Dij, Ult, Clu
690	... adimplebis <u>m</u> e ... (beg.)	CLV Ult



... leticia ...

PRR-

Dij

... leticia ...

-CLV

Dij

90.

Co. *Quinque prudentes*

Dij 551; Ult, 134v; Sta, 199r; Clu, 17v

... obviam Christo ... (end)

TOR

Ult, Sta

## 3. ADDENDUM

91.

Intr. <i>Puer natus est nobis</i>	Dij 568; Ult, 16v; Sta, 39r
... <u>im</u> perium ...	Sta
... humerum <u>e</u> ius ...	Sta
... <u>et</u> vocabitur ...	Ult
... <u>an</u> gelus	Ult, Sta

92.

Grad. <i>Timebunt gentes</i>	Ult, 30v; Sta, 56r; Clu, 17v
... omnes <u>re</u> ges ...	Sta
... <u>vi</u> debitur ...	Ult, Sta, Clu

93.

Tract. <i>De profundis clamavi</i>	Dij 742 (most letters are missing); Ult, 33v; Sta, 60r; Clu, 23v
... domine, exaudi ...	Ult, Clu
... <u>F</u> iant aures ...	Sta
... int <u>en</u> dentes ...	Sta
... orat <u>io</u> nem ...	Ult, Sta
... domine, quis ...	Ult, Sta, Clu
... quis <u>s</u> ustinebit ...	Ult, Clu
... leg <u>e</u> m tuam ...	Ult, Sta
... sustinuite, domine (mid.)	Ult, Sta

94.

Tract. <i>Laudate Dominum</i>	Dij 748 (letters missing); Ult, 55r; Sta, 88r; Clu, 33r
... om <u>n</u> es gentes ...	Ult, Clu, Sta
... conlaudat <u>e</u> eum ...	Ult, Sta
... Quoniam confirmat <u>a</u> ...	Ult, Sta
... et verit <u>a</u> s ... (end)	Ult, Clu
... in aetern <u>u</u> m (mid.)	Ult <sup>2</sup>

95.

Of. <i>Reges Tharsis</i>	Dij 926; Ult, 25r; Sta, 48v; Clu, 13 r (only verses)
... <u>m</u> unera ... (end)	Dij
... adducent ... (mid.)	Dij
... et ad <u>o</u> rabunt ...	Ult
... et adorab <u>un</u> t ...	Dij, Ult, Sta
... eum ...	Ult

<sup>1</sup>The Trier Gradual, being a torso, contains only fifty-one of the ninety pieces selected: nrs. 4, 7 to 12, 14 to 18, 20 to 22, 25, 27, 30, 35 to 41, 43, 44, 48, 52, 53, 55, 56, 59, 62 to 64, 66, 67, 69, 71, 72, 74, 79, 80, 82 to 85, and 88 to 90. Its very limited use of special signs also sets it apart from the other manuscripts. To give it equivalent comparative status would create an unbalanced picture. Besides, the Trier gradual stems from a Germanic tradition already represented here by Ult. I felt therefore no need to include the thirteen additional locations where, in the pieces quoted above, TRE 2 has a special sign not corresponded by the remaining sources.

<sup>2</sup>The current Vatican-approved edition, now almost a century old, generally follows the St. Gall tradition in neumatic contour, although it sometimes adheres to a later widespread version. The melodies are not always reliable; see, for instance, the criticism of Dom Joseph Gajard, "Le récitation modales de 3e et 4e modes et les manuscrits bénéventains et aquitains", *Études Grégoriennes*, I (1954), 9-45.

<sup>3</sup>*Graduale Triplex*, Solesmes: Abbaye Saint-Pierre, 1979. *Offertoriale Triplex cum versiculis*, Solesmes: Abbaye Saint-Pierre, 1985.

<sup>4</sup>This principle is implicitly followed in the example of neumatic reconstruction presented in *Le Graduel Romain*, IV/ii: for instance, the presence of a pes quassus only in St. Gall poses a doubt about the nature of the original neume, whereas the coincidence of St. Gall, Echternach and Brittany against Laon is enough to establish its presence in the written archetype (compare Intr. *Ad te levavi*, nr. 9, with Grad. *Universi*, nr. 19).

<sup>5</sup>"Étude sur la notation du manuscrit 47 de Chartres", *Paléographie Musicale*, vol. XI, Solesmes, 1912 [reprint Berne, 1972], 41-131 [93]; Eugène Cardine, *Semiologia gregoriana*, Silos, 1982 (original edition: Rome, 1968), 111-21; René Ponchelet, "Le salicus en composition dans le codex 359 de Saint-Gall", *Études grégoriennes*, XIV (1973), 7-125; Alberto Turco, *Il Canto Gregoriano*, 2nd ed., Roma: Edizioni Torre d'Orfeo, 1991, vol. I, 233-37; Maria Carlotta Fontana / Lucia Vinzi, "Scandicus e salicus in composizione nei manoscritti di scuola sangallese", *Studi gregoriani*, VII (1991), 167-82.

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