

CHAPTER ONE

THE NEUM-MANUSCRIPTS

A. RHYTHMIC AND NON-RHYTHMIC MSS.

About the tenth century we meet with two groups of neum-MSS. Those in the first group give melodic indications only, while those in the second provide rhythmic indications as well.

The famous rhythmic MSS.—S. Gall 339, 359, 390-391, 484; Einsiedeln 121; Laon 239; Chartres 47; Bibl. Nat. 1. Paris; a small number of pages of Nonantolian writing, and others—all belong to sources not only very exact but very early. For this reason, they are drawn upon in full confidence by all paleographers, whatever their personal convictions might be.

Age and value. If it could be proved that the so-called rhythmic MSS were older than the non-rhythmic MSS, then it would be fairly obvious that the latter belonged to a place and time in which the rhythmic tradition had been lost. Hence, without further proof, the non-rhythmic MSS would have less authority than the rhythmic MSS, and would certainly never be able to play a dominant part in the interpretation of those same rhythmic MSS. However, there is no need for the argument of greater antiquity concerning the rhythmic MSS, for their superior value may be ascertained without establishing their greater antiquity. The argument for this rests with the clear and unanimous pronouncements of the great medieval authors.¹ From the fifth to the twelfth centuries, it was their general teaching that rhythm was metrical, there being 'breves', 'longae' and 'duplo longiores'. Moreover, they tell us that the long and short durations of the sounds could be shown by the shape of the neums, and also that special letters indicated short and long sounds. Hence it follows that the rhythmic MSS which have come down to us bear a truer representation of the melody than the non-rhythmic MSS. Also, all the medieval rhythm-theories agree only with the rhythmic MSS; indeed, the indications of 'longa' and 'brevis' fail in the non-rhythmic MSS.

The crumbling of the tradition in the MSS. This is clearly confirmed when we examine those neum-MSS which may show rhythmic indications but owing to increasing incompleteness and inaccuracy, have to be grouped in a secondary class. These, in turn, run over into a third subsidiary grouping

¹ This will be shown in the second part of this book.

in which the original rhythmic indications (e.g. the *episema*) lose their significance and become pure graphic forms. In the above-mentioned secondary class, among others there may be grouped S. Gall 338, 340, 376, 378, 413, and Troyes 522, as will be seen later.

In these three classes of MSS it is possible to follow closely the gradual disappearance of the rhythmic tradition. However, should one be tempted to rank the non-rhythmic MSS above the rhythmic MSS of the first and second classes above, a state of conflict will arise between the rules of the medieval theorists and the chant-books (neum-MSS). In no way can this conflict be settled; the theorists prescribe metrical feet of 'longae' and 'breves' (2 : 1), while the non-rhythmic MSS omit the graphic indication of these different durations.

Nevertheless, there remains the possibility of the rhythmic MSS being related to the old non-rhythmic ones, in the same manner as a Hebrew text provided with vocal marks and accents is related to the same text lacking those marks and accents. For centuries, the second text was by memory, read as the first. Hence, both melody and rhythm may have been sung from the non-rhythmic MSS.

The same phenomenon is to be observed in the notation of the songs of the troubadours and trouveres from the end of the 12th century. In the majority of those songs, the notation is not mensural, but nevertheless, the melodies were sung in one or another of the rhythmic modes. The sequence 'Ave gloriosa virginum regina' ('Virge glorieuse pure nete et monde'), is written in proportional notes in the MS Soissons, Seminaire, f 1, and London, Egerton 274, f 3 (by cancellations and additions made in mensural notation). However, the same melody is written in the non-mensural quadrangular notation in the MSS: Florence Nat. II, 1, 112, f 90; Florence Laur. Pl. XXIX, 1, f 447; Limoges 17, f 283; Paris Arsenal 3517, f 4; Paris, BN. fr. 845 and 186. Many other songs are in the same state, appearing in several MSS as quadrangular notation while in other documents as proportional notation.¹ In 'De speculatione musicae'², W. Odington states (c. 1300) that the melodic letters A B C, a b c, etc. cannot indicate longs and shorts, and that he has therefore invented figures to mark such durations. Hence it is clear that these rhythmic differences were performed before the appropriate notation for them was invented.

Singing from memory. The earliest neum-MSS of medieval liturgical song date from the ninth century. The MS Autun 19 bis dating from 845, shows

¹ J. Beck, *La Musique des Troubadours*, H. Laurens, Paris, 1928. pp. 39-44 and *Die Melodien der Troubadours*, Karl Trubner, Straszburg, 1908, p. 76 and p. 111.

² F. de Cousse-maker, I, *De speculatione Musicae*, Pt. V, Chap. 2.

on folio 5, St. Gregory with a book which contains neums: some *virgae*, many *puncta*, and a few rounded neums¹. In a later section, 'Consultation of Manuscripts', some mention will be made of S. Gall 359 and Paleo-frankish notations which date from this ninth century.

The neums were invented more than a century after the Gradual melodies had begun to spread through the Frankish areas. Hence memory was an enormous factor, so that even when the neums appear, they indicate the intervals very inadequately in a great number of the MSS. They show whether a sound is higher, lower, or of same pitch, while in many MSS they cannot indicate exactly the extent of the movement up or down the steps of the scale or mode used. The diastematic writing (*e.g.* in MS 903 B.N. 1. Paris, Gradual of S. Yrieix. 'Pal. Mus'. XIII), the melodic letters in Einsiedeln 121 and Bamberg lit. 5 and 6 introduced a correction here; also the bilingual Montpellier 59 and finally the staff. Consequently, without the musical memory of prevailing oral traditions, for some centuries it was impossible to read and to sing the melodies from the MSS with absolute certainty.

The value of the medieval neum-notations. From the above, it will be obvious that the neums had much less value to the medieval singer than our present day printed music has to contemporary musicians. In these days, every note is so written that a definite relative duration is depicted. The medieval neum-notation however, showed the sound-durations often very incompletely, this being evident from several notations of the same melodic fragments. In many cases, the copyist has omitted signs of long or short duration in such well-known passages as F G a G F G G F, or before a new syllable (see p. 104), or at the end of a phrase. Again, there are omissions in entirety, of long *melismata* which recur repeatedly, while in the first parts of some MSS there may be seen many more rhythmic signs and letters than in the second parts. Copyists noted what *hic et nunc* was useful to the singers in their environment and omitted what was unnecessary owing to that environment.

It is noteworthy that a positive testimony is generally of greater value than a negative one. A positive indication is indeed a direct indication; a 't' or *episema* testifies positively and directly to a long sound-duration. The absence of a testimony, however, can mean something only where there is a possibility and a necessity for such a testimony. It is only in a case where a witness (in this case, a medieval theorist or a copyist of a neum-MS) could and had to speak, would his silence have a positive sense.

¹ Solange Corbin, 'Les représentations de neumes dans les livres peints au IX^e siècle' *Études grégoriennes*, I, (1954, Solesmes).

Hence, the absence of *episemata* or letters denoting a long sound-duration in known passages, need not be an indication of the absence of that sound-duration itself, because to the medieval copyist, there was no reason or necessity for noting them over and over again.

The absence of a sign must be viewed prudently by the paleographer, for he has to ascertain whether some form of contrast might have a bearing upon the overall effect. To mention only one example: when comparing identical passages, in the same MS or in others, it appears that a *virga* of S. Gall very often carries an *episema* when followed by 'breves', but lacks the same *episema* when surrounded by 'longae'. However, by comparative research, the *virga* appears to mean authentically a 'longa' in these latter cases. From this, the following is evident:

Where there is some contrast ('longa': 'breves'), the long sound-duration is positively indicated; but where there is no contrast ('longa': 'longae'), the copyist ordinarily omits the sign (episema).

Later on, it will be proved that the letter 'c' causes or creates a contrast in syllabic passages noticed in a series of S. Gall documents. This contrast shows, as will be proved, that there are 'breves' and 'longae' among syllables provided with only one note.

Variants. In the unravelling of the enigmas of the medieval neum-script, the 'comparative analysis' of the MSS plays a large part. When a melody or melodic passage is found several times in the same MS, the various notations may be compared with each other. Then a search is made for the same melody in other MSS from other liturgical sources and comparisons drawn between these readings. Thus Dom Mocquereau O.S.B. traced a general rhythmic tradition. He found that in all those different MSS, special neums bore a special mark (*episema*), or letter ('t'), or had a special form; other neums lacked those marks or forms. Thus there were two kinds of neums: the first indicating long sounds, and the second, short sounds. In both these series, the mutual agreement is not perfect, there being cases of dissension: variants. This disagreement could be purely negative when an *episema* or letter was forgotten. Again, it could be positive, one MS showing 'positively' a 'longa', with the other showing just as 'positively' a 'brevis' (e.g. by a 'c'). The first is found rather often, the latter, seldom.

In comparing mutually several specimens of the S. Gall MSS such as 18, 338, 339, 340, 342, 359, 376, 378, Eins. 121, Bamb. 1. 6, quite a lot of negative variants are met with, sometimes positives as well. This is also the case when other kinds of documents are brought into comparison: Laon, Troyes, Chartres, Paris B.N. 1118, etc. The number of agreements, however, is in the thousands, and continue to surpass by far the number of variants.

One is right in considering that these variants constitute no objection to the thesis that the different kinds of rhythmic notation transmit substantially the same rhythmic tradition. Indeed, both different notation and variants prove a large mutual independence of the MSS, whereas the agreements or correspondences leave no possibility of chance; they indicate a definite intention. This intention is nothing other than the desire that some neums be shown as longs, and others as shorts.

The above method of arguing will be used repeatedly later on in this book, tests being made at random and small statistic lists drawn up. A small number of real positive variants appear, as well as large numbers of agreements or correspondences. (See, for instance, p. 55 et seq.)

The variants which Dom Mocquereau encountered, did not disturb his thesis concerning the universality of a rhythmic tradition. In the same way, the variants which we shall discover in our statistics will not be permitted to obscure or overthrow our interpretation of neums.

Once again it may be said that purely negative variants do not necessarily constitute different versions. Canon Baralli established¹ that the graphic divergencies to which P. Wagner drew attention in his 'Neumenkunde', do not constitute real rhythmic variants. Dom Mocquereau also², concluded rightly from his paleographical tables that, 'a supplying indication, a letter or a stroke, which is present in one line and omitted in another of the same column in the table, does not therefore constitute a positive divergence of rhythmic meaning between those MSS or between those lines'.

The copyist of Chartres wrote generally in the shape of a 'brevis' the *clivis* at the phrase-ends, although this neum is doubtless a long one. The same can be said concerning the final *torculus* in some St. Gall. documents.

B. CONSULTATION OF MANUSCRIPTS

Paleographers who are engaged in solving rhythmic puzzles, are wont to refer to the MSS. S. Gall 339 and 359, Einsiedeln 121, Bamberg 1. 6, Laon 239, Chartres 47, and S. Gall 390-391 as being the most valuable specimens of their kind. To plead their value would be akin to forcing open an unlocked door. These documents may be termed a 'model-group', and the proper reason for such a title will be given later. For the Aquitanian and Nonantolian notations, the problem is somewhat different.

¹ 'Nimium ne crede colori', *Rassegna gregoriana*, 1913.

² 'De la clivis épisematique dans les manuscrits de S. Gall', *Revue grégorienne*, 1913. p. 55.

The Aquitanian notation.

Dom P. Ferrétti O.S.B. has written amply and appreciatively concerning this notation in Pal. Mus. XIII, pp. 205-211. The Aquitanian MS Bibl. Nat. 1. Paris, 1240, is of really great value. However, with regard to the difficulties of rhythm, No. 1118 of this library is more important. It is a 'Prosarium-Tonarium' of St. Martial of Limoges, a very interesting document of 500 pages, dating from the end of the 10th century (985-996). Through it there pervades the same rhythmic tradition that is characteristic of the other mentioned MSS of the first class. The graphic form of the neums differs from that in the others; there are variants and inaccuracies, but the melody and rhythm agree in substance.

In this No. 1118, folios 115-131 are the most valuable. They contain tropes drawn by means of *dieresis* (distribution) from the long melismatic melodies of some Alleluias and Offertory verses which have since become obsolete. Canon G. Delorme published a series of essays on this MS in 'Musique d'Eglise' (Herelle, Paris, 1934-35), a very penetrating dissertation which unfortunately, has not received the attention its importance deserves. In detail, this acute paleographer showed the concordance between the syllabic tropes or *prosulae* in No. 1118, and the original melismatic melodies in the other documents; No. 1118 giving an individual sign (the short point and the long horizontal stroke) to correspond with every note or neum in the melismatic versions. This notation, being analytical, is therefore unequivocal and clear and is a very convenient means to discover the rhythm of so many synthetic notations of the other schools.

G. Suñol published ¹ four fragments (Libr. Gener. Barcelona) containing Office antiphons among which, 'Vos qui secuti estis', 'Isti sunt viri', 'Non vos relinquam orphanos', and 'Maiorem caritatem', are noted by Hartker on pages 289, 206 and 263.

Here also, we may quote J. Handschin ² concerning the distinction between longs and shorts:

'We can take it as certain that the short horizontal stroke and the point in this specimen of Aquitanian notation signify long and short notes respectively, though in a number of cases doubts may arise, since the horizontal stroke is very like a point; an exact determination of the note values would involve a comparative study of several manuscripts.'

Such a study, the present writer will present in the first part of this book. The Aquitanian notations of tropes and sequences will be compared with

¹ *Introduction* . . . , pp. 167-172.

² „Trope, sequence and conductus”, *The New Oxford History of Music*, II. *Early Medieval Music up to 1300*. Oxford Univ. Press, 1954, pp. 170-171.

the notations of S. Gall, Laon, Nonantola and Chartres. It will be shown that there is a rhythmic difference between not only the horizontal stroke and the point, but also between two kinds of *virgae*.

The Nonantolian notation.

The eminent scholar E. Jammers, in 'Der Gregorianische Rhythmus—Antiphonale Studien' (Heitz, Straszburg, 1937), showed that as far as he was aware, there existed only one folio in this notation: 'Für die Schule von Nonantola kommt erst heute das Einzelblatt aus Monza im Frage, das Mocquereau zum Abdruck gebracht hat.'

Here, however, the scholar was mistaken, for we are fortunate in possessing two folios, each consisting of two pages belonging to a Nonantolian Graduale of the tenth century (Capitular archives of Monza B. 1, 41). Dom Ménager O.S.B. discovered a third folio of the same Graduale in Codex S. 37 Sup. Ambrosiana Milan.

Of rather less value are two pages (folio 319 Rome, Bibl. Nat. 2656-sessor 96.) which contain a large part of the Office of St. Benedict (the Mass). They are of later date, but still important because of rhythmic indications. One of these is 'Pal. Mus.' II, Pl. XI.

In all, these eight pages contain the following chants of the Mass:

Intr. 'Nos autem' (part of)

Grad. 'Ego autem'

Offert. 'Custodi me' with V. 'Eripe'

Comm. 'Adversum me'

Intr. 'In nomine Domini'

Grad. 'Ne avertas faciem'

Tr. 'Domine exaudi'

Intr. 'Sitientes'

Grad. 'Tibi Domine derelictus'

Offert. 'Factus est Dominus' with V. 'Praecinxit'

Comm. 'Dominus regit'

Intr. 'Judica me'

Grad. 'Eripe me Domine'

Tr. 'Saepe expugnaverunt me' with V. 'Dicat' and 'Etenim' up to and incl. 'prolongaverunt'.

Offert. 'In te speravi' (starting with 'et salvum me fac') and V. 'Quam magna'.

Comm. 'Cum invocarem'

Intr. 'Reminiscere'

Grad. 'Tribulationes'

Tr. 'De necessitatibus'

Offert. 'Meditabor' with V. 'Pars mea' up to and incl. 'in toto'.
The Mass of St. Benedict gives us:

Intr. 'Gaudeamus'

Grad. 'Domine praevenisti'

Tr. 'Desiderium'

Offert. 'Oratio mea munda' with V. 'Probavit'

Comm. 'Qui vult venire'.

In addition to the above, there is a fragment from Bologna (Liceo Musicale MS 144, No. 10), which contains:

Offert. 'Miserere mihi' without V.

Intr. 'Ne derelinquas me'

and, Verona 94, containing the 'Gloria Patri' verses of the Office Responsory in the eight modes, and Bologna (Liceo Musicale 144, No. 10) containing Offert. 'Miserere mihi' and Intr. 'Ne derelinquas'.

A larger documentation in this complete and unequivocal notation would be very useful indeed, but, nevertheless, the four folios of eight pages contain approximately 4,300 simple or compound sound-signs embracing all types of gregorian neums. The two fragments give us about 860 sound-signs; this makes a total therefore, of over 5,000 of these.

As early as 1920, Dom Ferretti ('Pal. Mus.' XIII, pp. 82-85), and Dom Ménager (Revue grégorienne, Nos 4-5), drew attention to the large number and the figures of rhythmic signs in this notation, while Canon G. Delorme confirmed, elucidated and completed their discoveries.

During the course of this book, the rhythmic meaning of all kinds of Nonantolian neums will be explained, and it will be seen that this school is very consistent and systematic in fully marking the signs of duration. Nowhere does there appear any purely graphical convention, such as a rule whereby rhythmic signs are suppressed when the choir-leader himself knew that they should be inserted. This latter phenomenon causes many difficulties in the interpretation of the S. Gall notations. Cf. below, on Bologna 2679.

Laon 239.

It will become apparent in this book which outstanding rhythmic qualities may be attached to this MS of Metz-notation dating from the ninth or tenth century. In some respects it is even to be preferred to the MSS of S. Gall.

Attention is drawn to the striking fact that as well as the little point, there is yet another simple neum shaped somewhat like a swallow tail; they both occur isolated above a syllable. The small point corresponds

to the proper points or tractuli with the 'c' in S. Gall, to the points in Chartres and Bibl. Nat. Paris f.1.1118, and to the sticks without crook in Nonantola, all isolated above a syllable. The swallow-tail mark of Laon corresponds to the long sounds of the other schools, and this fact should throw a new light upon the interpretation of gregorian rhythm.

Since the point and the swallow-tailed *tractulus* often indicate the highest sound of a group (e.g. the point in short *climaci*, the *tractulus* in all long *clives* and *climaci*), it cannot be established that only the *virga* indicates high sounds. Hence the *tractulus* of Laon is not 'merely' the long form and the point the short form of 'low' sounds. Many paleographers called this *tractulus* the 'big point', but it is best termed '*tractulus*' because it usually corresponds with the *tractuli* (French 'traits') in S. Gall, Chartres, and Bibl. Nat. Paris. Cf. Example 71 and 105.

Chartres 47.

This well-known MS of the tenth century, though not always clearly distinguishing the point from the *tractulus*, is of great value. Six pages of Office chants in the same notation found in the University Library at Leyden, Holland, and dating from the tenth century will be added (one page in 'Pal. Mus.' II, Pl. 80).

S. Gall

Insofar as the variable chants of the Mass are concerned, the MSS. Nos. 339, 359, Eins. 121, Bamberg lit. 5 and 6, are the finest specimens. The MS Paris Bibl. de l'Arsenal, 610 (Missale of Worms, 10th cent.) has its merits, although not so complete.

Before assessing the value of the several MSS belonging to this and other schools, it may be well to recall what Tertullianus wrote concerning the value of corresponding traditions in different and distant areas. 'In their agreement', he says, 'there cannot be error', for '*variasse debuerat error*' ('Error should have been varied').

The value of a manuscript becomes manifest by the positive agreement between documents of different and independent origin when they are not copies of one and the same document. Positive agreement between complete MSS cannot be explained by chance or accident, but must be the outcome of the intention and free will of the copyists. These MSS together form a 'model-group', and constitute a standard by which other MSS will be judged. Thus, the nearer a document approximates this group, the greater will be its value; and vice versa, the more it deviates therefrom, the less will be its authority.

Among the members of such a 'model-group', variants and discrepancies may doubtless be found, but nevertheless, the agreement in indicating longs and shorts is so striking, that a universal and uniform tradition is deducible from these documents, a tradition which, being substantially identical in several European liturgical centres, must point to a common original source.

Hence, a 'model-group' will be understood to be a group of documents in which the same sound-signs are characterised as shorts and longs in each of the members of the group. From this agreement in characters, it becomes evident that the intentions of the copyists were identical. Also from this emerges the fact that the original source of the several notations is still living on, for the most part, intact and incorrupt, in their surroundings. For this reason, certain MSS belong to the model-group, their age being neither a decisive nor an influential factor in determining their value.

As most of the MSS to be described, are of lesser value, they may be relegated and thus designated 'of the second class', or even 'of the third class'. Again, as with the model-group inclusions above, neither their age alone, nor the influence thereof, affects the standard of their value or reliability. Rather, the basis of their value is the degree of their concordance with the authentic model-group, coupled with (to a lesser extent) their age. To this assessment, should be added the internal criticism concerning a document's consistency and accuracy or otherwise.¹

S. Gall 18 (9th-10th cent.).² This fine notation is rhythmically correct and has no letters. F 21-39 shows antiphons 'ad pluviam postulandam', 'ad serenitatem', 'ad comunicandum', and many chants for Holy Week.

S. Gall 338 (10th-11th cent.), F 36-290, Gradual.—There are many rhythmic signs, but these are often inaccurate. This MS shows obvious remains of the tradition of the model-group, e.g. the *episema* on the third note of a *salicus* and *porrectus*, the letter 'c' on the left side of a *porrectus*. These marks and signs will be proved shortly as being authentic.

S. Gall 340 (11th cent.).—The *episema* is found not only on the third note of the *salicus*, but also on most *tractuli* and on many (too many) *virgae*. The letter 'c' occurs in a few syllabic passages and on the left side of the *porrectus* just as in *S. Gall* 338. Caution must govern the use of this MS.

¹ The foregoing concerns chiefly the rhythmic qualities of the documents. Other problems, age, origin, filiation, are of less importance in the present research.

² In dating the *S. Gall* documents, the indications of the special literature and the *S. Gall* catalogue are generally followed, except when some MSS appear to be of a date later than is indicated in this catalogue.

S. Gall 342 (10th cent.)—This shows clear relics of the tradition, and seems to be of greater value than 340. From f 127 (*Dom. I Nativitatis*), a later hand in more decadent notation is seen. From f 148, a very fine hand has written beautiful neums and many letters ('c', 't', 'x', 'st'). From f 183-202 only a few letters are inserted. Folio 203 and those that follow, show inaccuracies and slovenliness with hardly a letter inserted, the copyist never noting an *episema* on the last note of *bi-* and *tristropa*. However, when the *strophici*-groups are followed by sounds on the same syllable, the copyist has frequently written this prolongation sign, as in *S. Gall* 359.

S. Gall 343 (11th cent., but 14th cent. after f 109.), f 35-190, Gradual.—The *episema* has no rhythmic meaning and has become merely a graphic convention.

S. Gall 375 (First half 12th cent.)—This contains relics of the tradition but with very many superfluous *episemata* on the *virga*. This document is of less value than 376.

S. Gall 376 (First half 12th cent. or 1064-70), f 83 Gradual.—This contains very many rhythm signs corresponding with the model-group, e.g. the letter 'c' in syllabic passages. In f 320-341, the Sequences are more accurate than the Gradual. The rhythmic decay has started.

S. Gall 378 (10th cent. or more probably, about 11th cent. or c. 1070).—The copyist has noted many marks of rhythm, especially the letter 'c' as in 376. The third sound in the *salicus* is long, and the rhythmic indications are clearly remnants of the tradition which declines from now on. In f 155-296, the Sequences are fairly accurately noted.

S. Gall 380 (11th cent.)—This MS shows close concordance with the model-group. The *episema* is found attached to the second note of the *bistropa*, on the third part of the *salicus*, on the *bivirga*, and usually on signs which are isolated above one syllable. There is a distinction between the ordinary and the angular *pes*. However, superfluous *episemata* appear on the first note of the *climacus*. Among the Sequences in f 125-272, 'S. Spiritus adsit nobis' (f 193-195) agrees almost everywhere with the better MSS. The tradition commences to decline. (The Sequences are preceded by tropes on the Mass-chants.)

S. Gall 381 (11th cent. circa 1000).—This contains psalmody in neum-notation which is important for the interpretation of the liquid neums. Also present, are tropes and Sequences, as in *S. Gall* 484. Portions of Introits and Communions are frequently provided with neums of the same type as in the tropes themselves. The Sequence 'S. Spiritus adsit nobis', is noted almost as accurately as in *S. Gall* 484, Bamberg lit. 5 and Eins. 121.

A much more recent hand has put above the text, 'sticks' and 'stripes' without rhythmic meaning.

S. Gall 382 (Probably of later date than 381, 11th and 13th cent.).—There are two hands, the earlier being not very accurate, the later lacking any value.

S. Gall 387 (11th cent.).—This has about the same contents as Hartker (*S. Gall* 390-391) in more than 600 pages. On pp. 58-80, the copyist has noted the Gradual 'Haec dies' with the verses 'Confitemini', 'Dicat nunc', 'Dicant nunc qui', 'Dextera Domini', 'Benedictus', and the Alleluia 'Pascha nostrum'. These notations almost agree with those of *S. Gall* 359 and Eins. 121. Occasionally a less reliable hand appears in the Office-chants. The copyist does not use the 'compensation-technique' of Hartker.

S. Gall 388 (12th cent.).—This MS is of no value for the problem of rhythm interpretation.

S. Gall 390-391 (986-1011).—This Office-Antiphonary has been published in 'Pal. Mus.' II. Series (Monumentale) I. In some parts, a much more recent hand appears, furnishing all *virgae* with *episemata*; these preclude any value for the interpretation of rhythm. Later, it will be proved that the notation of this MS indicates 'breves', 'longae', and 'duplo longiores' in the small antiphons. The notation system of the greater Antiphons (for the *Magnificat* and *Benedictus*) and of the Responsories agrees with that of the Mass documents (*S. Gall* 359 etc.). The monk Hartker uses the 'compensation-technique'; this will be explained in a later Chapter. Cf. p. 128.

S. Gall 413 (1034-1047).—This 'Officialis liber' of almost 700 pages resembles 390-391. It is somewhat traditional in bigger groups, but each separate *virga* carries an *episema*. The notation of long and short *pes* is often arbitrary. From p. 613, and especially so on pp. 652, 653, 662 and 663, it is striking that the *episemata* have almost disappeared. Relics of the tradition are the *episemata* on the third and sixth notes of the *scandicus subbipunctis resupinus* coinciding with the notations of *S. Gall* 339 and Laon 239. The *episema* is written on the third note of the *porrectus* before a new syllable. The copyist does not use the 'compensation-technique'.

S. Gall 414 (Perhaps 11th cent.).—This MS contains mainly Office antiphons. It is more reliable than 413, but less so than 390-391. Many angular *podati* and few long *clives* appear. The *episema* is put arbitrarily above *virgae* which are isolated on a single syllable. In the groups, however, this MS is more accurate; e.g. above the third note of the *porrectus* before a new syllable, and on the third and sixth notes of the *scandicus subbipunctis resupinus*. It is interesting to note that the letter 'c' often appears in the

same rhythmic passages as in Hartker, e.g. in antiphons of 'Prudentes virgines' type.

S. Gall 484 (c. 970).—This is a document of the greatest value, for many melodies are written twice, in syllabic and neumatic styles. In the syllabic portion, tropes (*prosulae*) have an ordinary *virga*, a *virga* with *episema*, a horizontal stroke, and even a small point. This analytic notation is a reliable expedient in interpreting the compound neums of *S. Gall*. viz. the *pes*, *clivis*, *porrectus*, and *torculus*; each part of these combined neumatic figures being written as a separate sign in the *prosulae*. Thus the syllabic notation shows explicitly what is merely implied in the neumatic version.

Page 4, 'Incipiunt tropi carminum'. This portion contains the openings of Introits and Communions, and many settings of the Kyrie and Gloria.

Pages 258-297, the famous Sequences without text. Some of them may also be found in B.N. Paris. 1118, e.g. in f 270, 'Congaudent angelorum chori' (in 1118; 'Celica resonent' f 149^r, 150^r, and f 132^r, without text.), and in f 259, 'Hanc concordi famulatu' (in 1118, f 134^r).

In a fine hand of the 19th century, there appears in f 257 the following observation:

'Nota—Sequentiae, quae sequuntur, ordine inverso legi debent, scilicet ab imo deorsum, incipiendo a p. 258 in inferiore parte et ascendendo ad partem superiorem, et sic paginis sequentibus.' This may be rendered:

'Note—The Sequences which follow should be read in inverted order, namely from bottom to top, starting from the bottom of p. 258 and so on in the following pages.' The same picturesque hand inserted the tune-indications for the Sequences. These were originally in red ink which has now almost disappeared. ('Occidentana', 'Romana', 'Mater', 'Organa', 'Planctus sterilis' etc.). On account of this insertion, a later hand of the 20th century has added to the beginning of this precious codex: 'Die mit Tinte geschriebenen Bemerkungen S. 257-295 wurden, ohne Erlaubnis, von P. Dechevrens S.J. in Aug. 1896 eingetragen'. In English translation: 'The observations written in ink on pp. 257-295, were inserted, without permission, by Fr. Dechevrens S.J. in August 1896'.

Nevertheless, the candour of this erudite and penetrating musicologist has facilitated the recognition of the Sequence-tunes without text.

Bamberg lit. 6, Ed. III 7 (end of 10th cent. Gradual of S. Emmeran of Ratisbon).—This MS. is of great value, approximating the model-group. The *scandicus* appears as three *virgae*, one above the other; the *pes* as two *virgae* similarly arranged; and the *episema* appears frequently on notes isolated above one syllable. Also, the letter 'c' is seen in syllabic passages;

the *episema* appears frequently before a new syllable and on the third note of a *salicus*. There are occasional superfluous *episemata* corrected by the copyist adding a letter 'c', e.g. in the Graduals of the type 'Justus ut palma'. The Mass-Propers are 'noted' up to f 73, and are followed by the Sequences provided with neums in the margin, and the curious tune-titles.

Bamberg lit. 5, E.V. 9.—This MS of Reichenau was composed for the Emperor Otto II, d. 1002). Its greatest value lies in the Sequences (f 66-161), it being the only collection of these where the (rhythmic) neums are written as groups in the margin as well as simple notes above the text. Furthermore, the same complete melodies ('Occidentana' etc.) are noted several times over and over again above the different texts of the various feasts. The copyist is generous with letters. The third note of the *scandicus* and *salicus*, and frequently the third note of the *porrectus* carries an *episema*, while the letter 'c' often appears on the left side of the last neum.

Bamberg lit. 7 (ol. A II 54), and *lit. 8* (ol. A II 55).—The first of these dates from 1002-1012 and is a prayer book of St. Heinrich (Treasury of the Cathedral of Cologne or from Bamberg). The second is a Gradual of St. Cunigonda (d. 1033). Both of these MSS show many rhythmic markings, but they are less accurate than *lit. 6*.

Zürich, Central Library 43. (9th cent.).—In this MS. f 2 gives the 'Prefatio communis' with rhythmic signs, f 218-219 the 'Prefatio St. Martini'. Both prefaces, probably in the same hand, are finely written in S. Gall. notation. The openings of the Sunday Introits on f 280 are less accurate.

Einsiedeln 121.—The collection of Sequences is, for the greater part, similar to S. Gall 376, 378, 380, 381 and 484. Only one page was published in 'Pal. Mus.' IV.

Einsiedeln 366 (Cod. Fragmenta I).—Contains several Sequences in early staff-notation. It is important for intervals but lacks rhythm indications.

Einsiedeln 369.—This is a collection, 'Missalia manuscripta antiqua. Fragmenta collecta e codicibus monasterii Einsiedlensis', (many fly-leaves). Most parts seem to date from the 11th century. The *Proprium Missae* is for the greater part non-rhythmical. On f 23^{r-v}, the *Proprium* is 'noted' for *Dom. I in Quadragesima, ferias II, III and IV*, the Introit 'Reminiscere', and the Gradual up to the verse. There are rhythmic notations, a long *clivis*; *episema* on *bivirga*, in *scandicus subbipunctis resupinus* (third and sixth notes), and before a new syllable. The value of these notations is lessened by the fact that almost all *virgae* carry an *episema*.

Einsiedeln 466 (Probably 10th-11th cent.).—The Gradual starts on f 63. There are a few short *clives*, and many *episemata* on *virgae* when isolated on one syllable except, very significantly, where *Eins. 121* shows the letter

'c' and Laon 239, a point. There are many *bivirgae* with *episema* (Intr. 'Gaudete', Comm. 'In splendoribus', Graduals of type 'Justus ut palma'), also many exact agreements with the model-group, such as the *episema* on the third and sixth notes of the *scandicus subbipunctis resupinus*, and on the third note of the *porrectus* before a new syllable. Often however, superfluous *episemata* appear on the *virgae*. The tradition is clear but is already decaying here.

Einsiedeln 523 (Perhaps 10th-11th cent.).—This contains the Graduals f 9-140, Antiphons ('In Palmis', etc.) f 151, and Sequences f 157-188. The *episema* appears on the third note of the *salicus* and *scandicus*, the *clivis* is long throughout, and the *climacus* always short! The original meanings of the rhythmic signs are being confused and lost.

Beneventum 10673 (10th cent. Suñol; or 11th cent. Ferretti. Cf. Suñol, 'Introduction' pp. 157-164, and Ferretti, 'Pal. Mus.' XIII. pp. 99-107).—Among the rhythmic indications are found: the *episema* on both notes of the *pes*, on the third note of the *salicus*, on the third or even on all three notes of the *scandicus*, on the note after the *quilisma*, frequently on an isolated *virga*, on the *virga* in groups, on the third note of the *torculus*, and attached to the left-hand sides of high notes and to the right-hand sides of low notes. Also evident are a long *clivis* and *torculus*, a (long) *tractulus* when isolated on a syllable, and a comma resembling the long Nonantolian comma. Later, it will be shown that all these indications are relics of the tradition.

A very curious neum is a small crook-like figure with apex uppermost and leaning slightly to the right. Its two prongs taper off towards their extremities. This figure is found isolated, only above syllables which have the point in Laon 239, and those which have a *virga* or *tractulus* with 'c' in MSS. of S. Gall (Eins. 121; St. Gall. 338, 340, 359; Bamberg lit. 6.). Even in *Beneventum* 34, an otherwise non-rhythmic document, this curious neum is found (e.g. in the Grad. 'Tollite' i.v. 'et mundo corde'. Cf. 'Pal. Mus.' II. Pl. 31.).

Troyes 522 (Probably 11th cent.).—This Graduale of 163 folios has almost the same neum-shapes and rhythm as Laon 239. Only the letter 't' and a rare 'a' appear, there being no others. The copyist has inserted the letter 't' almost exclusively for the purpose of indicating a first long note when followed by a group above the same syllable. Occasionally it is shown on the third note of a *torculus* or *porrectus*.

There are four different hands; up to f 50, mainly the first but sometimes the third. The last 50 folios are inexact and lack clarity.

The following MSS belong to the Metz area:

Monte Cassino K. 494 (mid. 11th cent. G. Hourlier O.S.B.¹.—This contains the Office of St. Remigius.

Vergeil 205 (10th cent. Br. Krusch; or 11th cent. G. Hourlier O.S.B.).—The same Office. There is a distinction between long and short *clivis* as in Laon 239; rarely a long *pes*; the *climacus* always contains a *virga* for a first note with a *tractulus* as the last one. The tradition is crumbling here.

Vergeil 186.—This MS is of less value than Troyes 522.

Clm. 13067 (11-12th cent. Cathedral library of Ratisbon).—This originates from the Priory of Hastieres and is written in the Metz notation. It is of greater value than Monte Cassino and Verceil. There is a close resemblance to Laon 239, and to Chartres 47; for example: the distinction between short and long *pes* and *clivis*, the first note of the *climacus* is a point or a *virga*, the last note of the *climacus* is always a *tractulus* and points to its being a graphic convention without rhythmic significance. The MS contains many Office Antiphons and Responsories of 'S. Trinitas', 'Dedicatio Ecclesiae', 'Defunctorum' etc.

Milan. Library Ambrosiana D. 48 inf (10th or beginning of 11th cent.).—This Missal of Bobbio is in the notation of S. Gall and is fairly useful for rhythmic indications. There occur the following: letters 't', 'c' or 'st'; long and short *pes* and *torculus*; *episemata* on the third notes of the *salicus*, before a new syllable, and occasionally on notes isolated on one syllable, although however, the copyist is not very generous with these signs elsewhere. The *clivis* before pauses is noted as short. Attention is drawn to the cases where syllables have but one note, these isolated notes being written either as a point or as a stroke. Frequently here, the difference is not clear, but nevertheless the points often agree with the points of Laon 239, and with the letter 'c' in some MSS of S. Gall notation, and also with 'stick without crook' in the Nonantolian notation. However, in all probability, the Milan copyist used the point too frequently.

Milan. Library Ambrosiana E. 68. sup.—This MS shows a great resemblance with Laon 239. One point of resemblance is the contrast between the small point and the *tractulus*, the shape of the latter not differing much from the characteristic *tractulus* of Laon. The copyist of this Ambrosian MS uses many signs for rhythm, and a small number of letters of rhythmic or melodic significance: 't' (12 times), 'a' (once), 'n' (once with rhythmic intention), 's' (*sursum*) (35 times), 'h' (*humiliter*) (17 times), 'e' (*equaliter*) (twice), 'nl' (*ne leves*) (once), and 'd' (*depreste*) (twice). Some lack of agreement is noticed

¹ 'Extension du culte de Saint Rémy en Italie' by G. Hourlier O.S.B., in *Etudes grégoriennes*, I, 1954, p. 188 ff.

among the notations of sounds isolated above one syllable, at least when some of the small points of this MS are collated with the points of Laon and with the syllabic 'c' passages in Eins. 121 and S. Gall 359. In this E. 68, the third note of the *salicus* and *scandicus* is a *virga*, while the first note of the *climacus* is a *virga* or a point, shown in Laon as a (long) *virga* or a (short) point. The third and the sixth notes of the *scandicus subpunctis resupinus* are not points but *virgae*. The second note of the *bistropa* and the third note of the *tristropa* is always, or almost always, a *tractulus*. The *virga* seems to appear and disappear (being replaced by a point) in the same circumstances as the *virga* in Laon.

This MS probably belongs to the Abbey of St. Abbondio in Como, Italy. Where its melodic tradition disagrees with that of S. Gall, it agrees generally with that of Laon-Chartres. Thus E. 68 is, among others, a testimony of the medieval cultural interchange, of migration, and of meetings among liturgical centres in distant areas.

Bologna 2679 (11th cent.).—This interesting document shows a close resemblance to the eight Nonantolian pages mentioned. The *clivis* before a pause always takes the long form, being shown as a stick with or without crook plus a comma. The long duration of the second note of the *clivis* and the third of a *torculus* is shown as an incomplete circle with the opening to the right, thus resembling the letter 'c' (cf. Ferretti l.c.). The *quilisma*, often preceded by a stick with a crook, or by a big point, consists of two points. The last note of the *torculus* is long before a new syllable. The comma is a 'longa', e.g. before a pause, and in the well-known grouping of a *climacus* with four falling notes (e, d, c, b) as at the beginning of the Verses in Graduals of the type 'Justus ut palma', i.v. 'Ad annuntiandum Mane etc.', in the Graduals 'Exultabunt', 'Nimis honorati', 'Angelis suis', etc. The sticks with, and without crook are often barely distinguishable. Occasionally an undulating *oriscus* is shown as a 'longa', and the third note of the *climacus* is given as either short or long.

Paleo-Frankish notations:

Paris, B.N. 2291 (9th cent.).—Origin, St. Amand.

Paris, B.N. 17305 (10th cent.).—Origin, Compiègne or Amiens (Abbé G. Beyssac), or St. Riquier-Centula (J. Handschin).

Düsseldorf, D1, D2, D3. (9th cent.).—Origin Centula-Corbie, or Rheims (St. Amand-Réomé-Essen).¹

¹ See, J. Handschin, „Eine alte Neumenschrift“, *Acta Musicologica*, 1950-51, p. 69; and 1953, p. 87. Also, E. Jammers, 'Die Palaeofrankische Neumenschrift', *Scriptorium* E. VII, No. 2, 1953, p. 235; and *Der Mittelalterliche Choral*, Mainz, 1954; and *Die Essener Neumenhandschriften der Landes- und Stadt-Bibliothek Düsseldorf*, Ratingen, Aloys. Henn Verlag, 1952.

These documents contain rhythmic indications. There is a distinction between the *tractulus* and the point; the letter 't' occurs above the *tractulus* and other neums, and the appearance is noted of a long angular *pes* which is also marked by two points or *tractuli*. The means whereby the several kinds of shorts and longs may be discerned, are not always available, but E. Jammers regards *tractuli* with 't' as '*Duplo longiores*'. Cf., p. 156.

There are of course rhythmic documents other than the MSS mentioned, but most of these may be considered as of second class value owing to their being inconsequent, and lacking in system many of their rhythmic markings have become mere graphic conventions without significance.

Second-class MSS with the aforesaid rhythmic markings are not generally suited for contributing in a positive manner to the interpretation of the ancient neums. However, it is necessary to study the second-class MSS of lesser rhythmic value, a small number of them having been published.

The purpose of such a study must be to ascertain whether the UNpublished codices contradict any of those published, or not. In other words: is there justification for placing so much reliance upon the so-called model-group, which for the greater part, has been published? Or: is there a possibility that the other unpublished documents might show some contrary testimony?

There is no doubt that the paleographer can rely upon the model-group for reasons as follow:

1. If there were no justifiable reliance upon the model-group, then those documents which belong to it should not be taken as "model".

2. The unpublished MSS are, for the greater part, among the documents of second-class value. Indeed, these may have preserved many traces of the original sources, and to that extent, confirm the tradition. But unfortunately, their testimony will lack authority if it contradicts the model-group. The reason for this is that these documents do not agree with each other in their divergencies, the differences being irregular, arbitrary and confused; there cannot possibly be any question of reducing these divergencies to a common source. Also, the internal criticism of these documents shows slovenliness and meaningless graphic conventions. In short, these MSS manifest a tradition that is crumbling, not uniformly, but in different directions.

Dom Mocquereau¹ made an appeal to *Officialis Liber* S. Gall 413 against Dom Jeannin who, it was said, had not studied this unpublished document.

¹ *Examen des critiques dirigées par Dom Jeannin contre l'Ecole de Solesmes*, Desclée, 1927

The Author, after examining this MS, has felt compelled to classify it as of second-class value and hence of lesser authority. Cf. p. 14.

The monks of Solesmes have done excellent work by publishing in their precious 'Paleographie Musicale', photocopies of a great part of the model-group¹. Dom Mocquereau has testified to the fine qualities of these documents². Dealing with the value of MSS. cited, this scholar wrote of S. Gall 359, Eins. 121, and Bamberg lit. 6: 'Les manuscrits sont excellents'. His valuation of S. Gall 359 was: 'Le meilleur de nos manuscrits'. The Abbey of Solesmes has rendered an estimable service to the science of paleography and this especially so in respect of the work of Dom Mocquereau.

C. THE AUTHORITY AND THE DEPENDENCE OF MANUSCRIPTS

If several MSS be copied directly from one prototype, not one of these copies has a separate authority. If they are all equally faithful copies not even a large number of these has any more prestige than a single one.

It is out of the question that the documents originating from the different medieval liturgical centres are either copied directly from each other, or directly all together from one prototype. Their divergencies are too fundamental and too manifold for this. Even the basic form of the several notations varies with distant areas. Indeed, if there were any possibility of direct copying, there should be almost literal conformity among them.

Even MSS of the same centre or notation-school show large divergencies. For instance, in the S. Gall notations, the earlier mentioned MSS 18, 338, 339, 340, 341, 342, 359, 375, 376, 380, 381, 387, 388, 390-91, 403, 413, 414, 484, Eins. 121, 369, 466, 523, Bamberg lit. 5 and 6, and Bibl. de Arsenal 610, are characterized by their uniform basic notation. But at the same time, some great differences occur among them.

In this respect, Dom Ferretti examined the relationships between S. Gall 339, 376, Eins. 121, and Bamberg lit. 6.³ The divergencies appear to be important.

1. S. Gall 339 has no letters. If this MS and also 376, Eins. 121, and Bamberg lit. 6, had been copied directly from one prototype, then the

¹ Dom J. Gajard testifies as to S. Gall 339, 359, Eins. 121, Bamb. lit. 6, Laon 239, and Chartres 47: 'les meilleurs représentants des écoles sangallienne, messine et chartraine: ce sont eux qui forment la base du travail de restitution'. Cf. 'Les réceptions modales des 3e et 4e modes et les manuscrits bénédictins et aquitains'. *Etudes grégoriennes*, I, 1954, p. 20.

² 'La tradition rythmique dans les manuscrits,' *Monographies grégoriennes*, IV, p. 17. Desclée, 1923.

³ 'Le coup d'épée dans l'eau', *Revue Grég.*, Année 7, No. 3, pp. 81-88; No. 4, pp. 130-139.

- question arises as to why 339 should have omitted the letters and inserted many *episemata* (supposing, of course, that the prototype did have letters). Then again, if the prototype did not have letters, an explanation is needed as to why the three other copyists inserted them.
2. The four copyists use melodic and rhythmic letters in different ways, one inserting them where another omits them, and vice versa. Such pitch-letters as 's' (*sursum*), 'l' (*leva*), and 'a' (*altius*) seem to be used indifferently, one copyist occasionally writing 'a' where another writes 'l', etc.
 3. The *virga* indicates high, or higher sounds while the *tractulus* generally implies lower ones. But since these neums may be related either to preceding or to following neums, the *virga* is written when related to a lower sound, and the *tractulus* when in relation to a higher sound. In this way two possibilities are often introduced, the copyists in these two cases not agreeing. One writes a *virga* while the other, a *tractulus*. The question arises as to how such a difference could occur between direct copies made from a common prototype. To suppose an eventual prototype is to surmise either *virga* or *tractulus*.
 4. The last *strophicus* of *bi-* and *tristropa* is given as an *episema* in one MS, but not in another MS. S. Gall 339 rarely shows the *episema* in these neums, while S. Gall 359 hardly ever before a new syllable.
 5. The *pes quassus* occurs frequently in one document and the angular *pes* in another.
 6. In Bamberg lit. 6, the long *pes* is shown as two *virgae* one above the other, while the long *scandicus* as three *virgae* similarly arranged. These notations have pitch significance and are used when preceding neums are on a lower degree. In the same melody, another copyist makes use of the angular *pes*; and of two *tractuli* plus a *virga*, for the *scandicus*. It is difficult to understand, in these cases, why the copyists did not take advantage of the melodic-rhythmic notation of Bamberg which must have been so convenient to the singers.
 7. The five ascending sounds F, G, a, c, c, in the well-known final formula of the Graduals in the fifth mode (type, 'Prope est Dominus'), are written in S. Gall. 376 as five *strophici*, in S. Gall 339 and in Eins. 121 as two points and three *strophici*, while in Bamberg lit. 6 as three points and two *strophici*. The same variation is often noticed in the *bistropa* and in the *trigon praeipunctis*.
 8. One copyist writes a *franculus*, where another writes a *pes*; for instance, in the Gradual 'Sederunt principes', i.v. 'persecuti sunt'.
 9. In one MS is seen a *clivis* with *episema* before a pause, while in another

there occurs a *pressus major* with or without a 't', e.g. in the Introit 'Verba mea', i.v. 'orationis meae'.

10. A *bistropa* followed by a short *pes* is written as three *strophici* plus a *virga* in other MSS.

Numberless examples could be quoted which indeed, would be many more, if a comparative analysis were made embracing many other documents of the S. Gall notation. However, to avoid tedious enumeration, only two examples may be cited:

The excellent MS Laon 239, and Troyes 522, closely resemble each other. But, at the same time, there are remarkable differences. Troyes 522 never gives a point as an isolated neum above a syllable, and the use of letters in this MS is confined to the letter 't' (except very few 'a' 's) which as a rule, is put in a special place (Cf. p. 17).

In the Sequences, similar divergencies are noticeable; for instance, among S. Gall 376, 378, 380, 484, Eins. 121, and Bamberg lit. 5. In all these and in similar cases, there is no question of direct copying from one and the same prototype, because the several specimens are characterized by many peculiar and individual features. Thus, with reservations, these documents have a separate authority.

Dom Ferretti, l.c. has made a justified appeal to the historical fact that the medieval singers sang their melodies by heart, the memory replacing notation in guiding the voices. True, some of the copyists may have copied literally a document which they had at their disposal, but other copyists were in the habit of 'noting' by heart.

- From this, two results of comparative analysis confront the scholar:
- (a) The concordance, not only of melody and rhythm indications, but of the specimens of the basic notation (neum-types) of the same school.
 - (b) The divergencies, a few examples of which have been enumerated (irrespective of whether these be errors, variants, or equivalents).