

ON THE ORIGIN OF NEUMES

How did Latin neumes begin? And what developments lie between those beginnings and the first plentiful documents of neuming which date from about 900? A long line of speculations has failed to produce generally credited answers to these questions.¹ Figure 1 shows a stemma by Joseph Froger that can serve as orientation to the problem.² This does not address ultimate origins. Its 'original' is the archetypal neumatation of the Frankish–'Gregorian' mass propers, a lost formation compiled some time after neumatic beginnings. It goes on to the regional neume-species of 900, all ostensible out-growths of that archetype: *Ept* – German; *Cla* – north Italian; *Clu* – Cluny; *Dij* – Burgundian; *Den* – St Denis; *Lan* – Lorraine or 'Metz'; *Mur 3* – St Gall or 'Alammanian'; *Cha* – Breton; *Alb* – Aquitanian; *Ben* – south Italian/Beneventan. Between the unknown 'original' and the multiple neume-species around 900 an obscure evolution takes place. There is, in Froger's words, 'une sorte de nuée opaque. . . [une] zone brumeuse'.

The dates and places of the developments are similarly clouded. R.-J. Hesbert's *Sextuplex* in 1935 supplied an approximate shape of the Carolingian text-archetype of Gregorian chant – of the words without music – circulated in Frankish domains during the later eighth century.³ For the corresponding musical archetype – the texts plus neumes – no comparable shape has emerged. Spanish scholars like to speak of neumes going back as far as Gregory the Great.⁴ Yet

¹ S. Corbin, 'Neumatic Notations', *The New Grove Dictionary of Music and Musicians*, ed. S. Sadie, 20 vols. (London, 1980), xiii, p. 128: 'There have been many hypotheses concerning the origin of neumes, none of which has been completely satisfactory in all respects.'

² *Le graduel romain: Édition critique par les moines de Solesmes*, iv: *Le texte neumatique*, 2: *Les relations généalogiques des manuscrits* (Solesmes, 1962), p. 92.

³ R.-J. Hesbert, *Antiphonale missarum sextuplex* (Brussels, 1935).

⁴ G. M. Suñol, *Introduction à la paléographie musicale grégorienne* (Paris, 1935), pp. 30ff; H. Anglès, 'Gregorian Chant', in *New Oxford History of Music*, II: *Early Medieval Music up to 1300*,

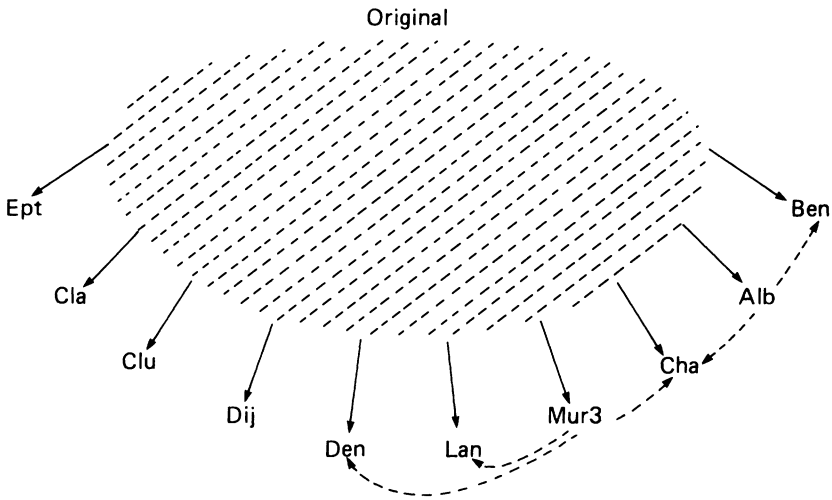


Figure 1 The stemma of Joseph Froger (1962)

the prevailing opinion is that of Solange Corbin, who saw the neumes as an invention of the earlier ninth century for the purpose of recording ancillary and novel music like lections, celebrants' chants, tropes, sequences and polyphony, while the central repertory of Gregorian propers remained consigned to oral transmission until about 900.⁵ Eugène Cardine cautiously endorsed this late application of neumes to the Gregorian corpus and placed the collection's origin 'between the Rhine and the Seine'.⁶ Corbin's view has also been adopted by Helmut Hucke and Leo Treitler, whose claims that oral-improvisatory techniques continued to shape Gregorian melodic transmissions of the ninth century and beyond it helps to support.⁷

ed. Anselm Hughes (London, 1954), pp. 106ff; R. Costa, 'Acotaciones sobre la antigüedad de la notación musical en occidente', *Anuario Musical*, 36 (1981), pp. 39–67.

⁵ S. Corbin, 'Les notations neumatiques en France à l'époque carolingienne', *Revue d'Histoire de l'Église en France*, 38 (1952), pp. 226–8; *idem*, 'Les neumes', in *Histoire de la musique*, 1: *Encyclopédie de la Pléiade*, 1 (Paris, 1960), pp. 690–4; *idem*, *Die Neumen, Paläographie der Musik nach den Plänen Leo Schrades*, 1/3 (Cologne, 1977), pp. 22–42; see also J. Froger, 'L'édition critique de L'*Antiphonale missarum* romain par les moines de Solesmes', *Études Grégoriennes*, 1 (1954), p. 156; J. Hourlier, 'L'origine des neumes', *Ut mens concordet voci: Festschrift E. Cardine*, ed. J. B. Göschl (St Otilien, 1980), p. 360.

⁶ E. Cardine, 'Vue d'ensemble sur le chant grégorien', *Études Grégoriennes*, 16 (1977), p. 174.

⁷ H. Hucke, 'Toward a New Historical View of Gregorian Chant', *Journal of the American Musicological Society* [JAMS], 33 (1980), p. 445: 'Through the studies of Solange Corbin it has become evident that the neumes are of Carolingian origin. They were developed in France

However the Corbin–Hucke–Treitler views have encountered resistance. Michel Huglo has ventured, in light of the close connections between the East and West Frankish branches of the noted tradition, that a Carolingian neumed archetype existed before the Carolingian *divisio imperii* of the mid-ninth century. That would disqualify something of Corbin’s late dating and the arguments that depend on it.⁸ Huglo has also subscribed to an origin of neumes as far back as 800.⁹ I have myself addressed the issue of chronology in a recent paper titled ‘Charlemagne’s Archetype of Gregorian Chant’. What is proposed there is the existence of a Carolingian–Gregorian neumed recension a full century earlier than has been supposed. It puts the neumes in wide use during the later eighth century, with copies of an authoritative noted archetype of the Frankish–Gregorian propers circulating around the end of that century.¹⁰ A corollary of this earlier date for the neumed archetype is a revised conception of the early written transmission: the melodies of the Gregorian mass propers were crystallised under Charlemagne in an authoritative neumed recension that left no substantial licence for oral-improvisational manoeuvre.

In the present paper, the focus shifts from chronology to the neumes themselves – to their nature and ways of transmitting the

in the ninth century. . . Perhaps neumes were developed and used at first for theoretical demonstrations, and only occasionally employed to notate a particular melody or to give a musical explanation here or there in a parchment manuscript.’ For Treitler, ‘the earliest practical notations served primarily a cueing function for celebrants reciting ecclesiastical readings and prayers. . . The notation of antiphons, responsories, and Mass-Propers items for the cantor and schola did not begin until the tenth century. . . In the beginning the principal tasks of notations for text collections were to indicate qualitative aspects of performance and to help the singer to adapt his melodic knowledge to the texts before him. They were thus practical notations, and they were tools for an oral tradition’; ‘Reading and Singing: On the Genesis of Occidental Music-Writing’, *Early Music History*, 4 (1984), pp. 176–7. Treitler speaks elsewhere of ‘the fact that the Gregorian Chant tradition was, in its early centuries, an oral performance practice. . . The oral tradition was translated after the ninth century into writing. But the evolution from a performance practice represented in writing, to a tradition of composing, transmission, and reading, took place over a span of centuries’; in ‘The Early History of Music Writing in the West’, *JAMS*, 35 (1982), p. 237.

⁸ M. Huglo, ‘De monodiska handskrifternas fördelning i två grupper, öst och väst’, *Helsingin yliopiston käytännöllisen teologian laitos: Käytännöllisen teologian julkaisuja*, 3 (1975), pp. 47–65.

⁹ M. Huglo and C. Durand, ‘Catalogue de L’Exposition des manuscrits notés de Saint Benoît sur Loire’, *Les sources en musicologie* (Paris, CNRS, 1981), p. 172: ‘La notation musicale. . . a été conçue, à l’origine, vers l’an 800/830.’ Huglo formerly accepted the Corbin view: ‘On the Origins of the Troper-Proser’, *Journal of the Plainsong and Mediaeval Music Society*, 2 (1979), p. 13: ‘Towards the end of the ninth century, when the notation of the complete repertory in *intero* was undertaken. . .’.

¹⁰ K. Levy, ‘Charlemagne’s Archetype of Gregorian Chant’, *JAMS*, 40 (1987), pp. 1–31.

Gregorian melodies. I will propose fresh scenarios for three early stages of neumatic practice: 1. ultimate origins; 2. ‘Charlemagne’s archetype’; 3. the neume-species *c.* 900. Stages 1 and 2 are ‘pre-historic’ in that no neumes survive from their times. Only for stage 3 are there actual neumes. The evidence is spotty, and my results cannot pretend to be more than conjectures.

I. ORIGINS: THE TWO METHODS OF NEUMING

Various explanations of neume origins are now in circulation.

a. Accents. Most often encountered is the theory that the ‘accents’ of late Classical antiquity – the Alexandrian ‘ten prosodic signs’: acute, grave, circumflex etc. – were the principal factors in origins.¹¹ Generally speaking, an acute accent would enter musical service as the indicator of a higher pitch than the one preceding; a grave accent, of a lower pitch; a circumflex, of a succession of higher and lower pitches. With the addition of some nuance signs like the quilisma, oriscus and liquescences, the system would be complete.¹² Advocates of this ‘accent theory’ tend to cite a south German statement of *c.* 1000 (Vatican City, Biblioteca Apostolica Vaticana, MS Pal. lat. 235) that ‘the notational sign called the neume comes from the accents’.¹³

b. Byzantine–Greek models. Latin neumes are also explained as derivatives of Byzantine notational practice.¹⁴ The Byzantine *oxeia* and *bareia* reproduce the Alexandrian acute and grave accents, so this amounts to a variant of the accent theory. Since the premises of Byzantine notational usage differ in part from those of the West and

¹¹ I. von Müller, *Handbuch der klassischen Altertums-Wissenschaft*, 1: *Einleitende und Hilfs-Disziplinen* (Munich, 1892), pp. 307ff.

¹² C. E. H. de Coussemaker, *Histoire de l’harmonie au Moyen Age* (Paris, 1852), pp. 149ff; P. Bohn, ‘Das liturgische Rezitativ und dessen Bezeichnung in den liturgischen Bücher des Mittelalters’, *Monatshefte für Musikgeschichte*, 19 (1887), pp. 29ff; concerning later discussions, see Corbin, *Die Neumen*, pp. 19–21.

¹³ *De accentibus toni oritur nota quae dicitur neuma*; P. Wagner, *Einführung in die gregorianischen Melodien*, II (2nd edn, Leipzig, 1912), p. 355.

¹⁴ The notion of Greco-Byzantine origin, going back to Riemann (*Studien zur Geschichte der Notenschrift* [Leipzig, 1878], p. 112), has been revived by C. Floros (*Universale Neumenkunde* [Kassel, 1970], II, pp. 232ff), whose theories should be approached with a caution indicated for the Latin notations by M. Huglo in *Revue de Musicologie*, 58 (1972), pp. 109–12, and for the Byzantine notations by M. Haas, ‘Probleme einer “Universale Neumenkunde”’, *Forum Musicologicum*, 1 (1975), pp. 305–22.

the origins of the Byzantine system have yet to be established, this theory is unsatisfactory.

c. Cheironomy. The explanation, given currency by André Mocquereau, is that musical neumes were written counterparts of choirmasters' hand-gestures, tracing melodic trajectories during performance.¹⁵ The late-medieval testimony is assembled by Huglo, who judiciously refrains from an endorsement.¹⁶

d. Punctuation-signs and language-usage. The theory that neumes were signs that were earlier used as text-punctuation comes ultimately from Bohn and Thibaut.¹⁷ Certain stylised forms that are employed as editorial markings and punctuations (question marks, commas, colons) in the literary texts and liturgical recitations of a given Carolingian region may in fact find use in the same region as neume-shapes for the *quilisma*, *oriscus* etc. The shapes of the punctuation-neume doublets differ so much from region to region that such local correspondences can scarcely reflect a common origin. The theory is nevertheless a point of departure for Treitler, who links the overall phenomenon of neume-origins to the Carolingian usage of text and language: 'The rise of music-writing is associated with the normalisation of the Latin language and its script, with the spread of writing and literacy, and with language-pedagogy. . . The strongest factors [in neume-origins] relate to the development of language in speech and writing and to the theory and pedagogy of language.'¹⁸

e. Ekphonic notations. Related in part to the Byzantine theory of origins and in part to that of punctuation and language is the derivation of Latin neumes from the ekphonic notations used in Byzantium between the ninth and fifteenth centuries to regulate the delivery of scriptural lections and ceremonial texts. This theory,

¹⁵ *Paléographie Musicale*, series 1, 1 (1889), pp. 96ff.

¹⁶ 'La chironomie médiévale', *Revue de Musicologie*, 49 (1963), pp. 153–71; the theory is rejected by Huckle, 'Die Cheironomie und die Entstehung der Neumenschrift', *Die Musikforschung*, 32 (1979), pp. 1–16.

¹⁷ Bohn, 'Das liturgische Rezitativ', pp. 45ff; J.-B. Thibaut, *Monuments de la notation ekphonétique et neumatique de l'Église latine* (St Petersburg, 1912), *passim*.

¹⁸ Treitler, 'Reading and Singing', pp. 186–208, cf. pp. 206–7; the same view is featured in his 'The Early History of Music Writing in the West', pp. 269ff, and 'Die Entstehung der abendländischen Notenschrift', *Die Musikforschung*, 37 (1984), pp. 259–67.

which also received its impetus from Thibaut, has found little support in scientific studies by later Byzantinists.¹⁹

f. Eclectic theories. Inasmuch as none of the existing theories by itself explains notational origins, there have been composites of two or three of them. A recent formulation by Dom Cardine combines elements of the accent, punctuation and cheironomy theories:

The Origin of Neumes. The first scribes of Gregorian melodies employed signs that were already used with literary texts, retaining essentially their original signification or modifying this in an analogous sense. [*Accent-theory:*] The acute and grave accents of the grammarians were by nature suited to distinguish high and low notes: hence *virga* and *tractulus*. [*Punctuation:*] Certain abbreviation signs were used because of the finesse of their design, to represent sounds that were lightly repeated: hence *strophæ* and *trigon*. Contraction signs were used for sounds particularly bound up with their neighbours: *oriscus*. The interrogative sign was chosen as the figure for a vocal phenomenon that lay close to the rising melos of an interrogative phrase: the *quilisma*. . . [*Cheironomy:*] The basic intention of the system was to translate the melody as gesture and fix the gesture as written sign. A neume is a gesture 'inked' upon the parchment.²⁰

Coming as it does from the doyen of musical Gregorianists – at the beginning of Cardine's masterful *Sémiologie grégorienne* – this commands respect, and in fact it embodies a significant kernel of truth. Yet if the simple suggestions that I now put forward come at all close to the mark, then the existing explanations of neume origins may be set aside. Neither accents nor punctuation and language nor

¹⁹ Thibaut, *Origine byzantine de la notation neumatique de l'Église latine* (Paris, 1907); *idem*, *Monuments de la notation ekphonétique et hagiopolite de l'Église grecque* (St Petersburg, 1913); C. Höeg, *La notation ekphonétique* (Copenhagen, 1935); M. Haas, *Byzantinische und slavische Notationen, Palaeographie der Musik*, 1/2 (Cologne, 1973), pp. 213–16; G. Engberg, 'Ekphonic Notation', *The New Grove Dictionary*, vi, pp. 99ff.

²⁰ 'L'origine dei neumi. I primi scrittori delle melodie gregoriane utilizzarono dei segni già usati nei testi letterari, conservando essenzialmente il loro significato originale o modificandolo in un senso analogo. L'accento acuto e grave dei grammatici era già per sua natura adatto a distinguere le note alte dalle note basse: virga e tractulus. I segni di abbreviazione furono usati, a causa della finezza del loro disegno, per rappresentare i suoni leggermente ripercossi: strophæ e trigon. I segni di contrazione furono attribuiti ai suoni particolarmente legati a quelli vicini: oriscus. Il punto interrogativo fu scelto per raffigurare un fenomeno vocale affine alla modulazione ascendente della frase interrogativa: quilisma. . . Alla base del sistema si trova l'intenzione di tradurre una melodia mediante il gesto e di fissare il gesto per mezzo del segno grafico. Infatti il neuma è un gesto "inchiostrato" sulla pergamena.' E. Cardine, *Semiologia gregoriana* (Rome, 1968), pp. 4–5. A similar omnibus is proposed by Dom Hourlier in his retrospective 'L'origine des neumes', p. 359: 'L'origine des neumes se trouve donc dans l'arsenal de signes autres que les lettres, dont dispose le copiste d'un text littéraire au ixe siècle.'

ekphonic neumes would be relevant. The Byzantine theory, a variant of the accents theory, merely avoids the issue. Only cheironomy will be seen to play a role in early neumatic developments, but with no bearing on ultimate origins.

How did neumes begin? My first undertaking is to dispose of a notion that has enjoyed a broad though largely tacit support. It is that all of the oldest neumes represent a single 'original' development. In its place I offer the notion of two separate developments representing two distinct 'methods' or approaches to the process of neumatation. For the moment these are designated Type 1 and Type 2. Type 1 is the earlier, Type 2 the later, and only Type 1 would put us in touch with neumatic origins. Let me make no mystery about this. The documents are well known and the fundamental observations were made long ago in a provocative study by Handschin. Type 1 is represented by the handful of surviving specimens that have so far been labelled as specimens of the 'St Amand' or 'Palaeofrank' notation. Type 2 comprises all other early Latin neume-species.

The study of the Palaeofrank notation began in the 1950s when Handschin and Jammers independently focused on an archaic neume-species found in a small number of examples from north-east France and north-west Germany.²¹ Shortly thereafter, Hourlier and Huglo amplified the discussion and supplied a comprehensive inventory of sources.²² There have been more recent discussions of the enigmas posed by the Type 1/Palaeofrank notations, but the state of the question has seen little advance beyond the formulations of the 1950s.²³

The views of Hourlier and Huglo were summarised in a stemma which – like that of Froger in Figure 1 – amounts to a comprehensive projection of the origin of neume-species. It is reproduced in Figure 2.²⁴ All the regional families again descend from a single lost

²¹ J. Handschin, 'Eine alte Neumenschrift', *Acta Musicologica*, 22 (1950), pp. 69–97; Handschin, 'Zu Eine alte Neumenschrift', *ibid.*, 26 (1953), pp. 87–8; E. Jammers, *Die Essener Neumenhandschriften der Landes- und Stadt-Bibliothek Düsseldorf* (Ratingen, 1952); Jammers, 'Die paläofränkische Neumenschrift', *Scriptorium*, 7 (1953), pp. 235–59, reprinted in Jammers's *Schrift Ordnung Gestalt*, ed. E. Hammerstein (Berne, 1969), pp. 35–58, which also contains (pp. 70–87) his fertile but erratic 'Die Entstehung der Neumenschrift'.

²² 'Notation paléofranque', *Études Grégoriennes*, 2 (1957), pp. 212–19.

²³ Stäblein, *Schriftbild der einstimmigen Musik* (Leipzig, 1975), pp. 27 (historical stemma), 28–9, 106–8; S. Corbin, *Die Neumen*, pp. 75–81; L. Treitler, 'The Early History of Music Writing in the West', pp. 263ff; *idem*, 'Reading and Singing', pp. 148ff.

²⁴ 'Notation paléofranque', p. 218.

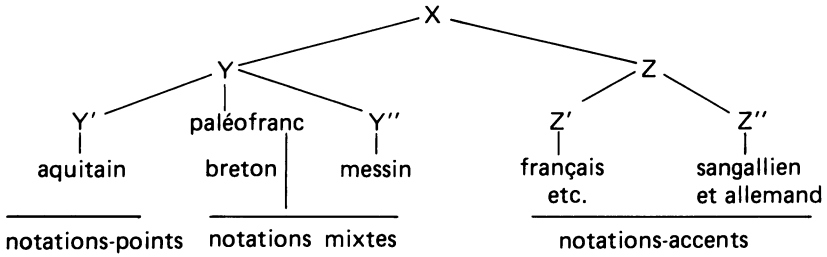


Figure 2 The stemma of Jean Hourlier and Michel Huglo (1957)

archetype, the Hourlier–Huglo ‘X’, Froger’s ‘original’. But Figure 2, by taking the Palaeofrank branch into account, improves on the stemma of Froger, for whom the Palaeofrank documents were an obstacle in the path of a critical edition of the Gregorian Gradual, hence were ignored. In Figure 2, the Palaeofrank branch has an early position among the mixed neumes (*notations mixtes*), between the accent-neumes (*notations-accents*) of the central French and German species on the one hand, and the point-neumes (*notations-points*) of the Aquitanian species on the other. Also grouped with these mixed notations, though later in time than the Palaeofrank and perhaps its direct descendants, are the neume-species of Brittany and Lorraine (‘messin’). Omitted for reasons of space are the Italian notations, ‘dont la carte est extrêmement complexe’, which are generically close to the ‘notations-accents’ and derive from the same single archetype ‘X’.

In Figure 3, I offer an altogether different representation of neumatic beginnings. Instead of a single written original from which all Latin neumes organically descend, I propose a stemma of three branches that coexist during a period of some centuries. The oldest branch is not written at all. It is memory: a melodic tradition of the Gregorian propers that was – as I shall say – ‘concretised’ in professional memories at the time written processes began. This remembered, reified melodic tradition went on to nourish two written branches during the early centuries of neumatic transmission.

Various issues raised by my stemma will be considered as the discussion unfolds. To begin, there is the position of the Palaeofrank species. This appears, not as the outgrowth of a single, all-inclusive neumatic development, but as an original written tradition that was

different in method and distinct in genealogy from all the other neume-species. One gauge of this Type 1/Palaeofrank independence can be taken from the geography of the sources. Handschin pointed out that the documents of Palaeofrank notation represent by and large the same regions in which the neume-species of Metz became dominant during the later ninth and tenth centuries. The archaism of the Palaeofrank species led him to suppose a chronological succession in which the Metz species (one might with Corbin now say the Lorraine species) supplanted the Palaeofrank in this central region of the Carolingian empire. Handschin suggested for the Palaeofrank the alternative name of ‘pre-Metz’ notation.²⁵

Liturgical and repertorial considerations now lead to a related conclusion. Previous siftings of the Palaeofrank materials give the impression that what is extant amounts to a mere scattering of music lying mainly outside the Gregorian tradition. However a careful examination suggests that a complete recension of the Gregorian mass propers once existed in Type 1/Palaeofrank neumes. Table 1 reproduces the inventory of sources compiled by Hourlier and Huglo. Altogether there are some twenty items, dated between the mid-ninth and the eleventh or twelfth centuries.²⁶ In the column headed ‘Foliation’ there are no complete Type 1/Palaeofrank collections, only fragments and marginalia. In the column headed ‘Description’, the neumed entries can be seen as a miscellany of classical texts (Horace: nos. 6, 9), Old Testament lections (Lamentations: no. 14), Carolingian music theory (Aurelian: no. 16; tonary – Noeane: no. 19), Carolingian ceremonial and liturgical music (*missa graeca*, *Laudes regiae*, litany: nos. 4, 15, 8), trope and sequence (nos. 2, 13, 18), Gregorian office propers (All Saints and Requiem: nos. 1 and 20), and Gregorian mass propers (nos. 3, 5, 11). Of the twenty items, then, only five are devoted to the central Gregorian repertory, and of these the office chants lie partly outside the standard corpus since the formula for All Saints (no. 1) was a Carolingian accretion.²⁷ Turning to the mass chants, the neumations seem to be limited to marginalia in two sacramentaries (nos. 3 and 5) plus additions to some eight folios of a missal at Paris (no. 11). On closer inspection, however,

²⁵ ‘Eine alte Neumenschrift’, p. 94; ‘Zu Eine alte Neumenschrift’, p. 88.

²⁶ ‘Notation paléofranque’, p. 216.

²⁷ Hesbert, *Antiphonale missarum sextuplex*, p. cix, n. 1; M. Huglo, *Les tonaires* (Paris, 1971), p. 32.

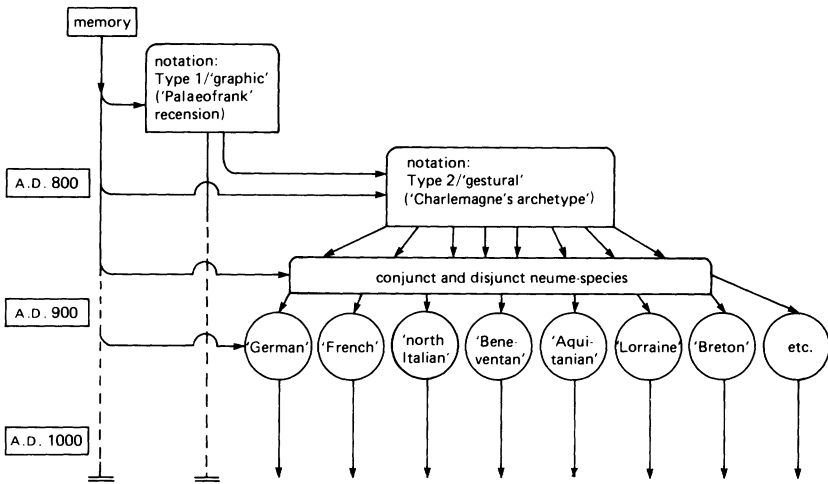


Figure 3 Gregorian propers: three-branch stemma

these three sources suggest a much richer picture of the Palaeofrank mass neumations.

The two sacramentaries now at Düsseldorf were written in north-east France. They are prayer books, not intended for musical entries. But as often happens with good-sized exemplars of the sacramentary and lectionary, additions have been made to the ample margins.²⁸ Among them are some four dozen chants of the mass proper with Type 1/Palaeofrank neumes, either noted in full or simply as incipits.²⁹ Among these are calendar-entries for the first, second and fourth weeks in Advent, for the last three days of Holy Week, and for the feasts of St Michael, the Holy Cross, and some others spread through the year. The selection may at first appear random, but the presence of the Advent Sundays, the First Sunday among them, and the wide selection of feasts suggests the possibility of a comprehensive neumed cycle.

There is support for this in Paris lat. 17305 (Table 1, no. 11), a full missal of the tenth (or perhaps ninth) century, again copied in north-east France.³⁰ Here the musical texts were part of the original plan,

²⁸ Jammers, *Die Essener Neumenhandschriften*, pp. 11ff, gives detailed indications of the contents.

²⁹ I am greatly indebted to Dr G. Karpp, Head of the Manuscript Division of the University Library at Düsseldorf, and Dr H. Finger of that institution, for their extreme kindness in facilitating my consultation of the two sacramentaries.

³⁰ *La notation musicale des chants liturgiques latins*, Paléographie Musicale, series II, 3 (Solesmes,

Table 1 *Inventory of Palaeofrank manuscripts (after Hourlier and Huglo)*

No.	Source	Foliation	Description	Date (century)	Provenance
1	Douai, Bibliothèque Municipale, 6	136	Office of All Saints	9th–11th	Marchiennes
2	Douai, Bibliothèque Municipale, 246	guard sheet	troped <i>Benedicamus</i> <i>Domino</i> settings	11th	Anchin
3	Düsseldorf, Landes- und Stadtbibliothek, D.1	marginalia	mass antiphons	9th–10th	Korvey
4	Düsseldorf, Landes- und Stadtbibliothek, D.2	6, 203	<i>missa graeca</i>	10th	Korvey
5	Düsseldorf, Landes- und Stadtbibliothek, D.3	marginalia	mass antiphons	11th	Cologne
6	Leiden, Bibliotheek der Rijksuniversiteit, P.L. 28	(cf. Paris 9792)	fragment from Horace		Beauvais
7	Paris, Bibliothèque Nationale, fonds lat. 2291	10, 12 ^v , 14 ^v	incipit+doxology	9th	St Amand
8	Paris, Bibliothèque Nationale, fonds lat. 2717	2 ^v , 128 ^v	marginalia and litany		St Amand
9	Paris, Bibliothèque Nationale, fonds lat. 9792		fragment from Horace		Beauvais
10	Paris, Bibliothèque Nationale, fonds lat. 15614	105	missal	12th	Soissons
11	Paris, Bibliothèque Nationale, fonds lat. 17305	9–16	incipit	11th	northern France
12	Paris, Bibliothèque Nationale, fonds lat. 17306	58, 176–	alleluia melismas	10th–11th	Amiens
13	Paris, Bibliothèque Nationale, n. acq. lat. 1618	91	Lamentations	9th?	St Bénigne?
14	St Omer, Bibliothèque de la Ville, 666	17 ^v	Aurelian of Réôme	early 12th	St Bertin
15	Valenciennes, Bibliothèque Municipale, 107	28	Laudes regiae	end of 9th	St Amand
16	Valenciennes, Bibliothèque Municipale, 148	71 ^v , 72, 84	pen trial	end of 9th	St Amand
17	Valenciennes, Bibliothèque Municipale, 150	36	trope <i>Quem vere</i>	early 12th	St Amand
18	Valenciennes, Bibliothèque Municipale, 294	19	Noacane	11th	St Amand
19	Valenciennes, Bibliothèque Municipale, 337	42	Requiem, Alleluia, responsoary	11th	St Amand
20	Valenciennes, Bibliothèque Municipale, 399	1, 7, 208			St Amand

although no neumes were intended since horizontal space was not left for melismas. Nevertheless, another four dozen chants of the Gregorian proper have had a Type 1/Palaeofrank neumatation of at least their incipits squeezed into the cramped interlinear space. The Paris missal's neumed repertory complements that of the Düsseldorf sacramentaries. Filling out the Advent–Winter calendar are the vigil and three masses for Christmas Day as well as the saints' days of Christmas week (Stephen, John, Holy Innocents, Silvester). Later on, the Type 1 noted entries become rarer as an initial determination to neume the entire cycle seems to give out. But there are notations for proper mass chants of the Second Sunday after Christmas, of Tuesday in the Fourth Week of Lent, Easter Thursday, Pentecost, the Second Sunday after Pentecost, and the April feast of Tiburtius and Valerianus. The combined repertories of the Paris and Düsseldorf manuscripts amount to some eight dozen items of the mass proper noted in Type 1/Palaeofrank neumes. They represent minor as well as major feasts that are distributed through the liturgical cycles of *temporale* and *sanctorale*. All this suggests a full Type 1/Palaeofrank neumatation. It would exist within the same territory of north-east France that by the end of the ninth century was the domain of the Lorraine neume-species.³¹

Thus we have one region with two neumatations, one earlier, one later. Why were there two successive neumatations of the Gregorian mass-proper in the Carolingian heartland? For an answer, I turn to the notations themselves, where I have to substantiate my claim that two different types or methods of neuming were involved.

Figure 4 shows the opening incises of the introit *Dum medium silentium* for the Second Sunday after Christmas. The notation is Type 1/Palaeofrank, after the Paris missal (see also Figure 5).³² This assortment of dots, strokes and twists scarcely differs from that in other neume-species. A two-pitch ascent can be noted here, as in

1963), Pl. 1, has a facsimile of fol. 15^v, col. A. Handschin considered this source only in his added remarks of 1953, and he recognised its significance only in part: 'Ein ganz liturgisches Gesangbuch mit dieser Notation besitzen wir nicht. Das wichtigste Dokument, ist wohl das Missale Paris 17305.' 'Zu Eine alte Neumenschrift', p. 87. His death two years later prevented a promised return to a fuller study.

³¹ J. Hourlier, 'Le domaine de la notation messine', *Revue Grégorienne*, 30 (1951), pp. 96–113, 150–8; certain Palaeofrank witnesses are included here (pp. 106–7) under their older Solesmes designation of 'notation de Saint Amand'.

³² Paris lat. 17305, fol. 16; the diplomatic transcription and square-note resolution in Figure 5 are those of Corbin's *Die Neumen*, pp. 78–9.

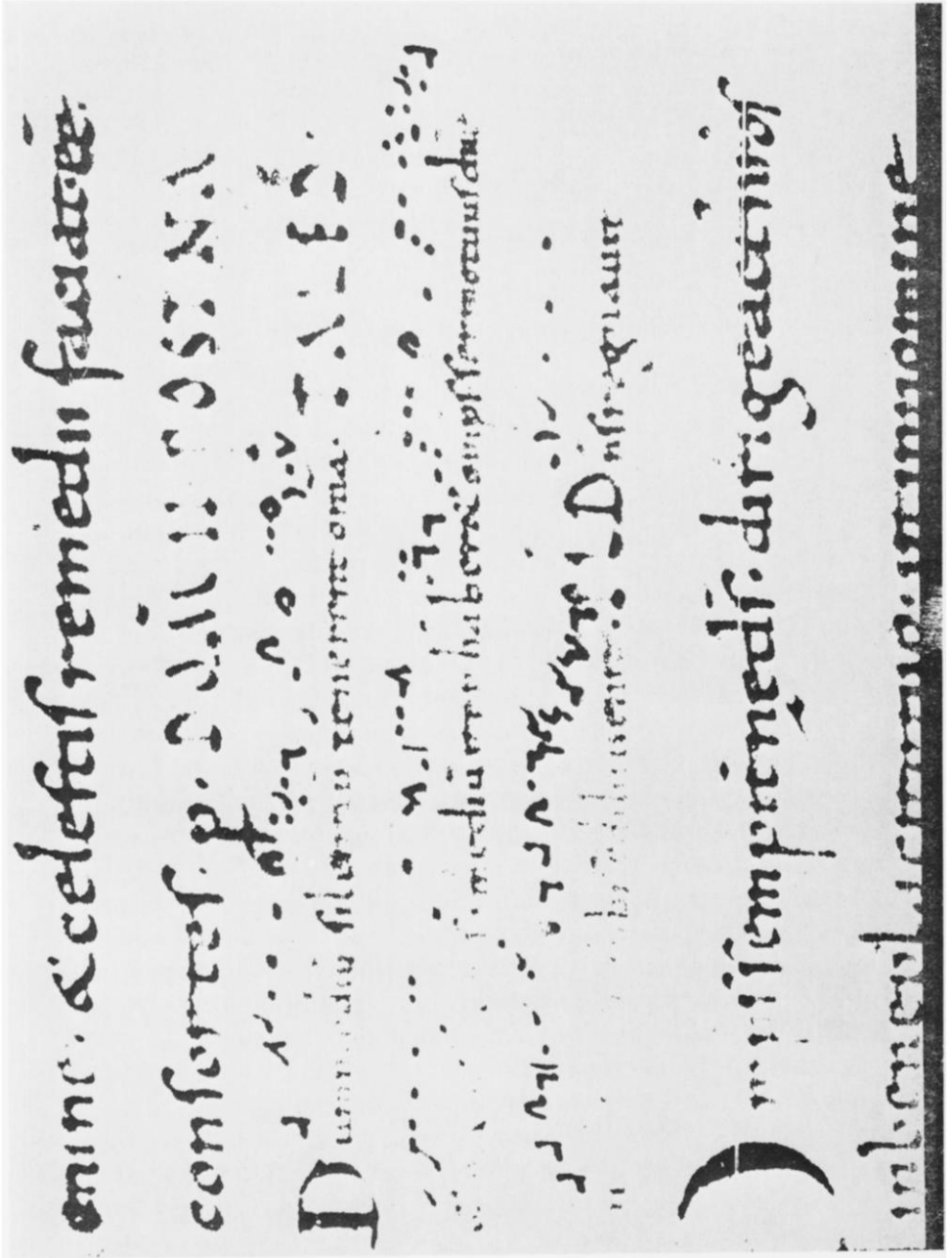


Figure 4 Type 1/Palaeofrank notation: opening of the introit *Dum medium silentium*, from the missal Paris, Bibliothèque Nationale, MS fonds lat. 17305

Kenneth Levy

Dum me - di - um* si - len - ti - um te - ne - rent

o - mni - a, et nox in su - o cur - su me - di - um

Figure 5 Opening of the introit *Dum medium silentium* (after Corbin) (cf. Figure 4)

most Type 2 species, with two dots, the second placed higher and to the right of the first, as on the final two pitches of *silen-ti-um*. Yet the two-pitch ascent in Type 1/Palaeofrank can also take the special form of a diagonal that combines the two dots into a single upward-angled stroke, as on the last two pitches of *me-dium*, on *te-nerent*, or on *et nox*. That is a departure from general Type 2 practice. Something similar is seen in the succession of three pitches, lower-higher-lower, which in Type 1/Palaeofrank can take the unusual form of a half-circle open to the bottom, as on *si-len-tium*.

Further instances of such unusual forms are found in Figure 6a (see also Figure 7), which shows the introit *Ad te levavi* for the First Sunday of Advent in the notation of the Düsseldorf Sacramentary D.1.³³ The neumatic ductus of Düsseldorf differs from that of the Paris missal, but the Type 1 anomalies are again present: the single-stroke podatus on *le-vavi*, *a-ni-mam*, and *con-fi-do*; the semicircular torculus on *ne-que* and *ir-ri-deant*. The familiar names for the Type 2 neumes (clivis, torculus, etc.) have little chance of being ‘original’ or applying to Type 1. They are of apparent Alammanian origin, and appear to have arisen no earlier than the eleventh century, with no likely connection to the first stages of neuming.³⁴

To fathom the notational anomalies, one should also approach them from the other direction. How do the neume-species of Type 2 differ from Type 1? Figure 6b shows a generic Type 2 notation for the same passage of the introit *Ad te levavi*. Where Type 1’s low-high-low sequence, found on *neque* and *irrideant*, is the down-turned half-circle,

³³ Stäblein, *Schriftbild*, 107, from which Figure 7 is taken, reproduces the full page, Düsseldorf D.1, fol. 126^v.

³⁴ M. Huglo, ‘Les noms des neumes et leur origine’, *Études Grégoriennes*, 1 (1954), pp. 58, 67.

On the origin of neumes

(a) > / . . / . / . M
 (b) ρ ✓ ✓ . . // . ρ ✓ ρ

Ad te le-va-vi* a - ni - mam me - am:

De - us me - us in te con-fi - do,

non e - ru - be - scam : ne - que ir - ri - de - ant me

in - i - mi - ci me - i:

Figure 6 The introit *Ad te levavi*, (a) in Type 1/Palaeofrank notation as in the sacramentary Düsseldorf, Landes- und Stadtbibliothek, MS D.1; (b) in Type 2/Alammanian notation

the Type 2 torculus in each instance prefaces the arc with an opening flourish: first a downward stroke, then upward, then arching down again; Type 1 lacks the initial downward stroke. Similarly with the succession of two pitches in ascent, or podatus: Type 1 can accomplish this with an ascending diagonal (as on *le-vavi*) while Type 2 again adds an opening flourish: a downward stroke for the low starting pitch, turning to an ascent for the higher ending. Similarly

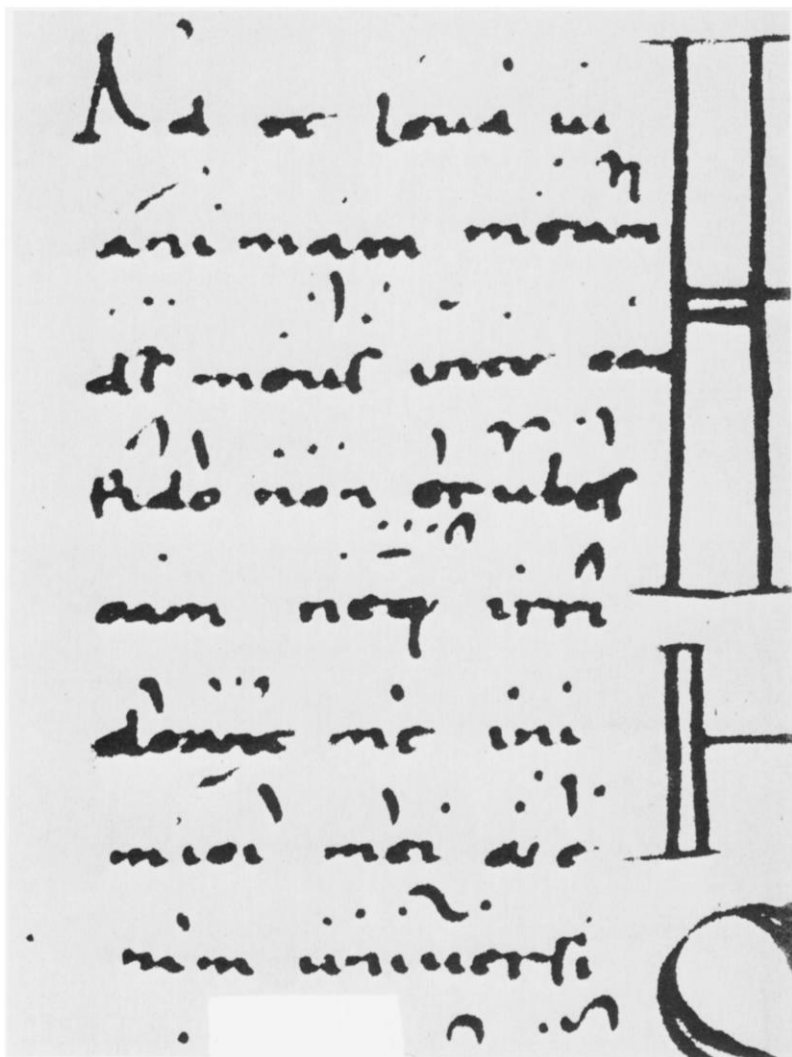







Figure 7 The introit *Ad te levavi* (cf. Figure 6)

with the succession of two descending pitches, or clivis: Type 1 can accomplish this with a downward diagonal (as on *me-us*, *confi-do*, *e-rubescam* etc.), but Type 2 prefaces the descending stroke with a small introductory flourish. However it is with the single pitches in isolation that the fundamental differences in procedure between the two types are clearest. Figure 8 compares the basic shapes of punctum and virga along with those of torculus, podatus and clivis.

On the origin of neumes

Square-note shape					
Name *	punctum	virga	podatus	clivis	torculus
Type 1 / graphic	•	(none)	/	\	∩
Type 2 / gestural	•	/	✓	∩	∪

* Applies only to Type 2.

Figure 8 Simple neumes, Types 1 and 2

In Type 2 there are two basic options for neuming an isolated pitch: for one that is unemphatic or lies relatively low, there is the plain dot or punctum; for one that is emphasised or lies relatively high, there is the ascending diagonal or virga. The Type 1 notation lacks that option: an ascending diagonal – the virga shape of Type 2 – in Type 1 signifies a two-pitch ascent or podatus.

The roster of Type 1 Palaeofrank signs, like that of all other neume-species, is made up of dots and strokes, single and combined, conveying information about melodic outlines and phrasings; there are rounded shapes indicating liquescence and melodic nuance; and there are altered and special shapes indicating diverse lengths.³⁵ Yet in the situations just seen, Type 1/Palaeofrank stands apart. It has the rising diagonal for the two-pitch ascent, a Palaeofrank option for the podatus, lacking the customary initial stroke. It has the dome-shaped torculus, lacking an initial stroke. And it has the descending diagonal for the clivis, again lacking the initial stroke. In each instance the Palaeofrank uses fewer strokes – its scribes have been more economical in translating the melodic substance onto the page. These procedural curiosities have been noticed by every student of the notation, but the explanations that have emerged are inconclusive. The stumbling-block may lie in supposing there was a single

³⁵ S. Corbin, in *Die Neumen*, 77, and in the neume-table accompanying her article 'Neumatic Notations' (*The New Grove Dictionary*, xii, p. 131), makes a distinction between a 'hypothetical archetype' of the Palaeofrank notation (as mirrored perhaps in Paris 2291) which lacked quilisma, oriscus, and liquescent punctum, and a 'surviving form' of the Palaeofrank (as in Paris 17305) which added such signs. Handschin argued long ago, with regard to the same manuscripts she cites, that this distinction lacks sufficient basis ('Zu Eine alte Neumenschrift', pp. 87–8).

development behind all the early neumations: in supposing that the Palaeofrank represents the same notational-methodological premises as the rest. I suggest instead that the economical behaviour of the Type 1/Palaeofrank notation is the symptom of a quite different process. What Type 1 offers is a chart of pitch-positions where each element of the melos, whether it appears on the page as part of a ligature or as a separate sign, is treated as a positioned point. Even the variety of curvatures used to signify ‘ornamental’ neumes (quilisma, oriscus, apostrophus) and liquescence are explainable in this way – as simple written analogues of the vocal nuances. If there is one word that describes this relationship between sound and sign it would be ‘graphic’. In what follows, I shall suggest this rationale for the Type 1 notation by substituting ‘graphic’ for the designation ‘Palaeofrank’. It accounts for the behaviour of the Type 1 notation: each sound, plain or nuanced, is given a positioned, simply descriptive shape.

Yet what of the Type 2 method? It has those ‘extra’ strokes at the beginnings of its podatus, torculus etc. And in some Type 2 species, the difference between relatively lower and higher pitches may be indicated by the option of dots or strokes, which is not available in Type 1. My proposal is that such features mark the Type 2 notation as no longer a chart of inert pitches, of abstract melodic positions (the method of Type 1), but as a chart showing analogues of up-and-down intervallic motion. The Type 2 neumes in essence reflect the contours of melodic flow: they show general melodic ‘gestures’. Where I have described Type 1’s exact plotting of pitch-loci and nuances as graphic, I would describe the Type 2 method, with its analogues of melodic flow, as ‘gestural’. To this I would add that here and only here would one of the traditional theories of neumatic origins seem to apply: the theory of cheironomy. As Cardine put it, ‘a neume is a gesture “inked” upon the parchment’.³⁶ But, in my projection, the cheironomy of Cardine’s inked gestures has no bearing on Type 1, no link to ultimate neumatic origins. It applies only to the revised notations of Type 2.

If the dichotomy of graphic and gestural methods is provisionally accepted, some further questions arise. Why were there two notational methods? Why two successive ‘editions’ of the Gregorian propers, an earlier one utilising a graphic method and then a revision

³⁶ Cardine, *Semiologia gregoriana*, p. 5.

On the origin of neumes

substituting a gestural method? My answer may open a long-sought window on neumatic origins. The Type 1/graphic's one-to-one renderings of pitch-position and nuance would suit the conditions of an initial transfer of chants from oral delivery to written record. One can imagine a commission charged with the responsibility of producing a pilot neumatation, turning to the method of Type 1/graphic, for establishing a first conversion from oral performance and some rounds of editorial change – whether simple retouches or more ambitious revisions. As for the Type 2/gestural method, its shapelier analogues of intervallic motions suggest a different set of conditions. Type 2 would be useful for choirmasters and singers who reproduced the repertory. The gestural diagrams were more vivid as representations of melodic flow, they rendered the chants more memorable for those who sang, they supplied visual paradigms that were easily convertible into hand and arm motions for those who guided singers. In short, where the Type 1/graphic neumes produced as it were a scholarly or scientific text, the Type 2/gestural neumes produced a 'performing edition'.

These identifications of the Palaeofrank method as graphic and original have been approached by earlier discussions, which do not, however, reach their full systematic and historical implications. In 1930, Paolo Ferretti, the clear-headed analyst of Gregorian centonate and accommodative processes, turned his attention to the origins of notation and in a few paragraphs outlined a theory of neume-origins that comes close to the views suggested here. For Ferretti, the full roster of neumatic signs grew from just five *radicaux* – 'root' signs. The five were well chosen: the acute and grave accents plus the three nuance-signs apostrophus, oriscus and quilisma. Ferretti interpreted all other pitch signs as *dérivés*, elaborations and combinations of the radicals, which were the *générateurs*.³⁷ The grip of the accent-theory is still there, as is the supposition that a single system underlies all Latin neumes. Ferretti's theory is eclectic, and he addresses only neumes of Type 2. Yet by narrowing the field to these particular roots he approximated what may be seen as the basic graphic premise of an original Type 1 notation.

Handschin's discussion of Palaeofrank neumes comes still closer. 'Might this be the notation used in France before the Roman singing masters arrived, before the Carolingian dynasty?' 'The principle of

³⁷ *Paléographie Musicale*, series 1, 13 (1930), pp. 66–8.

this notation is clear: the pitch-height corresponds to the higher or lower placement on the parchment.’ ‘Let us say: this might be the ideal diastematic notation, just like one that resolves everything into dots.’ ‘For our neume-type we can scarcely conceive of a point of departure other than a purely musical one, basically independent of speech.’³⁸

Recently, David Hiley prefaced a summary of current theories about neumatic origins with a remark indicating dissatisfaction with all of them: ‘it might be argued that the functional demands on the notation system were sufficiently strong to initiate development without drawing upon any pre-existing system’.³⁹ Hiley did not elaborate, but it is a practical explanation of this sort that I have advanced, and will now try to situate within the historical context of my three-branch stemma (Figure 3).

I have suggested some of the background for my two neumatic methods by assigning to Type 1/graphic the status of original neumes. The pre-history of Type 1 is difficult to assess. Its elementary processes may be age-old. Its survivals into the tenth or eleventh century, well after Type 2/gestural became established, suggest that Type 1 was previously well entrenched. Inasmuch as significant events – among which I count the invention of neumes – are more likely to reflect significant than trivial causes, the origins of Type 1 may reach back to Gregory the Great, under whom an authoritative revision of the Antiphonale seems to have been issued.⁴⁰ Isidore of Seville’s statement that ‘sounds perish . . . because they cannot be written down’ has been an obstacle to putting musical neumes in

³⁸ ‘Wäre dies etwa diejenige Notation, welche im Frankenreich im Gebrauch war, bevor die römischen Gesangsmeister ins Land kamen, also vor der Karolingerdynastie?’ (‘Eine alte Neumenschrift’, p. 76). ‘Das Prinzip dieser Neumenschrift ist klar: dem Tonhöhen-Grad entspricht der höhere oder tiefere Ort auf dem Pergament’ (*ibid.*, p. 78). ‘Sagen wir: sie *könnte* [Handschin’s italics] die ideale diastematische Neumenschrift sein nicht weniger als eine solche, die alles in Punkte auflöst’ (*ibid.*, p. 81). ‘Es ist kaum anders denkbar, als dass wir für unseren Neumentypus einen grundsätzlich *von der Sprache unabhängigen* [my italics], einen rein musikalischen Ausgangspunkt annehmen müssen.’ (*ibid.*, p. 82). However Handschin, like Ferretti, was bound to the concept of a single origin for all the neumespecies, and ultimately to the derivation of neumes from accents: ‘Die Ableitung der Neumen von den Akzenten, die ich nicht abgelehnt, sondern nur eingeschränkt haben möchte . . .’ (*ibid.*, p. 83).

³⁹ Article ‘Notation’, § III, 1 (iii) [Western Plainchant], *The New Grove Dictionary*, xiii, p. 345.

⁴⁰ C. Callewaert, ‘L’oeuvre liturgique de S. Grégoire’, *Revue d’Histoire Ecclésiastique*, 33 (1937), pp. 306–26; K. Gamber, *Codices liturgici latini antiquiores*, 2nd edn (Freiburg Schweiz, 1968), pp. 492ff.

Gregory's time. A recent revaluation of the statement may leave a 'Gregorian' notation again tenable.⁴¹ But a likelier occasion for the first neumes would be the revision of the liturgy that was set in motion by the Frankish monarch Pepin during Pope Stephen II's visit to France in 753–4.⁴² The conversion of Frankish church music from Gallican to Roman use may have brought about the Type 1/graphic method during the decades following. It remains open whether the neumes were actually a Frankish invention or a cooperative Italo-Frankish or even an earlier Italian one.

As for the change from the Type 1/graphic method to the Type 2/gestural with its enhanced support for memorisation and performance, the genesis of the gestural method may be linked to the promulgation of the authoritative Frankish–Gregorian neumed antiphoner – the antiphoner I would call 'Charlemagne's archetype' and date *c.* 800.⁴³ Whatever the specifics of chronology, the conversion from graphic to gestural need not have taken much time. Differences in musical substance are slight between the two recensions, and the notational modifications required could have been accomplished in weeks rather than years.

With this my general proposals concerning neume-origins are complete, but some related issues need consideration. One is the importance accorded under existing theories of origin to the distinction between accent-neumes, which set the chant-melos mainly in ligatures (as in the Alammanian neume-species), and point-neumes, which set much of it as separate dots (as in the Aquitanian and Breton species). This dichotomy of accents–points is deeply embedded in earlier theories of neume-origins, and it retains its importance in the projection of Hourlier and Huglo (see Figure 2).⁴⁴ Because the Palaeofrank notation must be classed as a point notation, it raises a problem for advocates of the accent theory who are obliged to explain why a point notation should be more archaic than the earliest one with accents. However, Handschin recognised much of the inadequacy of the accents/points:

⁴¹ R. Costa, 'Acotaciones'. Isidore's wording: 'Nisi enim ab homine memoria teneantur soni, pereunt, quia scribi non possunt'; *Isidori hispalensis episcopi etymologiarum sive originum*, ed. W. M. Lindsay, 1 (Oxford, 1911), lib. III, xv, p. 2.

⁴² C. Vogel, *La réforme culturelle sous Pépin le bref et sous Charlemagne* (Graz, 1965).

⁴³ 'Charlemagne's Archetype', *JAMS*, 40 (1987), pp. 1–31.

⁴⁴ A classic exposition of the theory is given by Ferretti in *Paléographie Musicale*, series 1, 13, pp. 62ff.

One might come to a basically different distinction between neume-types than the usual one of stroke vs. point neumes, *neumes-accents* vs. *neumes à points superposés*. The criterion is perhaps not that of connected or separated ductus, but rather that in one case the tone is expressed as a *position* on a vertical scale while in the other it is expressed as a rising *stroke*.⁴⁵

In my scheme (Figure 3), the accent/point dichotomy has no connection at all with neumatic origins – with the Type 1/graphic method. It involves only the neume-species of the Type 2/gestural method. For the nomenclature of accents and points, with its implied endorsement of the accent theory of origins, I would substitute the more neutral designations of ductus as being either conjunct or disjunct, where ‘conjunct’ represents the species which make liberal use of ligatures, and ‘disjunct’ those which tend to resolve the melodic motions into separate signs. My illustrations of Type 2 notation (Figures 6b and 8) have taken the shape of a generic conjunct ductus, and in the next part of this paper I shall consider the neumatation of Charlemagne’s archetype and offer reasons for supposing that this original of the Type 2 recension had such a ductus. However, the gestural rationale would underlie all Type 2

⁴⁵ ‘Man könnte daher zu einer anderen Grundeinteilung der Neumentypen gelangen als die übliche: Strich und Punktneumen, neumes-accents et neumes à points superposés. Das Massgebende ist vielleicht nicht die verbundene oder getrennte Schreibung, sondern dies, dass im einen Fall der Ton nur durch einen *Ort* der Vertikaldimension, im anderen auch durch eine aufsteigende *Strecke* dargestellt ist.’ *Acta Musicologica*, 22 (1950), p. 80. Accents and points, however, play a continuing role, as in recent theorisings by Treitler (‘The Early History of Music Writing in the West’, pp. 237–79; and ‘Reading and Singing’, pp. 135–208). The neo-nomenclature of ‘iconic’ and ‘symbolic’ scripts used in the former (p. 254) comes down to the old accents and points. Treitler’s ‘A’ or ‘symbolic’ scripts are the neume-species 1–6 and 11–12 of the table adapted (*ibid.*, p. 246) from Corbin’s *Neumen*, beginning of the Anhang: 1. St Gall; 2. England; 3. Burgundy; 4. Chartres; 5. Nevers; 6. Normandy; 11. Catalan; 12. Bologna; all have been conventionally classed as accent-neumes. Treitler’s ‘B’ or ‘iconic’ scripts are neume-species 7–10 of Corbin’s table: 7. Lorraine–Messine; 8. Palaeofrankish; 9. Breton; 10. Aquitanian; of these, the Lorraine, Breton and Aquitanian notations have been conventionally classed as point-neumes. The grouping of the Palaeofrankish neumes with them perpetuates the conception that Handschin in 1950 undertook to correct. Concerning the priority of accents or points, Treitler sums up: ‘Is an historical development vis-à-vis symbolic and iconic writing discernible? In the present state of our knowledge we cannot give chronological priority to one or the other notational mode. Specifically, we do not know whether the Paleofrankish and early Aquitanian scripts, on the one hand, or the Germanic ones, on the other, were the earliest ones in use. . . .’ (‘The Early History of Music Writing in the West’, p. 254). In a curious statement two years later he abandoned the issue of origins: ‘The question was left open [in 1982] whether the first notations were predominantly symbolic or iconic. Now we can answer: “both.” The notations of the treatises are predominantly iconic. The practical notations began as predominantly symbolic systems. Which of the two had actual temporal priority is not a question of the greatest historical import’ (‘Reading and Singing’, pp. 177–8).

notations, and it would be as much a part of the species with disjunct ductus – of the ‘notations à points superposés’ of Brittany, Occitaine, Lorraine, Nonantola etc. – as it is of the conjunct species of St Gall, Burgundy, central Italy etc. Some of the disjunct species, like that of Lorraine, have clear indications of an underlying conjunct basis, as can be gauged from the tabulations of Laon and St Gall neumations in the *Graduale triplex*.⁴⁶ In some other disjunct species, enough cursive patterns remain to document an underlying gestural method and conjunct conception. Early specimens of Aquitanian notation show more traces of conjunct ductus than later ones.⁴⁷ The indications are rarer for the disjunct species of Brittany and Nonantola. Yet even if the gestural impulses are resolved to the point where they are no longer manifest on the page, the rationale would remain: each dot, tractulus, uncinus, apostrophus etc. in the disjunct species of Type 2 would represent, not a fixed pitch-locus as in Type 1/graphic, but a point of arrival or departure, a node or target, in a continuity of gestural intervalllic motions.

A second issue regarding Type 1 is its survival into the tenth century and beyond.⁴⁸ Why should an older, graphic method persist after a newer, gestural method was established around 800? One answer may be that most examples of Type 1 are not excerpted from standard recensions like those of the Mass and Office Antiphoners, which tended to impose the newer notational method. The classical texts, tropes, sequences, and elements of the *missa graeca* (Table 1, nos. 2, 4, 6, 7, 9, 13, 18),⁴⁹ may be seen as occasional or private jottings that readily continued in the older system. The theoretical entries (nos. 16 and 19) were destined for consultation, not performance, which would have lessened the impulse to put them in the performance-orientated Type 2 neumes. As for the mass and office

⁴⁶ *Graduale triplex seu graduale romanum . . . ornatum neumis laudunensibus (cod. 239) et sangallensibus* (Solesmes, 1979).

⁴⁷ Corbin, *Die Neumen*, Taf. 19 (Paris, Bibliothèque Nationale, MS fonds lat. 1240; tenth century) and Taf. 20 (Paris, Bibliothèque Nationale, MS fonds lat. 903; eleventh century) with neumations for the Improperia; M. Huglo, ‘La tradition musicale aquitaine. Répertoire et notation’, *Liturgie et musique (ixe – xive s.)*, Cahiers de Fanjeaux 17 (1982), Pl. v, showing processional antiphons in the ‘ninth-century’ neumatation of Albi, Bibliothèque Municipale, MS 44.

⁴⁸ The datings are given in the Hourlier–Huglo table (see Table 1 above).

⁴⁹ On the *missa graeca*, C. Atkinson, ‘Zur Entstehung und Überlieferung der “Missa graeca”’, *Archiv für Musikwissenschaft*, 39 (1982), pp. 113–45; the Type 1 neumatations (as in Düsseldorf D.2 and Vatican City, Biblioteca Apostolica Vaticana, MS Reg. lat. 215) would reflect the original dictation, compilation etc.; the change to Type 2 would come as the material began to spread.

probers (nos. 1, 3, 5, 11, 20), these again are miscellaneous additions, compressed within margins and between lines of manuscripts that were not intended for neumes. They would reflect the practicality of conservative scribes, clinging to the space-saving Type 1 'graphics' for what amounted to personal memoranda.

Another in this miscellany of Type 1 issues is the variety of ductus and origins of the preserved documents. So long as the 'Palaeofrank notation' is viewed as just one regional style among a number of such styles, the differences raise problems. But if Type 1 is viewed as a 'method' that was applicable at different times and places, it is reasonable for the surviving specimens to show the palaeographic and geographical diversity they do.

A final issue is the occasional appearance among the Type 1 neumes of Type 2 features: a 'gestural clivis' instead of a graphic descending diagonal, etc. Such departures from systematic rigour are likely to be the lapses of scribes who were customary notators in Type 2.

II. 'CHARLEMAGNE'S ARCHETYPE' AND THE EVOLUTION OF NEUME-SPECIES

From the first stage of Latin neumes, that of origins, I turn now to the second and third stages. The second focuses on the Frankish–Gregorian archetype: the lost 'original' of Froger's stemma (Figure 1), the 'X' of the Hourlier–Huglo stemma (Figure 2), the model collection of Gregorian mass probers in Type 2/gestural neumes that I would date to the end of the eighth century and identify as 'Charlemagne's archetype'. The third stage concerns the transformations of the written Gregorian tradition from that archetype through Froger's 'zone brumeuse' to the point where our first substantial documents of neuming appear – the neume-species of *c.* 900 (see Figure 1). The essential point is, **what kind of neumatation did the archetype have**: what single model can account for the palaeographic variety of the neume-species? It is here that Dom Cardine and his cohort of Gregorian semiologists have been most vulnerable. The failure to define an archetypal neumatation capable of generating the multiplicity of neume-species has clouded their impressive findings. In my view, the semiologists are correct in supposing that there was an authoritative neumed archetype behind the neume-

species of 900. Yet a number of factors need to be redefined and freshly combined in order to clarify the development. There are six points to my presentation. The first three address the rationale of the lost archetype: 1. an earlier date; 2. a conjunct, nuance-poor archetype; 3. a memory-resident, concretised melos. The last three consider the emergence of the neume-species: 4. an eroding memory and supplemented notation; 5. copying from dictation; and 6. a 'gestural mind-set'. Some of the points will be relatively familiar, others will be more novel. Taken together, they may explain the hitherto obscure neumatic shape of the archetype and the problematic descent of the neume-species.

1. An earlier date. In beginning this paper I stated that many recent suppositions about neume origins are based on Mlle Corbin's assertion that the earliest Frankish–Gregorian neumed collections were compiled only *c.* 900, and the distinctive neumatic ductus of St Gall, Lorraine, Aquitaine, Brittany etc., which first appear about that time, stand at or near the beginning of the noted Gregorian tradition.⁵⁰ In a companion paper, I have argued that a neumed Gregorian archetype was in existence as early as *c.* 800, promulgated as 'Charlemagne's archetype' – as a central factor in the Frankish strategy of liturgical-musical unification.⁵¹ In the present paper I have suggested this was the first major application of gestural neuming. An advantage of setting the Gregorian neumatation earlier is that it allows a full century for the palaeographic evolution of the neume-species, which is awkward to explain if neumatation itself begins only around 900.⁵²

2. A conjunct, nuance-poor archetype. Yet the questions remain. What sort of neumatation did Charlemagne's archetype have? What single palaeographic model can account for the diversity of shapes and techniques around 900? Let me begin with two suggestions. First, that the archetypal neumatation had a conjunct rather than a

⁵⁰ See notes 5–7 above; also Huckle, 'Toward a New Historical View of Gregorian Chant', p. 445: 'the different regional paleographic styles go back to the very beginning of neume notation'.

⁵¹ 'Charlemagne's Archetype'.

⁵² Lawrence Gushee observed long ago, 'It is also possible that diverse styles of notation had already evolved between 850 and 900.' 'The Musica disciplina of Aurelian of Réôme' (PhD dissertation, Yale University, 1963), p. 257.

disjunct ductus: the tendency was to dispense the melos in ligatures, as in the Alammanian species, rather than resolve it into separate points, as in the Lorraine and Breton species. To this extent I would endorse the basic choice by Dom Froger in his edition of the *Graduel romain*, whose sample chants for the first Advent mass show a substantially Alammanian ductus.⁵³ My second suggestion is that the archetypal neumatation was not ‘nuance-rich’ (amply provided with specifiers of rhythmic and melodic detail) but ‘nuance-poor’ (sparing in such provisions). This accords less well with Froger’s samples or with a long line of received opinion. Ever since the first arguments concerning the relative authority of archaic Gregorian neumatations,⁵⁴ the prevailing assumption has been that the earlier neumatations were more lavish in specifications of melodic nuance and rhythmic detail while the later ones became progressively impoverished.⁵⁵ The nuance-rich neume-species, in particular the Alammanian, are favoured for their wealth of pitch-specifiers and nuance-indicators – strokes (*episemata*), modified shapes (liquescences etc.), ‘Romanus letters’, and *coupures* (neumatic disjunctions indicating rhythmic values). As found in such exemplars as the cantatorium St Gall, Stiftsbibliothek, MS 359 (c. 900) and the gradual Einsiedeln, Stiftsbibliothek, MS 121 (c. 1000), these describe the Gregorian melodic substance in impressive detail.⁵⁶ The traditions of Lotharingia, Brittany, Ile-de-France, Aquitaine and Italy have received less attention because of their lesser quotients of detail. The results are apparent in the Paléographie Musicale, which operated for half a century before an Italian mass-book was reproduced in facsimile; in the Solesmes *Graduale* of 1908, which relied on the Alammanian readings for most of its rhythmic and melodic detail; and in Froger’s sample reconstructions for his ‘édition critique’.

Yet when all is said, these fine points of performance practice may indicate quite another evolution of the early notations. Time and again in singing through the *Graduale triplex* one comes upon the

⁵³ *Le graduel romain. Édition critique*, iv/2: *Le texte neumatique: Les relations généalogiques entre les manuscrits*, pp. 69–86.

⁵⁴ Froger, ‘L’édition critique de l’*Antiphonale missarum romain*’, pp. 151f.

⁵⁵ Dom Cardine makes essentially this point: ‘On constate en effet d’une façon générale que les manuscrits sont en accord entre eux pour noter les particularités les plus fines, d’autant mieux qu’ils sont plus anciens. . .’; in ‘A propos des formes possibles d’une figure neumatique: le pes subbipunctus dans les premiers manuscrits sangalliens’, *Festschrift F. X. Haberl*, ed. F. A. Stein (Regensburg, 1977), p. 68.

⁵⁶ Paléographie Musicale, series II, 2 (1925) and 4 (1896).

Alammanian neumes describing a particular nuanced melodic situation with a particular array of explicative signs while for the same situation the Lorraine neumatation has a different, partly conflicting notational array.⁵⁷ Since the underlying melodic substance is the same, down to the fine points, a reversal of the accepted historical sequence is worth considering: instead of a nuance-rich archetype whose wealths of specifiers progressively erode, a nuance-poor archetype – a spare neumatic skeleton – whose basic specifications are then diversely clarified. The notion of a nuance-poor archetype is not without precedent, much of it again being anticipated in Handschin's discussion of the Palaeofrank notation.⁵⁸ Its provisions would, as I see this, include the factors of liquescence, quilisma, oriscus and their compounds; also the distinctions between longer and shorter durations of single pitches as expressed by points, their elongations, and *strophici*. These are all used by the Type 1/graphic notations. By the same reckoning, a nuance-poor archetype would not include *episemata* or *coupures*, whose diffusion is localised, and there would be few if any auxiliary letters.⁵⁹

To my earlier proposal that the Type 2/gestural archetype had a conjunct rather than a disjunct ductus, I would thus add that it had a nuance-poor rather than a nuance-rich neumatation. Once the historical perspective is adjusted, it is not surprising if corroborative indications should appear. I have shown signs of a conjunct, nuance-poor archetype in the close agreements of detail between the archaic, nuance-poor neumatations of Prüm and Benevento for the offertories *Factus est repente* and *Angelus Domini*.⁶⁰ Moreover, a survey of tenth- and early eleventh-century copies of the mass-antiphoner suggests that the majority of surviving early neumatations were close reflections of a conjunct, nuance-poor archetype. Dom Froger in 1962 offered

⁵⁷ For a simple instance, Cardine, *Sémiologie grégorienne*, Ex. 32; for others, many pages of the *Graduale triplex*.

⁵⁸ 'Diese "gregorianische" Neumensippe scheint sich tatsächlich in ihren frühesten erhaltenen Vertretern wenig um rhythmische Ausdrucksmöglichkeiten zu kümmern. Im 9. und 10. Jh. dringen dann umgekehrt in die "gregorianischen" Neumenschriften teilweise rhythmische Elemente ein. . .'; 'Eine alte Neumenschrift', p. 82. The position is picked up in a recent review of Göschl's *Sémiologische Untersuchungen* by Hartmut Möller: '... die vorherrschende Sichtweise, dass diese hochdifferenzierte Notation den zeitlichen Ausgangspunkt für die frühdeutsche Neumenschrift bildet verdient . . . eine Überprüfung'; *Die Musikforschung*, 38 (1985), p. 69.

⁵⁹ Cardine's classic exposition of *coupures* in *Sémiologie grégorienne*, ch. 9, is based on St Gall procedures.

⁶⁰ Levy, 'Charlemagne's Archetype'; the discussions of Figs. 4 and 6.

ten sub-families as the bases for his critical edition of the Gregorian Gradual (see Figure 1 above). Most of the ten have nuance-poor neumations. Their origins reach from Arras, Ile de France, Dijon and Epternach in the Frankish north, through Ravenna, Abruzzi, Umbria and the Beneventan zone in the Italian south.⁶¹ They are not just provincial copies, from places where nuances might casually slip away, since among their origins are such bulwarks of Carolingian cultural orthodoxy as Corbie, St Denis, Tours and Prüm. And they are not just late copies, since the Mont Renaud manuscript is likely to have received its neumes still during the tenth century, some generations after the earliest nuance-rich copies (St Gall 359 and Laon, Bibliothèque Municipale, MSS 266 and 239).⁶²

3. A memory-resident, concretised melos. Thus the written means for specifying melodic detail may differ from one copy to the next, but the fine points of melodic substance are constant. How was the melodic integrity maintained? The safeguard was memory. Huglo put this long ago: 'l'invention de la notation neumatique. . . . facilita l'effort de mémoire, sans le supprimer totalement.'⁶³ Cardine has spoken of 'la pensée du compositeur telle qu'elle était conservée dans la mémoire du premier notateur'.⁶⁴ Yet if the acknowledgement of the memory factor is widespread, a certain emphasis remains to be drawn from it concerning the nature of the melos it preserved. This is that the minimally pitch-specific, minimally nuance-indicative neumations of the nuance-poor archetype were viable transmitters

⁶¹ *Le graduel romain. Édition critique*, iv/2, p. 64; the chief witnesses of the 'écriture sangallienne' (Gal 1, Mur 3, Bab, and Gal 2) and 'messine' (Lan) would count as nuance-rich. But for Froger's other species the neumes fit that description to a much lesser degree or not at all. Froger dropped the north Italian manuscript Milan, Biblioteca Trivulziana, D. 127 in a subsequent presentation, reducing the number of sub-families to nine: 'The Critical Edition of the Roman Gradual by the Monks of Solesmes', *Journal of the Plainsong and Mediaeval Music Society*, 1 (1978), pp. 85–6. I would retain this Civate missal as a reflection of the nuance-poor original, and add to the list other early copies such as Cambrai, Bibliothèque Municipale, MS 75(76) (Arras); Paris, Bibliothèque Nationale, MSS fonds lat. 9434 (Tours), 18010 (Corbie) and 9448 (Prüm); Baltimore, Walters Art Gallery, MS 11 (Forlimpopoli–Ravenna); Vatican City, Biblioteca Apostolica Vaticana, MSS Vat. lat. 4770 (Abruzzi) and Vat. urb. lat. 560 (central Italy).

⁶² Paléographie Musicale 16: *L'Antiphonaire du Mont-Renaud* (Solesmes, 1955); on the origin and date of its notation: *Le graduel romain*, II (1957), 157, and the remarks by M. Huglo in *JAMS*, 32 (1979), p. 556. Concerning the earliest nuance-rich sources there is the important article by P. Jeffery, 'An Early Cantatorium Fragment Related to MS. Laon 239', *Scriptorium*, 36 (1982), pp. 245–52.

⁶³ 'Les noms des neumes', p. 53.

⁶⁴ Cardine, 'A propos des formes possibles d'une figure neumatique', p. 61.

of the Gregorian melos because that melos was imprinted in all its fullness upon professional memories. The church musicians who opted for the inexact aides-mémoire of staffless neumes – for skeletal notations that ignored exact pitch-heights and bypassed many nuances – were content with incomplete representations of melodic substance because the full substance seemed safely lodged in memory. This simple calculus of notation and memory says that the Gregorian chants from their first neumatation were no longer ‘improvised’ – that few if any options were left for the strategies and vagaries of individual performers. The chants were concretised, reified entities, recognisable in their specific melodic dress, integrally stored and reproducible from memory.

4. An eroding memory and supplemented notation. Then the back-up memories began to fail. The written technology that became the partner of memory, by its availability and exercise rendered memory more fallible. Enterprising scribes might have responded to the inadequacies of the authorised neumatation from the start by devising improvements in specifying pitch, nuance and duration – improvements for the sake of system itself. But more purposeful efforts to increase written specificity would have been a response to increasing concern for the integrity of the melodic tradition. The neume-species *c.* 900 would represent a century’s-worth of notational tinkering, carried out in different ways at different places, and with particular zeal at proud schools like those of Laon and St Gall.⁶⁵

5. Copying from dictation. Yet there may be more to the diversity of neume-species. Our preserved neumatations of the Gregorian mass propers are in most cases simple duplications of a written model. Reflecting ultimately the notational shapes in Charlemagne’s archetype, they were recorded from a direct viewing of that original or one of its descendants. But it was also possible to take copies from dictation. A setting-down of heard sounds was a natural process for musicians, the way any musical text was originally established. It offered the possibility of speed and convenience, with simultaneous

⁶⁵ Carolingian Laon is the focus of Peter Jeffery’s ‘An Early Cantatorium Fragment’ and of recent studies by John J. Contreni: *The Cathedral School of Laon from 850 to 930: Its Manuscripts and Masters* (Munich, 1978); *Codex Laudunensis 468: A Ninth-Century Guide to Virgil, Sedulius, and the Liberal Arts* (1984).

duplications from a single, perhaps difficultly accessible exemplar.⁶⁶ One can imagine two parallel tracks for the Gregorian musical transmission. On the one hand, an authorised neumatation whose conjunct, nuance-poor shapes were scrupulously reproduced, sign by sign. On the other hand, ‘dictation’. Carolingian and Ottonian musicians sang the chants in order to convey their full melodic substance. Master musicians had to accompany the neumed exemplars, repeating phrase by phrase so that others could learn. Musicians journeying to Carolingian centres would have been instructed in this way, and in some instances the actual writing-down of the chant may have resulted from such melodic dictation rather than from visual replication. The dictation removed the scribe from the shapes on the page, and with that distancing from the palaeographic model there may have been a freedom to personalise the neumatic shapes.

6. A gestural mind-set. There may be still another factor behind the palaeographic variety of the neume-species. I return here to the two fundamental neume-types – Type 1/graphic and Type 2/gestural, which I have distinguished, not as styles or ductus but as processes or methods. Now the promulgators of the Type 2 noted archetype supplied a model that was gesturally conceived. My point is that the gestural method itself may have encouraged a bypassing of the model’s specific neume-shapes in favour of neumatations that were continuously fresh ‘re-gesturings’ of the well-remembered Gregorian melos. Each step in the writing process, each notational act, each ligature, each neume set down, would be the manifestation of a gestural impulse. Each Type 2 neumatation – from the Carolingian original through its network of descendants – would be executed, not merely as the copy of a written model but in an overriding sense as the active realisation of the method. The resulting neumatations would reflect personal and local choices as to what was notationally accurate and vivid. It may be from the vitality of

⁶⁶ W. Wattenbach, *Das Schriftwesen im Mittelalter* (4th edn, Graz, 1958), pp. 421ff, gives indications and contra-indications of dictation as a factor in copying texts. Professor Robert Snow, with whom I have been privileged to discuss this issue, believes dictation had a significant role in the process of neuming. It has a role in the familiar iconographic topos of the dove dictating the Sacramentary or the Antiphoner to Pope Gregory who then dictates to a scribe; this is dealt with by B. Stäblein, “‘Gregorius Praesul’”, der Prolog zum römischen Antiphonale’, *Musik und Verlag: Festschrift K. Vötterle*, ed. R. Baum and W. Rehm (Kassel, 1968), pp. 554f, with further observations by L. Treitler, ‘Homer and Gregory’, *The Musical Quarterly*, 60 (1974), pp. 337–44.

this gestural mind-set that some of the variety in tenth- and eleventh-century neumations flows.⁶⁷

I have offered fresh scenarios for three early stages of neume history: 1. ultimate origins; 2. the Frankish–Gregorian noted mass-book *c.* 800; and 3. the emergence of neume-species *c.* 900. Concerning ultimate origins, instead of a single development embracing all neumatic incunabula, I suggest two distinct developments: an earlier one of Type 1/graphic neumes whose aim was to describe pitch-positions; and a later one of Type 2/gestural neumes whose aim was to describe intervallic flow. Type 1/graphic is documented in the scattered vestiges of the Palaeofrank notation. Its principle would be to provide simple visual analogues of pitch-loci. Thus it was useful for establishing a written text and for editorial modifications. It may reflect the processes of church musicians engaged in a first conversion of chants from oral dictation to neumatic record. And this would dispose of all prior theories that have derived neume-origins from prosodic accents, Byzantine melodic notations, punctuation-signs, language-usage, cheironomy, ekphonic notations, and combinations of these. The Type 2/gestural neumes would represent a different method, incorporated in the lost Carolingian archetype of Gregorian chant: Charlemagne's archetype, the Frankish *editio princeps* from which the main line of surviving neumed propers descends. This gestural method aimed to produce charts that were vivid as memory aids and easily animated as hand-and-arm motions for guiding performance. It is only to the Type 2/gestural notation that one of the traditional neumatic etiologies would apply – the notion of cheironomy – but with no link to origins.

The dates and places of these developments remain obscure. Graphic neumes may reach back to Gregory the Great or farther, but they are likely to be a Frankish or cooperative Roman–Frankish innovation of the 760s or 770s, occasioned by Pepin's substitution of the Roman chant for the Gallican. The gestural neumes would

⁶⁷ The neumes transmitting the ninth–eleventh-century repertoires of Hispanic chant all seem to represent the same Type 2/gestural origins as those for the Gregorian–Roman chants. Despite their differences in appearance, the two major varieties of Spanish notation, those with vertical ductus, representing mainly the northern regions of the peninsula, and those with horizontal ductus, representing Toledo and the south, may descend from a common adoption of Carolingian notational practices that would have reached Galicia, Asturias or the Spanish March by the earlier ninth century; see my 'Old-Hispanic Chant in its European Context', *Congreso Internacional: España en la Música de Occidente, Salamanca, 1985*, ed. I. Fernández de la Cuesta (Madrid, 1987), I, pp. 1–16.

follow during the 770s to the 790s. The gestural recension could replace the graphic in a very short time.

As for my second and third stages – the transition from Charlemagne’s archetype of *c.* 800 through Froger’s ‘zone brumuseuse’ to the neume-species of *c.* 900 – the proposal is that the Type 2/ gestural neumes of *c.* 800 were not yet nuance-rich (laden with auxiliary indications of pitch, rhythm and other performance details), but instead were nuance-poor, with a minimum of details. Inasmuch as the melodic and rhythmic auxiliaries take different forms in different neume-species, and are to some extent in conflict as to system, the notational enrichments are likely to be additions to an archetype that was itself sparse in detail. The many nuance-poor copies of the tenth and eleventh centuries would thus be viewed as faithful replications of a nuance-poor original rather than degradations of one that was nuance-rich. The neumators who supplemented the skeletal early notations drew on professional memories where the substance of the chants remained crystallised for some generations after the neumed transmission began. A further reason for the diversity of the neume-species around 900 may be the practice of taking copies from dictation; and perhaps as well an inherent licence of the gestural method which encouraged scribes to personalise the mimetics of chant notation and shape their own gestural forms.

These proposals depend to a considerable extent on the distinction between two methods of neuming, graphic and gestural. That is something for which I cannot offer independent support. Yet if the conjectures about the nature and purpose of the two methods are not altogether wide of the mark, then the early developments of neumatic notation stand illumined in ways that have not previously seemed possible. In the gestural rationale that I suggest for the archetypal Carolingian–Gregorian neumatation of the late eighth century, there is an explanation of the diversity of ductus and procedure that mark the earliest noted collections *c.* 900. And in the graphic rationale that I suggest for the neumatic development prior to the gestural, there is the chance of a clarification still farther back. With the graphic neumes one may reach the murky border between oral and written transmissions, where the process can be discerned by which Latin church melodies were first converted to written record.

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