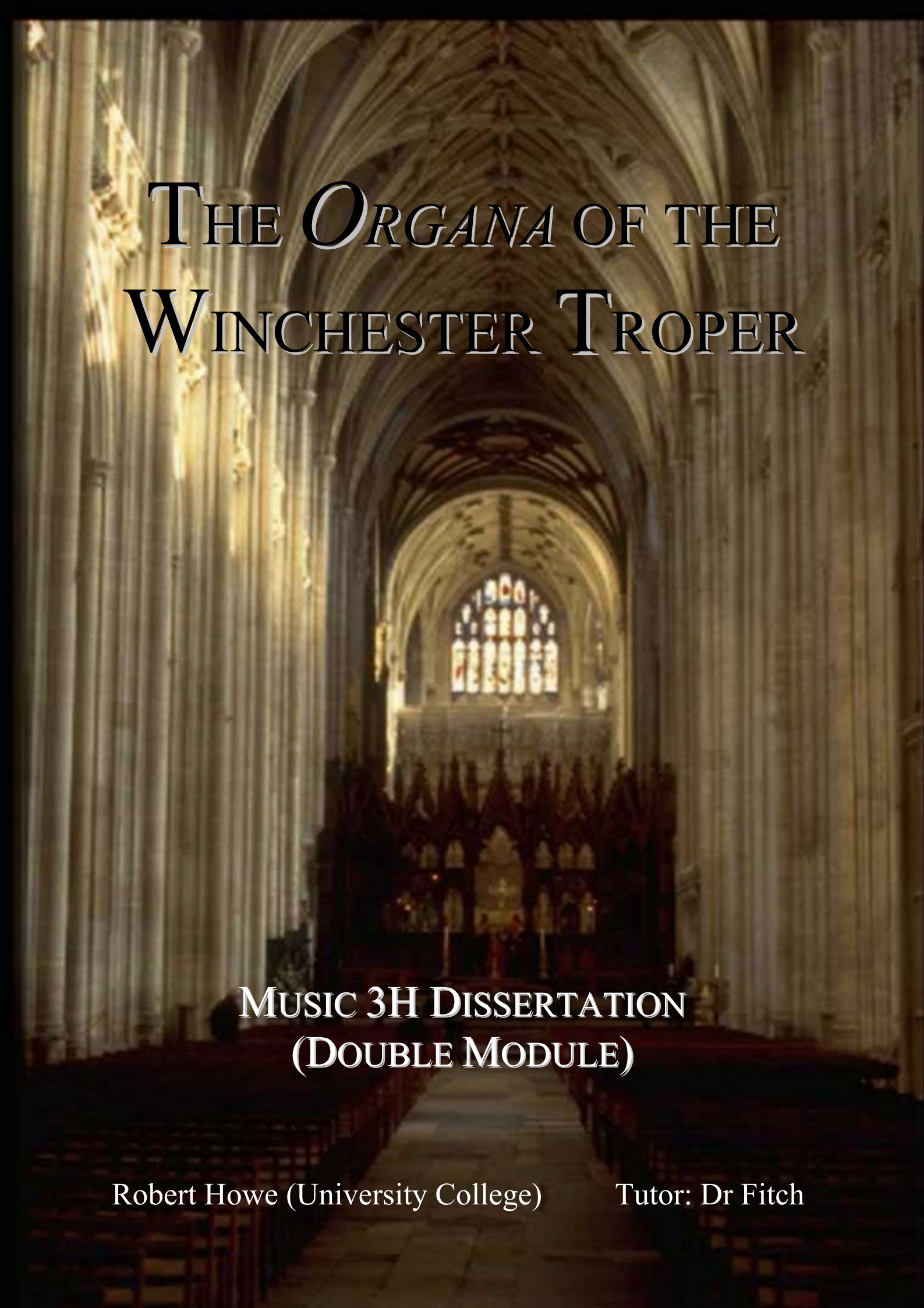

The *Organa* of the Winchester Troper

Music 3H Dissertation (Double Module)

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THE *ORGANA* OF THE WINCHESTER TROPER

Having read the University Regulations, I declare that this work is my own, and does not contain any unacknowledged material from other sources

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Chapter I: Introduction

Organum is polyphonic music. In its essential form is consists of the addition of a new voice (the *vox organalis*) to a preëxistent chant melody (the *vox principalis*). It is first heard of in the ninth century, and developed through the centuries until it was superseded by other forms around the end of the thirteenth century (although it persisted until much later in some areas of Europe), having reached its climax in the *organa* of the so-called School of Nôtre Dame of the twelfth and thirteenth centuries. The style of *organum* concerning us is markedly different from this later style, and dates from around 1000AD. All the added voices are contained in one manuscript, and, along with a sister manuscript of chant melodies presumably compatible with it, comes from Winchester Cathedral. The majority of the music in these manuscripts is not polyphonic, but consists of tropes for the liturgy. The nature of tropes will not be entered into here, as it is a convoluted and somewhat controversial area.[1] Put simply, the tropes are items inserted into liturgical chants. They may be musical or textual; they may be interpolations, extensions or polyphonic simultanaities. Thus the 174 *organa* are contained within one of these 'Tropers', and the pair together is known as the 'Winchester Troper'.

I.i Recent research into the Winchester Troper

The fame of this 'Winchester Troper' rests primarily on the fact that it is known to contain the oldest extant repertory of polyphonic music in the West. However, an air of academic mystery traditionally surrounds this repertory, arising from the notion that the notation was intended as nothing more than an *aide memoire*, and so cannot be transcribed into modern notation with any useful certainty whatsoever. This view

is, if not completely wrong, certainly misguided. The first modern work on the manuscripts was made by Frere in 1894, although he was primarily concerned with the texts and the phenomenology of tropes themselves. Most authors until Holschneider assumed the music was effectively unrecoverable. Some, such as Wooldridge perceived that something useful could be gleaned from attempted transcription, even if only to demonstrate principles of contrary motion.[2] Generally it was considered that, unless one had a fully heightened, or a staff-version of the *cantus firmus,* then one could not do anything useful. This was the optimistic view. The pessimistic view held that as the organal parts were also unheightened they too were irrecoverable as they definitely did not occur in later sources.

However, in 1968, Andreas Holschneider published *Die Organa von Winchester*, in which he transcribed some of the *organa* using first a variety of later sources for the *voces principales*, and second reconstructing the organal voice by examination of Guido's rules and the observation that the neums were in heightened groups for much of the time (within each group the neums are heightened, but not between groups).[3] On this basis he was able to perform useful stylistic analysis of the music.

Since then Wulf Arlt (1993), Mary Berry, Christopher Page, Alejandro Planchart (1977), Susan Rankin (1993) and Hendrik van der Werf, amongst many others, have all worked with the repertory for analysis or performance. The problem still remains of what to use for the *vox principalis*. At the time of these manuscripts chant melodies had regional 'dialects', and no completely consistent regulation of the melodies was ale to be effected until the advent of printing centuries later. The

[1] See for instance Richard L. Crocker's article 'The Troping Hypothesis' (Crocker: 1997b, 183-203)
[2] Wooldridge (1901), 76; also see Hughes (1961), 280 for the same example.
[3] Guido d'Arezzo was a music theorist writing around 1030AD. He was probably the most influential theorist of his time on both contemporary and subsequent musicians.

Winchester melodies have been shown to share close relationships with those from other English cathedrals - such as Worcester, to which they are practically identical. Furthermore, the notation used in the Winchester manuscripts shares similarities with Breton and Aquitanian styles. The 'rhythmic signs' used (see Chapter III) are also found in St Gall and Laon sources, with the former being closer to the usage at Winchester.[4] As the early unheightened sources cannot be read with certainty, it is necessary to use later heightened or staffed sources to confirm the melodies. The problem remains that some of the melodies at Winchester (as was common then) were completely insular, and so it seems cannot be recovered. This is particularly true of some of the sequence melodies, although some freer melismatic passages in various instances cannot be reconciled with later sources, often having more or less notes than these, or completely different shapes. In essence then we can never be certain of what the *exact* shape of the Winchester *vox principalis* actually was. Unsurprisingly then, there is some disagreement amongst the above authors over the finer points of transcription of the *organa*.

It was recognised that while these authors' work may be useful, the transcriptions presented by them must not be relied upon as an absolute basis for study. Thus the present author has had to select carefully a selection of pieces to present as transcriptions, and the practicalities of the transcription process have been examined deeply. More will be said about the transcriptions used in the present work at a later stage.

[4] See the next section for the close links between the English monastic communities those of the French Benedictines in particular.

I.ii Historical context of the manuscripts

The two manuscripts comprising the Winchester Troper are housed one at the Bodleian Library in Oxford (Bodley 775: hereafter referred to as Bo. following standard conventions for this repertory) and the other at the library of Corpus Christi College in Cambridge (manuscript 473 of this library: hereafter referred to as CC.). Planchart suggests a date of about 996-1006 AD for CC. and one of about 1050 for Bo. based upon 'an exemplar written between 978 and 986.'[5] This means that they stem from the revival of Anglo-Saxon monasticism of the tenth century.

Monasticism reached its height in Anglo-Saxon England during the eighth century. However, the Danish invasions of the ninth century destroyed most of these communities:

> Similarly, in the continent the Viking raids and the dissolution of the Carolingian empire made the second half of the ninth century a period of growing darkness and disorder. Political and monastic institutions suffered a decline…
>
> The turning point in the continent came in 910 with the founding of Cluny.[6]

The Cluniacs' influence spread as far as Fleury in 930, and gave rise to other Benedictine communities on the continent. In England, King Edmund appointed Dunstan as abbot of Glastonbury in about 940. A hagiographer reports that the abbey housed a Benedictine community under him. King Edmund was apparently not in favour of continental-styled reform here, but the increased communication between England and Europe made change inevitable.

Dunstan reformed Glastonbury under the enthusiastic King Edred (946-955), at which time Æthelwold (later bishop of Winchester) was attracted there. The latter seems to have been supportive of the new continental monasticism, and was only prevented from going to Fleury to learn from the Cluniac Benedictines there by his appointment to Abingdon in 954. When King Edred died, and was replaced by a less

[5] Planchart (1977), 11

zealous reformer, Dunstan was forced into exile in Ghent where he must have encountered other forms of reformed monasticism. Indeed, on his return to England in 957 and his appointments as Bishop of Worcester (957), London (c.958) and Canterbury (c.960), the reform of English monasteries continued apace.

In about 963, Dunstan's disciple Æthelwold was appointed bishop of Winchester. Planchart reminds us that Oswald also returned from Fleury to become bishop of Worcester in 961.[7] Thus principles of continental monasticism were adopted throughout much of England and monks from Fleury were often consulted on the matter of reform, although the precise nature of the liturgical reforms was basically still insular. Winchester cathedral was rededicated in 980, and Ælfheah, Æthelwold's successor (984-1005) installed an organ.[8]

It is from this time that the Troper dates. It is supposed by Planchart, amongst others, that the contents of CC. and Bo. represent the liturgical customs of Winchester under St Æthelwold.[9] The *Regularis concordia* of Winchester (rules of the new reformed community there), along with later sources, state that the cantor had jurisdiction over the choir and the copying of service books. Indeed, it is likely that Wulfstan, the cantor at Winchester, was the copyist for those solo sections of chant sections that were his prerogative to sing, including much of the trope material. The cantor had the choice over which tropes were to be used, and was expected to provide new chants as and when required by the liturgy.

CC., the manuscript principally concerning us here, contains *alleluias*, *kyries*, a tonary (psalm intonation formulae), a *sanctus*, a sequentiary (collection of sequences), proses, tropes and *organa*. The book is small (146 x 92 mm) but thick,

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[6] *Ibid*., 5-6
[7] *Ibid.*, 9
[8] Wulfstan, a disciple of Æthelwold, and cantor at the cathedral, chronicled many events at the cathedral throughput this period.

and was therefore presumably for the use of one soloist. This soloist, Wulfstan, is thought by Holschneider and Planchart to be the scribe and composer of the *organa* as well as a part of the other contents.[10] For the *organa*, the scribe for music and text is the same, and the marginal 'emendations' (see Chapter III) are also in his hand. It is possible that CC. is a revision of the contents of Bo., as is suggested by the contents. If this is the case then CC. was the book that Wulfstan, cantor of Winchester, sang from for the solo portions of the liturgy.[11] It seems that Bo. itself was copied from some earlier source dating from Æthelwold's time more or less unchanged as a sign of devotion to that saint.

The notation of the manuscripts will be examined in Chapter III when considering their transcription. The historical background for the musical style of the *organa* is examined next, in order to facilitate this transcription process.

[9] Planchart (1977), 11
[10] *Ibid*., 25
[11] It must not be taken fro granted that *organum* was the sole preserve of the solo singer though: 'While the Decani side of the choir sang a melodious strain with excellent voices, the Cantoris side laboured at organum parts in joyful songs of praise' was written in 991 concerning the dedication of Ramsey Abbey (from Hughes, ed: 1961, p. 279)

Chapter II: *Organum* theory at the time of the Winchester Troper

The earliest notated examples and discussion of *organum* are found in the two late ninth-century treatises, the *Musica Enchiriadis* (ME) and the *Scolica Enchiriadis* (SE). This is not to say that these works represent the start of a tradition. It has been observed before that 'polyphony is not treated as an innovation but as something already established: ME says it is properly called *diaphony* but "customarily" referred to as *organum*; SE does not see the need even to define the term.'[12] Because of this, it is as well to examine any earlier ideas that may relate to polyphonic singing.

II.i Ancient Greek harmonic practice and the early mediæval period

> Why do people not sing in correspondence at the fifth? Is it because the concordant note is not the same in this consonance, as it is in the octave? For there the low note has an analogous role in the low range to the high note in the high range: it is, as it were, simultaneously the same and different. But notes a fifth or a fourth apart do not stand in this relation, so that the sound of the correspondence does not clearly show itself, since it is not the same.
>
> *Problems* XIX.17.

> Why do people sing only the concord of the octave? Is it because it alone is constituted out of corresponding notes, and in corresponding notes, whichever of them one sings, the effect is the same? For the one of them contains in some way the sounds of both, so that when one of them is sung in this concord the concord is sung, and when people sing both, or when one is sung and the other played on the *aulos*, it is as if they both sing one note. Hence that note alone is sung, since things in correspondence have the sound of a single note.
>
> *Problems* XIX.18.[13]

These passages from the *Aristotelian Problems* (dating from the fourth century BC) are generally understood to be describing the singing of *antiph∫nos*, which appears to have been the simultaneous singing of, say, mens' and boys' voices.[14] Thus it seems that any *organum*-type singing of parallel fifths or fourths was not permitted.

[12] Erickson (1995) xxxiii
[13] Barker (1984) 194-5
[14] Although it could be argued that it was in fact the answering of one group at one pitch by another group at a different pitch.

However, the quotation can be viewed in a different way: It specifies that fifths and fourths cannot be used, but does not say that thirds, sixths or seconds cannot. As it makes it clear that only the octave provides proper 'correspondence' it seems probable that those other intervals are likewise proscribed. If the purpose is to state that only octaves are sung, why bother making the point that fourths and fifths in particular are not allowed, rather than just saying that all other intervals are prohibited? It seems more likely that this is a prescriptive piece of writing, and not descriptive. A plausible reason for the Greek author's approach can be that singing in parallel fourths or fifths *did* take place, but was generally found to disrupt unduly the relationships of notes in the *harmonia* (Greek modal scale).

Other Greek writings demonstrate that instrumental accompaniment of a song was not restricted to octave doubling, and it is possible that this used fifths and fourths more freely. However, the fact remains that if only the octave was used in vocal music, there would have been no need to specify this.

One other of the *problems* deals with these ideas more fully:

> Why is correspondence pleasanter than unison? Is it because correspondence is concordance at the octave? Correspondence arises when young children combine with men, whose pitches differ as do *nētē* and *hypatē*.[15] Now every concord is pleasanter than a simple sound (we have explained why already[16]), and the octave is the pleasantest of the concords, while the sound of a unison is simple. People magadise in the concord of the octave, because just as in metres the feet exhibit the ratio of equal to equal or two to one or some other, so the notes in a concord have a ratio of movement to one another. In the case of the other concords the endings of one note or the other are incomplete, finishing at the half-way point. For this reason they are not equal in power; and since they are unequal, a difference is present to our perception, just as there is in choruses when some people sing louder than others at the end. Now it happens that *hypatē* has the same ending of the periodic movements in its notes: for the second blow on the air made by *nētē* is *hypatē*. Since they finish at the same time, though their effect is not the same, the function they perform is one and common to them both, as in the case of people who play an accompaniment under a song. Though elsewhere these people do not play the same notes as the melody, still, if they finish on the same note, the pleasure they give with the ending is greater than the pain they give with the differences before the ending, because the common note, that arising from the octave, comes most pleasingly after differences. Magadising arises from opposed sounds; and that is why they magadise in the octave.
>
> *Problems* XIX.39.[17]

[15] These pitches circumscribe the interval of an octave.
[16] 'In… *Probs*.XIX.38. Concord adds a form of order to mere pitched sound' (Ibid., 183 n.73)
[17] Ibid., 200

Magadising seems to be purely singing in octaves, perhaps using a form of heterophony. Much of this passage repeats the content of the earlier two. However, the final section about coming together on a unison, having been using other concords has a great deal in common with the method of *organum* used in the Winchester Troper.

The treatise *De institutione musica*, by Bœthius (480-524AD) became the foundation of Western music theory beginning around the middle of the ninth century. It attempts a transmission of Greek musical theory to the Latin world. It is primarily a mathematical investigation into the proportions of different sounds to each other. There is one interesting reference to what appears to be simultaneous consonance, where Bœthius paraphrases Plato:

> Plato says that consonance is produced in the ear in the following manner. A higher sound, he says, is necessarily faster. Since it has thus sped ahead of the low sound, it enters into the ear swiftly, and, after encountering the innermost part of the ear, it turns around as though impelled with renewed motion; but now it moves more slowly and not as fast as when emitted by the original impulse, and, therefore, it is lower. When the lowered sound, now returning, first runs into the approaching low sound, it is similar, is blended with it, and, as Plato says, mixes in a consonance.[18]

He goes on to provide a differing interpretation of the mechanics of consonance by Nichomachus, but this is unimportant here. Most importantly is that the phenomenon being described appears to be simultaneous consonant sounds. Unfortunately, we cannot say from this what sort of consonances they were.

Thus these few references from Greek antiquity seem to demonstrate that simultaneous consonances were used centuries before the *Enchiriadis* treatises of the late ninth century. What is clear is that the fourth and fifth were regarded as inferior to the octave, although there is no reason to assume that these intervals were not used, as Wooldridge believes.[19] Wooldridge has his own view of what *magadising* might be.

[18] Bœthius (1989), 48
[19] Wooldridge (1901), Chapters 3-4 *passim*.

He suggests that 'this name seems to imply something more than a fortuitous mixture of the voices of men and children, resulting in the consonance of the octave, and suggests a conscious process with an æsthetic purpose; the *magadis* was a harp-like instrument of many strings [actually more often of two strings] which would admit the reduplication of a melody, and we may perhaps suppose that the effect of the natural unconscious mingling of voices in chorus being often imitated upon the magadis by the deliberate artifice of striking each note of the melody in octaves, vocal antiphony became at length in turn a conscious process taking its name from the instrumental imitation.'[20] This verbosity merely states what we have suggested already: that *magadising* is singing in octaves, perhaps ornamented. Wooldridge, though, supposes 'that the Greek practice of *magadising*, in which as we have seen lay the fundamental principle of Polyphony, was continued in the Latin Church, and that... [it] was recognised by the Italians, as by the Greeks, as a distinct musical effect, arising from a series of repetitions of the consonance of the octave.'[21]

Regarding possible later mediæval witnesses to polyphony, Dom Anselm Hughes believes that *organum* did not properly exist before the ninth century, stating that 'the interpretation of these passages is, and will perhaps remain, somewhat controversial.'[22] He points out that 'harmony' was interpreted as successive notes, not simultaneous notes. The word 'diaphony' later used as a synonym for *organum* was used to mean merely 'interval'. Unfortunately, he also seems to believe that the absence of written polyphony is a strong argument against its existence. The same might be said – for the sake of illustrating the fallacy of this view – of instrumental music, which is known to have definitely existed. However, the important point is made that any theory based on anything other than concrete evidence is merely

[20] Ibid., 4
[21] Ibid., 45

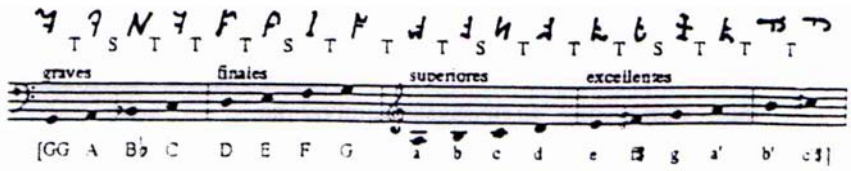
speculation and must not be confused with 'history'. Keeping this in perspective, it is still useful to question the matter of the origin of polyphony in the West. How *organum* appeared in later centuries (and whether it is related to Wooldridge's *magadising*) will therefore be a key aspect of this study later. In particular the two main views on how *organum* came about must be addressed: as being derived from parallel intervals or from heterophony.

II.ii The *Enchiriadis* treatises

The *Enchiriadis* treatises are usually cited as the earliest witnesses to *organum* in the West. Whether or not the examples given in these works actually represent a living practice of the period is a moot point though.

The first notable feature of these works is the scale system expounded within ME. This is termed a *Dasian* scale, after the symbols (*dasia*) used to notate it, and consists of 'of a series of disjunct tetrachords of which the *d-e-f-g* of the tenor octave is the basic tetrachord.'[23] The scale represented is shown in Ex. 1 below (the *dasian* signs are to be found above the pitches):

Ex. 1: The *Enchiriadis* scale composed of regular disjunct tetrachords.



It is unclear what significance this scale has for the practical music of the period. The obvious problems raised in octave singing using this scale are removed by the author by stating that when singing in octaves the scale is not adhered to in any case, and

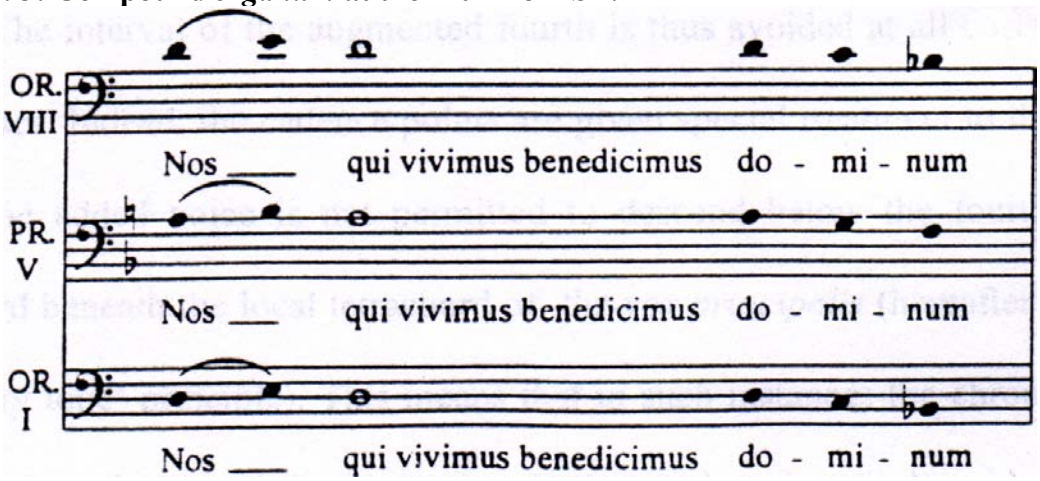
[22] Hughes (1961), 270
[23] Spiess (1959), 2

only consonant intervals are sounded. Thus a line added at the octave will always correspond to the original voice. All well and good. It is also evident that this strange scale is perfectly suited for *organum* at the fifth, as given in Ex. 2 from ME:

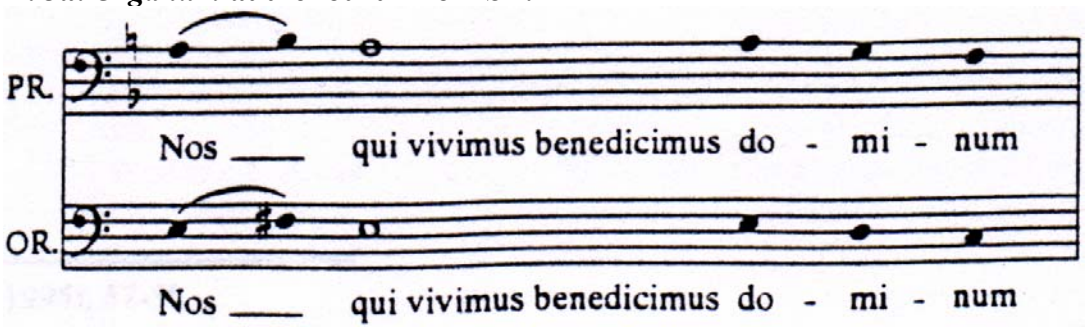
Ex. 2: *Organum* at the fifth from ME.

When making compound *organum* (that is, with either the *vox principalis* or *vox organalis* or both doubled at the octave) the rule about not obeying the scale for normal octave singing is brought into force again as in Ex. 3 from SE:

Ex. 3: Compound *organum* at the fifth from SE.



Ex. 3a: *Organum* at the fourth from SE.



It is also obvious that the Dasian scale cannot be applied to the original plainsong melody, or this would be subject to extensive chromatic alterations under it.

However, there is still more inconsistency in SE when *organum* at the fourth is described (Ex. 3a). Here it is necessary for the author to introduce an F sharp into the added voice to avoid a tritone with the *cantus firmus* (which uses B natural, not flat, as is clear from its use earlier in the same treatise to demonstrate *organum* at the fifth). This F sharp is not in the Dasian scale, and the author explains this merely by stating that 'it is not as simple as in the other [symphonies]…. Rather the organum is derived from some other natural principle that will be described later. Nevertheless, when it is performed with a moderate slowness, which is most appropriate to it, and with attentiveness to concord, the sweetness of the song will be most becoming.'[24] Thus is seems that the ear must be employed by whoever provides the added part to ensure that it always makes consonant intervals. It would also seem logical that a slow speed might aid the singers in finding their intervals correctly. Later the author explains that *organum* at the fourth often needs such alterations to render it agreeable.

The interval of the augmented fourth is thus avoided at all costs in this group of treatises. Indeed, the cadence points are given special treatment to this end in ME, where the added voice is not permitted to descend below the fourth tone of the tetrachord beneath the local tetrachord of the *vox principalis* (hereafter known as the

'boundary tone' principle). This means that in such instances the chromatic use of F sharp or low B natural is not required, they being the third tones of the lower tetrachords (Ex. 4):

Ex. 4: Use of the held boundary tone in *organum* from ME.

Using this rule to avoid the tritone in Ex.3 is not possible without introducing a fifth E-B on the second notes, destroying the integrity of *organum* at the fourth. The only other solution – to begin at the unison – and apply these cadence rules would provide little more than a unison rendering of the *vox principalis*. This is why the author prefers the F sharp version. However, examination of ME suggests that chromatic alterations are not as favourable as application of the boundary tone idea.[25]

Spiess believes that the B flat may not have occurred in plainsong at the time of these treatises, and this is why no mention is made of using E flat in consonance with this. He therefore suggests that the E flat is not prohibited if a melody *did* actually use the B flat at a later date.[26]

Susan Rankin reminds us that these descriptions of *organum* can be seen as validations of the tetrachord theory of the scale, rather than as actual examples of *real*

[24] Erikson (1995), 57-58
[25] It should be noted that the example of *organum* given by Wooldridge (1901, 51) from ME, using tritones, which leads to a discussion of what chromatic alteration to make, cannot be found in the translation of ME available to the present author. Presumably Wooldridge was working from a corrupt source.

organum. The point is to show that the tetrachord theory *does* work in practice, not to describe that practice in any substance.[27] She mentions that we must not regard *organum* as a prescriptive phenomenon, involving no creativity on the part of its executors. Rather, as we have seen above, there are artistic choices to be made within the rules as to how best to navigate the added voice.

II.iii Guido d'Arezzo and the *Micrologus*

The Most important theoretical document for use alongside the Winchester Troper is undoubtedly Guido's treatise *Micrologus*. This dates from around 1025, and is therefore only slightly later in date than the Winchester manuscripts themselves (there is a strong possibility that the Winchester manuscripts were still in use by 1025 in any case), and represents an almost identical style of *organum*. In it Guido puts forward a new system of interlocking - or conjunct - tetrachords (not disjunct, as in the *Enchiriadis* treatises). Thus Guido's scale is the 'modern' one as follows (Ex. 5):

Ex. 5: The scale (or 'gamut') according to Guido

Guido therefore adapts the boundary tone principle to proscribe movement beneath the *third* sound of the lower tetrachord, not the fourth (the notes being F and C). Despite the fact that Guido's new scale does not necessitate these held boundary tones, as there is no low B flat now in any case, he prefers the æsthetic effect of these types of cadence. Presumably they also help to reinforce the modal character of the

[26] Spiess (1959), 5
[27] Rankin (1993), 59-60

piece by staying near the final, and permitting an easy cadence upon the unison there. There may be another explanation for its persistent occurrence, and Wooldridge certainly suspects that this stylistic feature may have an entirely different and older reason than all these early authors imply.[28]

Most importantly Guido regulates certain features in his description of *organum*, as follows:

> [1] In it we do not admit the semitone or the diapente, but we do allow the tone, the ditone, the semiditone, and the diatessaron; and of these the semiditone holds the lowest rank and the diatessaron the chief one. With these four concords the diaphony accompanies the chant….
> [2] [The] convergence on the final [*occursus*] is preferably by a tone, less so by a ditone, and never by a semiditone. The occursus is scarcely made from a diatessaron, since a voice accompanying from below is more satisfactory in such a place; yet one should take care that this last does not happen at the final phrase-end of the piece.
> [3] Often, however, when the singer [of the original line] employs notes below the tritus [*the third sound of the lower tetrachord involved in the 'boundary tone' principle*], we keep the organal voice fixed on the tritus. Then the main singer should not end a phrase on these lower notes, but, while the notes are moving quickly to and fro, go back up to the waiting tritus and avoid trouble for himself and the other part by making a phrase ending on higher notes.
> [4] When the cadential convergence [*occursus*] is made by a whole tone, there is a prolongation of the final tone, so that it is accompanied partly from below and partly at the unison. In the case of a ditone this [prolongation] is still longer, so that often, when the accompanying voice is pitched, even though briefly, on the note in between [the ditone], the occursus of a whole tone is not lacking. This is the close for the deuterus, because it takes place there harmoniously. If the cantus is not expected to descend beyond, to the tritus, it will then be useful for the organal voice to sound the protus, to accompany with the following [notes], and to converge properly on the ending via a whole tone.
> [5] Furthermore, the two voices must not be separated by more than a diatessaron….
> [6] Lastly, there is a diatessaron beneath each note except b-natural, so that in phrases where this appears, G will sound in the organal voice. When this happens, if the original chant either descends to F or ends a phrase on G, then F in the added voice accompanies G and a at suitable places; but if the original chant does not end on G, then F in the chant is not accompanied by F in the organal voice.
> But when b-flat is used in the chant, F will be in the organal voice….[29]

These rules are easiest examined paragraph by paragraph:

1) Those interval names unfamiliar today are diapente= perfect fifth, ditone= major third, semiditone= minor third, diatessaron= perfect fourth. This rule tells us that the interval of a fifth is no longer regarded as suitable. Presumably a lower *vox organalis* at the fourth would remain serviceable if doubled at the upper octave to create perfect fifths above the *vox principalis* though. It also releases us

[28] Wooldridge (1901), 65

from the constant emphasis on parallel intervals by being able to use a variety of different intervals. However, the parallel fourths remain the most important foundation of the technique.

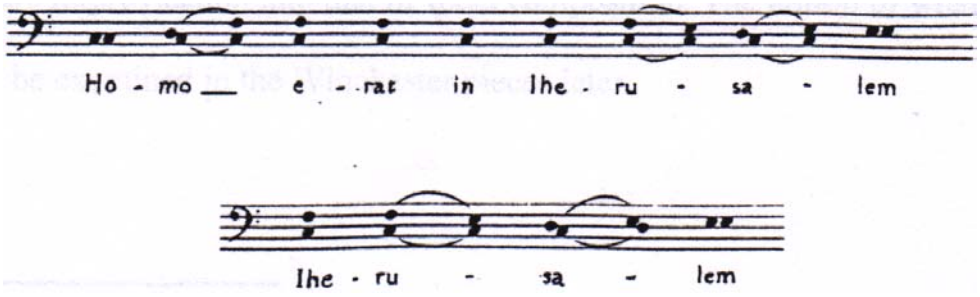
2) The idea of the held boundary tone on the third note of the lower tetrachord has already been discussed above.

3) The *occursus* is an important feature of Guido's *organum* and occurs in the Winchester *organa* a great deal. The *occursus* itself may best be demonstrated rather than described (Ex.6):

Ex. 6: *Occursus* according to Guido.

We see here the accompanying voice proceeding to the unison from beneath. The *occursus* seems to be the phenomenon of closing via a whole tone interval (a sort of cadential appogiatura). We are told in rule 5 that *occursus* from the third beneath is also permitted, but that this is usually then filled-in with a note to provide the whole-tone in any case (Ex. 7). A cadence from a minor third is not permitted.

Ex. 7: Cadential *occursus* from the third showing first simple, then with the third 'filled-in', according to Guido.



[29] Babb (1978), 78-79

4) This description of 'suspending' the organal voice above the chant seems to be based purely on æsthetic grounds. There is no clear reason why the organal voice should not descend with the chant voice. The phrasing of this rule has led some to suggest that it indicates a nuance of performance practice. 'From Guido's comment upon it, joined to some previous remarks, we gather that the melody in such cases was to be sung very quickly, and that no pause suggestive of a melodic close was to be made until the final *occursus*.'[30] This interpretation may not be accurate, although it is true that the passages given by Guido in this style represent a more melismatic style than others, and may therefore have been performed in a more florid fashion. Certainly it seems possible that no pause was made until the 'proper' closing cadence. There is another possibility inherent in Guido's wording of the rule. To suggest that the main singer 'should not end a phrase on these lower notes' suggests that the singer actually has some say in where he ends the phrase. If it were an ecclesiastical melody, this would be odd. However, we know Guido is interested in the composition of melodies, as earlier in the treatise he gives instruction on how to compose new melodies. It could be possible that Guido is talking about the composition of new *written* pieces that consist of *both vox principalis* and *vox organalis* conceived as a whole (as we find in the later Saint Martial repertory). Indeed, some trope texts of the ninth and tenth centuries imply organal singing, and it is not clear how they could have been written with anything other than polyphonic treatment in mind. If this is the case, then it lifts the technique of *organum* out of the realm of pure improvisation into that of fixed composition. The notion of what 'fixed' means will be examined in the Winchester pieces later.

[30] Ibid., 69

In passing, it should be noted that this kind of 'suspended' *organum* does not seem to occur in the Winchester repertoire.

5) This has been discussed under 3, but we are now told that the penultimate interval is prolonged. We are also told that for a cadence on E, the *occursus* of the third is used, the accompanying voice moving C-D-E under the E. It is also suggested that for these cadences on E, the added voice hold a D to accompany the chant until the final *occursus* of a tone as another possibility.

6) The use of the fifth is proscribed. As Guido gives an example of *organum* at the fifth earlier, and dismisses it as 'hard [sounding]' it must be assumed that it was a common form of *organum* at the time. Thus he is actually suggesting the avoidance of the interval *because* some people used it. This will account for its occasional appearance in the Winchester *organa* discussed later.

7) This rule is fairly self-explanatory and governs the movement of the added voice for movement when b-natural appears in the chant. It is significant that Guido does mention the b-flat as present in some chant melodies as an incidental point.

There is little point in examining Guido's actual examples of *organum*, as they do no more than illustrate these rules, and such studies of his work are easily found in many of the reference works cited under the bibliography.[31] One item of interest is his willingness to provide alternative 'solutions' to some of the chants. This allows us to speculate that the prescriptions are not meant to fix a performance style absolutely,

[31] For example Wooldridge (1901), 66-72; Hughes (1961), 279-280; Reese (1941), 259-260; Rankin (1993) *passim*.

and perhaps this also means that different interpretations of neums within a completely different notational system are also valid.[32]

Some authors have taken to making a distinction between 'free' and 'parallel' *organum*. The 'early' style is parallel and is found in the *Enchiriadis* treatises, and the later style demonstrated by Guido introduces oblique and contrary motion, to be developed later in the treatise of John Afflighemensis into the 'new' *organum*. This seems misguided, as the only examples of 'parallel' *organum* given in the *Enchiriadis* treatises and by Guido are superseded by those, which contain oblique and contrary movement as well as a variety of intervals (the *Enchiriadis* treatises are actually freer than Guido in the variety of intervals found). The proportion of parallel, and free examples in ME, SE and *Micrologus* are as follows (the examples used to illustrate the consonances themselves are not included, as they do not represent actual 'pieces' of *organum*; likewise the examples merely representing octave doublings of a previous example are omitted):

Treatise	**Strict parallel examples (plus intervals used)**	**Free examples (plus different intervals used)**
ME	1 (perfect fifth)	5 (unison, major second, major third & perfect fourth)
SE	2 (perfect fourth & fifth)	1 (unison, minor third, major third, perfect fourth – see footnote)[33]
Guido	2 (perfect fourth & perfect fifth – discarded by Guido)	11 (unison, major second, minor third, major third, perfect fourth)

Thus the *Enchiriadis* treatises do not represent 'parallel organum', neither are they significantly more prescriptive than Guido for intervallic content. The notion,

[32] Guido uses a 'stave' system, with the note names written beside lines, and the text placed upon these lines depending upon what pitch is sung to each syllable. The Winchester Troper uses partially heightened neums which indicate no absolute pitch.

therefore, that Guido is somehow 'reforming' parallel *organum* can only be wrong. Indeed there is no reason to suppose that strict parallel *organum* ever existed in practice at all.

[33] The examples given by SE with octave doublings finish with one with the *vox organalis* doubled at the upper octave **but absent** from the 'normal' position (i.e. it is a fifth *above* the *vox organalis* only). This leads to intervals of a perfect fifth, major sixth, minor sixth and octave!

Chapter III: The Music of the Winchester *Organa*

There will not be space here to carry out detailed stylistic analyses of the Winchester *organal* style, although such discussions can be found by Rankin, Holschneider and, to a lesser extent, Arlt in the references cited under the bibliography. General principles as given by Guido are shown to apply to the Winchester style, and the many instances where Guido's rules are broken have been examined elsewhere.[34] Rankin has also performed an enlightening analysis of how the *organum* affects the perception of the structure of the plainchant melody, taking into account rhetorical features within the text set.

The Winchester Troper also contains amended versions of many phrases of the organal parts written in the margins next to the main body of notation. These may subtle recompositions, or merely notational clarifications, but until a comprehensive study has been made, to reveal whether these emendations are to be regarded as compositional 'improvements', a portion of our understanding of the nature of the 'fixed composition' at Winchester will remain obscured. This too has had to be passed over in the current study.

Rather the opportunity will be used to examine the notation of the sources with a view to more practical, performance-orientated ends.

III.i Transcription of the sources

Prior to any examination of the Winchester *organa* must lie the question of what the material is that is being analysed. It has already been mentioned that there has long been dispute over whether the music can be deciphered at all. Thus it is both

[34] Most significantly by Rankin (1993). It would be perhaps unnecessary to slavishly repeat all her work here in any case.

illuminating and necessary to set forth the principles involved in the transcription process as used by the present author. It is very important to state that there is not room here for an exposition of what the melodic direction implied in the Winchester neums actually translates as. It must be assumed that the meaning of unheightened neums is already understood (e.g. that a *pes* [] signifies  , or that a *trigon* [] signifies  , or what features show a liquescent neum, or in what order to read the notes in a compound neum, etc.).

Whether or not the rôle of the musicologist is to examine and comment upon music for purely didactic purposes, or to make a re-presentation of the music possible in performance is a moot point. The present author believes that performance of music is an important adjunct to its comprehension, if not a *sine qua non*. The Winchester manuscripts were meant to be able to be read from in the first place. There would have been little point in a system of notation that would take hours to decipher, so fairly simple underlying principles must be present. Five pieces have been transcribed, each selected for different reasons:

1) *Alleluia .V/ Dies sanctificatus.*
2) Kyrie – *Christe redmptor.*
3) Sequence – *Beatus vir.*
4) Tract – *Commovisti.*
5) Responsory – *Gloriosus vir.*

Each piece will be examined separately as far as is possible for the sake of clarity. It should be noted that the half-bars used to mark-off phrases in the transcriptions are of the author's devising, and are based on the structure of the *vox organalis*, as will become clear later.

To approach this music requires an understanding of the theory of the period, as transmitted to us through Guido, as has been examined above. While it would be ridiculous to assume that all of the 'rules' for *organum* as given by Guido are truly representative of all *organum* then being sung, his is the only theoretical document of relevance available to us. This information, or something very like it, must have been known by the advanced musician expected to sing these organal parts. This is one assumption we make.

The other assumption we must make about this singer is that he knew the melody of the *vox principalis*. This is not a sweeping assumption as most clerics and monks involved with the daily service were expected to memorise much of the chant. Given this knowledge in the order utilised by the singer we first address the *vox principalis*:

1) *Alleluia. V/ Dies sanctificatus.*

If a *vox principalis* must be found that is to fit we must first look at the melodies used at Winchester itself. Fortunately, this piece occurs in Bo. on folio 77^{v}. While this is an unheightened source it enables us to confirm later readings of the melody. Holschneider takes the melody from the Rawlinson Gradual (Oxford Bodleian Library C. 892)[35] on folio 9^{v}, which dates from the start of the thirteenth century.[36] Where Holschneider takes this melody literally, I prefer to 'rationalise' it in accordance with the Winchester neums in Bo. Although, having consulted the latter in facsimile it can be confirmed that this particular *vox principalis* may be identical with the Winchester melody, and no alteration may be required.[37] It is assumed that the

[35] Published in *Early Bodleian Music 3*, edited by E. W. B. Nicholson.
[36] Holschneider (1968), 160-61
[37] Facsimile given in Wooldridge, ed. (1897), plate 2

melody is therefore completely compatible with the organal part (as there is little else can be assumed!).

2) Kyrie – *Christe redemptor*

The *vox principalis* for this Christmas piece is found in Bo. on folio 62[r]. Planchart gives a version derived from MS BN lat. 1119 fol. 84[r].[38] The closing neum is suggested by Planchart to be wrong. Indeed, all that has happened is that a scribe has given  instead of (i.e. the 'foot' of the *pes* is missing). It seems acceptable to replace this last neum with that from CC. as Planchart does. What is frustrating is that we are not told why, if the melody is found in CC. (from where the amendment comes), the chant is taken from Bo. and not CC. in its entirety. No facsimile has been found that contains the appropriate page of CC. whence comes the amendment though.

3) Sequence – *Beatus vir*

Again Holschneider provides a melody for us.[39] There is a version in Bo. on folio 122[r], which implies a slight alteration to the melody as given by Holschneider.[40] Where Bo. has  , the staffed melody has the following:

[38] Planchart (1977), 310-13
[39] From *Anglo French Sequelae* edited by H. M. Bannister and published by the Plainsong and Medieval Music Society (London, 1934).
[40] Facsimile given in Holschneider (1968), plate 5, and by Frere (1894), plate 1.

This occurs several times. Frere gives a version of the melody also. While he emends these points in conformity with Bo., he gives no indication of where his melody came from. I have no hesitation in using the melody adapted according to Frere.[41]

4) Tract – *Commovisti*

The *vox principalis* used in this transcription is the least certain, and that which has had most 'amendments'. The only version of the melody available to the present author was that contained within the *Liber Usualis*. However, this chant is one that has both its *vox principalis* and its *vox organalis* in CC. (folios 146^{r} and 195^{v} respectively).[42] The version given in the *Liber Usualis* was adapted to fit the neums given here. This was not as uncertain as it may appear as the notation used for the melody incorporates the names of certain notes written beside the appropriate notes within the neums. The system of note names works from the same principle as that for the organ keyboard of the period. The lowest note (A) was called 'F', and the notes thereafter follow the pattern (upper or lower case letters apparently mean nothing in this system):

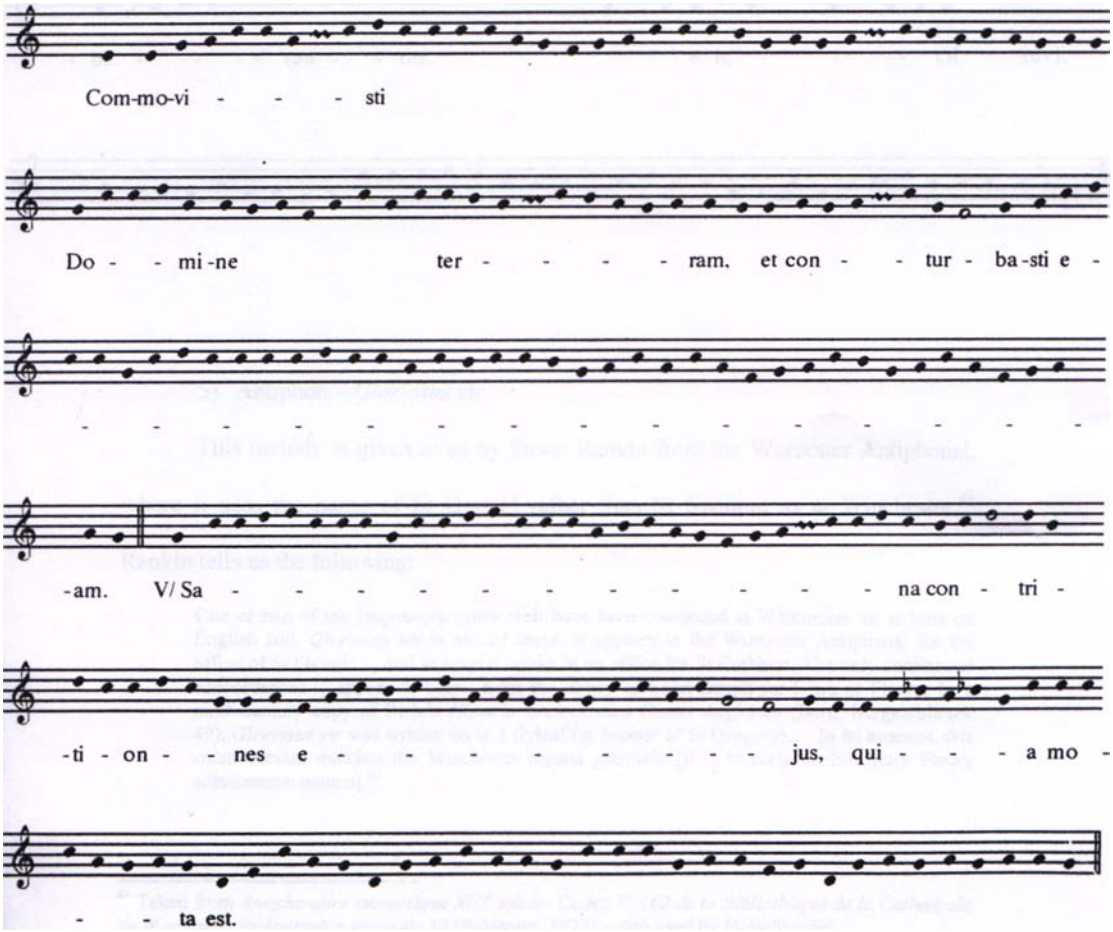
F G A B C D E F G etc.

This system was derived from Bœthius, and Frere tells us that it 'is not unknown elsewhere.'[43] The lowest note was called *proslambanomenos* by Bœthius, and was given the symbol ┣ which apparently was confused with the similar-looking 'F'. Apart from the initial letter being confused, nothing of Bœthius' system remains in this use, the net result of which is simply that the note names are read a third up for transcription purposes. For ease of comparison with the adapted melody to be found in the transcription, the *Liber Usualis* melody is given in Ex. 8. The differences are

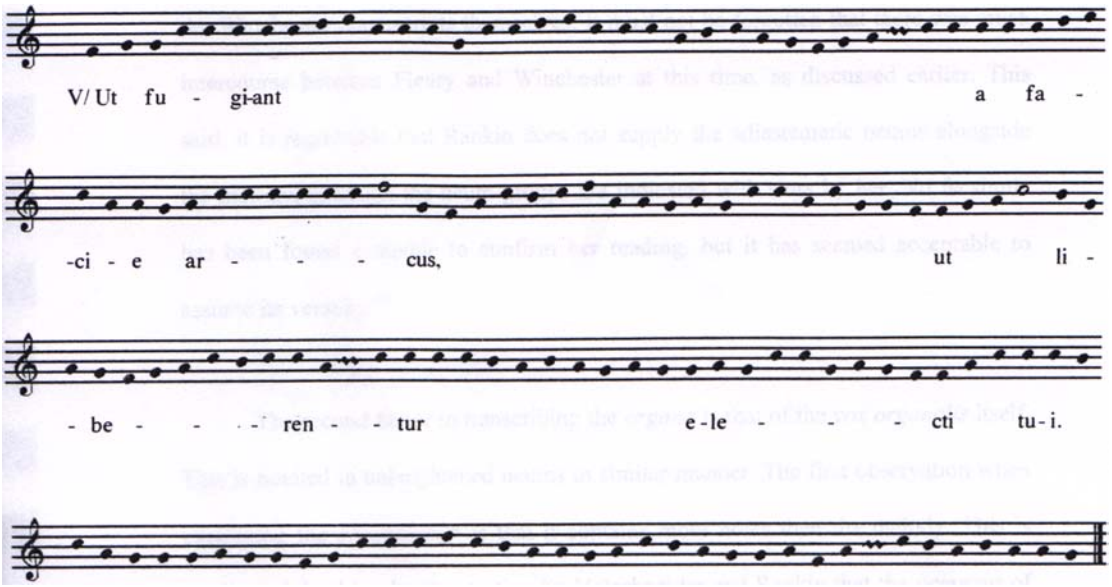
[41] Frere (1894), plate 1a.
[42] Facsimiles in Frere (1894), both on plate 25

actually minimal, with a couple of repeated notes in the *Liber*, and a few uncertainly-pitched liquescent neums that become full notes in the *Liber*. The phrase marked 'X' in the transcription is strange though. Here we find the lowest note of the *trigon* being specifically named as 'b' (i.e. a 'd'), although this is both uncomfortable to sing, and is at dramatic variance with the *Liber*. It seems that this must be an error in the manuscript and should read 'e' (i.e. a 'g'). This corrected reading also makes more sense with the organal part, as will be seen later.

Ex.8: Tract *Commovisti* as given in the Liber Usualis



[43] Frere (1894), xli



5) Antiphon – *Gloriosus vir*

This melody is given to us by Susan Rankin from the Worcester Antiphonal, where it uses the name of St Oswald rather than St Swithun as at Winchester.[44] Rankin tells us the following:

> One or two of the responsories may well have been composed at Winchester, or at least on English soil. *Gloriosus vir* is one of these. It appears in the Worcester Antiphonal for the office of St Oswald… and in several books in an office for St Cuthbert. The only continental concordances… appear in books from the abbey of Saint-Benoît-sur-Loire at Fleury. In a ninth-century copy of Bede's *Historia Ecclesiastica Gentis Anglorum* (Bern, Burgebibliotek 49), *Gloriosus vir* was written on to a flyleaf (in honour of St Gregory)…. In its nuances, this chant version matches the Winchester organa precisely [it is in early tenth-century Fleury adiastematic neums].[45]

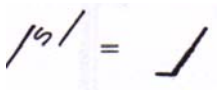
Thus it seems that all sources agree on the melody, and this is thus presented with some certainty as the 'correct' version, despite not finding the chant melody in the Winchester manuscripts themselves. It must not be forgotten that there was much intercourse between Fleury and Winchester at this time, as discussed earlier. This said, it is regrettable that Rankin does not supply the adiastematic neums alongside the melody, although the neum-groups are indicated with slurs by her. No facsimile

[44] Taken from *Antiphonaire monastique XIII^e siècle: Codex F. 160 de la Bibliothèque de la Cathédrale de Worcester*, Paléographie musicale 12 (Solesmes, 1922) – also used by Holschneider.
[45] Rankin (1993), 80-1

has been found available to confirm her reading, but it has seemed acceptable to assume its veracity.[46]

The second factor in transcribing the *organa* is that of the *vox organalis* itself. This is notated in unheightened neums in similar manner. The first observation when examining the *organal* part is that it contains more notes than the melody. This is partly explained by the observation by Holschneider and Rankin that the *occursus* of Guido is used freely.[47] Guido states that the *occursus* is prolonged where possible. In the Winchester manuscripts the *occursus* is often notated in the *organal* part by a *punctum-oriscus-virga* grouping (), which usually corresponds to two notes in the upper voice, the *oriscus* (which is used as a repeat of the previous pitch) presumably being sung simultaneously with the final note of the melody as described by Guido. Other occasions where one voice contains more notes than the other may be explained by the fact that one part may use a liquescent neum to a 'normal' neum in the other. It seems that a liquescent neum must be equal in duration to a 'normal' neum in these manuscripts. This is important, and does not seem to have been recognised by other authors.[48] Occasionally it seems that an *oriscus* () may carry less duration than a 'normal' note in the same way. This can be seen in the sequence *Beatus vir*, with the simultaneous neums shown in Ex. 9 below:

[46] *Ibid.*, 79
[47] Both *passim*.
[48] For example, Planchart (1977), p. 312, in transcribing the *Kyrie Christe Redemptor*, assumes a scribal error at '*ut illi digneris eleison*', and omits two of the notes in the *vox organalis*. This is because he reads two two-note liquescent neums as being equal in duration to two full notes in the melody part each. This causes two *organal* notes to be superfluous. There is in fact no scribal error here, and Planchart's apparently invented 'incorrect' version does not exist in the manuscript for him to amend!

 i.e. 

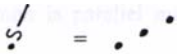
It is also fairly common to find an *oriscus* used simultaneously with a liquescent note (eg.), which also implies its brevity. However, usually when the *oriscus* appears in one voice it is accompanied by another *oriscus* in the other voice, unless at an *occursus*.

Other occasions where one voice contains too many notes cannot be so easily explained, and the attempt has been made in the non-mensural transcriptions merely to try and 'squeeze in' these extra notes as best as possible. How these were perhaps to be sung will be discussed later.

Taking Guido's examples of *organum* as generally representative of the style, it can be seen that the organal voice generally moves a fourth below the principal voice. Guido disapproves of the fifth below. The vast majority of phrases close on a unison, although Guido permits a close on a fourth below. However, how the end of one phrase and the start of another is to be discerned is then unclear if they both sound a perfect fourth. Planchart's *occursus* at the fourth below (i.e. moving from a note a fifth below – the *oriscus* note in the *occursus* neum described above – to a fourth below – the *virga* note – shown in Ex. 10) seems highly dubious.[49]

Ex. 10: A cadential *occursus* as suggested by Planchart.

[49] See transcriptions by Planchart (1977), eg. pp. 310-313

A few details of the meaning of the notation are also required to decipher it. It has been stated that the *oriscus* is used for a repeated note. This has been assumed for all cases save those explicitly notated otherwise. The only example found is when the *oriscus* forms part of a *scandicus* neum (i.e. ), when it must be interpreted as part of the rising figure. Care must be taken not confuse a *scandicus* of this type with  though.

The neums in the manuscripts are partially heightened. This means that groups of a few neums or less are internally heightened. These groups are usually spatially separate from each other, and between groups it is common to find the use of so-called 'Romanian letters' to indicate the relative pitch of the groups. Romanian letters will be discussed more fully later. Some letters refer to pitch and others to nuances of

performance. It is the former that concern us here. The letters and their meaning as found in St Gall are given below:[50]

> *a* = *altius*: higher in pitch
>
> *e* or *eq* = *equaliter*: at the same pitch
>
> *i*, *io* or *iu* = *inferius*, *iosum* or *iusum*: lower in pitch
>
> *iv* = *inferius valde*: much lower
>
> *l* = *levate*: rise to a higher pitch
>
> *s* = *sursum*: ascend to a higher pitch
>
> *m* or *md* = *mediocriter*: moderately, can qualify either as a melodic or a rhythmic indication, or even appear on its own, when its meaning has to be deduced from the context.

These letters usually indicate intervals larger than a tone. It is impossible to distinguish between *iv* and *iu* in this manuscript, and the letter *a* is not found here. The implications of these letters will be examined in context of examples to follow.

The manuscripts generally follow the convention of notating the lowest notes in a group with *punctum* neums, and use the *virga* for higher pitches. Where this is not adhered to, the internal heightening makes the meaning clear in any case.

The principal of construction used for Guido's *organa* has been shown by Holschneider and Rankin to apply equally to the Winchester *organa*. 'The typical pattern followed by each phrase of the organum is parallel movement, held tone, unison.'[51] With this principle and Guido's rules in mind, it is possible to decipher the neums fairly easily. Each piece will again be examined in turn for the details of this transcription process:

1) *Alleluia. V/ Dies sanctificatus.*

The *vox organalis* is on folios 163^{r} and 163^{v} of CC.[52] The opening phrase is ambiguous. It is unclear whether it begins on a unison or a fourth. The first three notes

[50] Excerpted from Hiley (1993), 374-5
[51] Rankin (1993), 80-1
[52] Folio 163^{r} given in Frere (1897), plate 24. Folio 163^{v} not available in facsimile although the neums are given by Holschneider (1968), 161, and have been assumed correct.

are affected by this choice, the following ones being unequivocally at the fourth, in order to allow the unison at the cadence (if it were not at the unison here but at the fourth, then the penultimate interval would have to be a fifth, a cadence which Guido prohibits). The second rounded *pes* () in the organal part must be a fourth below the melody to bring the following pitches into the correct area for a unison phrase-ending. The fact that the internal heightening shows no indication that the second rounded *pes* is higher than the first suggests the opening is at the unison.

The Romanian letter *l* at the start of the second phrase shows that the pitch rises by probably more than a tone. The phrase ends with an *occursus,* which means a unison. As there is no change of pitch given by the heightening of the *virgae* before this, the only possible note with which to begin the phrase is an 'F'.

The next phrase presents a common problem: two different notes above one repeated pitch. Obviously one interval will be more consonant than the other. The present author offers the observation that in later *organa* the second interval of such neums is the more consonant.[53] This cannot be confirmed by Guido, who did not use neums to notate his examples, although the *appogiatura*-like nature of his *occursus* may imply the same. The *oriscus* following seems to correspond temporally to the 'F' in the melody, even though it has been stated earlier that the *oriscus* may be shorter than normal. For the sake of the non-mensural transcription though it makes more sense if the notes are aligned as best as possible to a principle of 'best fit' as suggested above. The *punctum-oriscus-virga* group here therefore does not imply an *occursus* phrase-ending as this would mean both an *occursus* of a semitone, which is not allowed, and also that there were too few notes in the following organal part,

[53] In the Chartres *organa* of the next couple of decades, the *organa* of St Martial and the Calixtine repertory from c.1100, as well as that from Nôtre Dame (c.1150-1250).

which would be highly unusual, and throw out the alignment of the subsequent neums.

The use of the letter *e* can be seen next to show the holding-tone for the end of the phrase.

The phrase '*illuxit*' demonstrates how a liquescent two-note neum takes the value of a single note.

The phrase concluding the word '*nobis*' illustrates an important point regarding boundary tones. We recall that the use of the pitch beneath C is not allowed unless the melody too descends into the lowest tetrachord. Thus the opening neum of this phrase is D-C-D, not C-A-C (i.e. in parallel fourths).[54] Because the next phrase descends to the low A, it is possible for the *vox organalis* to use the lower notes at the opening of this phrase. The final phrase for this word '*venite*' displays another example of having apparently too many notes in the *vox organalis*.

I have suggested that there is one too many *virgae* in the group above '*quia hodie*', and scribal error seems the best explanation.

The later phrase '*lux mag(na)*' shows in its first part an ambiguous use of the letter *l*. It is placed beside the angular *pes* (), where it would normally be interpreted as meaning that there was a distance of more than a tone between the two notes within that *pes*. However, that would make far less sense than the parallel fourths given in the transcription, and the *l* can only mean that the *starting* note of the *pes* is higher than the previous *punctum*.

This piece presents no further great difficulties in transcription. Whenever the opening interval of a phrase is uncertain (i.e. a fourth or a unison – even when the latter is ornamented as at the start of the verse mentioned above) it can be easily

worked out by working back from an *occursus* phrase-ending, which must be at the unison.

Stylistically, it is pertinent to note that a single word is broken over several phrases. This would not be odd for long phrases, but at '*sanctificatus*' the word is broken into two short phrases (assuming the *occursus* does in fact signify a close of a phrase). Such divisions of words into small units are still common in Coptic chant today.

2) Kyrie – *Christe redemptor*

The *vox organalis* is found on folio 135[r] of CC.[55] The opening interval must be a fourth to allow the unison convergence at the *occursus* phrase-ending. The sorts of reasoning behind intervals at phrase-openings have been sufficiently illustrated now, and will not be examined in further examples, unless pertinent, as below.

The first of the two '*Kyrieleison*' phrases is specified to begin at the unison by the use of the letter *e*, signifying the same pitch as the end of the previous phrase.

A second example of a two-note liquescent neum occupying the space of one note can be seen at the start of the second phrase of this *kyrie*. At '*qui cuncta gubernans*' it can be seen that the liquescent note of a neum seems to be equal in duration to the *oriscus* in the melody. This is more confirmation that the *oriscus* is a short note.

At the close of the first phrase of the '*Kyrieleison*' after '*ut illi digneris eleison*' we find an alternative way to notate *occursus* rather than *puntum-oriscus-virga*: a special form of rising liquescent is used () marked with *l* or *s* (which looks

[54] This is an example of how the boundary tone idea is purely æsthetic, as no dissonant intervals would result from parallel fourths. It does indeed seem to be connected with preserving the modal integrity of each phrase, and thus the range of notes permitted around the final.
[55] Facsimile in Wooldridge, ed. (1897), plate 2

like an ‘f’) to show that it ascends from the fourth or third below to the unison. This is seen later and in other pieces. It is interesting to note that this is used for an ascent from the fourth below, which Guido suggests is unnecessary at anything but the close of an entire piece, as maintaining a phrase end at the interval of a fourth is satisfactory for him.

The piece, because of its use of frequent b-natural, makes use of the consonance of the third more than in some others. This is an application of Guido’s rule about accompanying the b-flat given earlier. However, there are more thirds apparent than simple application of the rule might have suggested, implying their presence on a purely æsthetic level. Indeed, there are a couple of instances of chains of parallel thirds. The perfect fifth occurs more frequently in this piece, also suggesting it is more ‘advanced’ than others (or maybe more debased?).

3) Sequence – *Beatus vir*

The *vox organalis* to this piece is found on folio 153^{r} of CC.[56] The main noteworthy feature involved in the transcription was discussed above (see Ex. 9). However, there is also a good illustration of the ambiguity of the Romanian letters at the start of the second phrase after the fourth double repeat-bar, where both letters *e* and *l* are used against a *virga*. They both mean mutually exclusive things (‘equal pitch’ and ‘raise the pitch’ respectively), and the only sensible interpretation is that it means ‘raise the pitch to become equal *with the other voice*’. The notion that *e* might be interpreted in this way must be borne in mind when transcribing.

4) Tract – *Commovisti*

[56] Facsimile in Frere (1894), plate 19

The facsimile of the organal part was lacking in clarity at the start, and the fifth to the eighth pitches could not be read. The reconstruction of the whole first phrase offered must therefore be considered conjectural.

At '*Ut fugiant a facie arcus*' I have suggested there is one too many *virgae* in the organal part, as it does not match the neumatic shape of the principal part. Again scribal error is proposed.

Other instances of the same points raised in earlier pieces are also found. The most important decision made was to include a b-flat in the key signature for the whole piece. This was suggested first by the appearance of b-flat a couple of times in the version found in the *Liber usualis*. The *organum* seems to imply so many instances of 'b' accompanied by 'f' (such as at the close of the third phrase of the piece), that it seemed that all the 'b's might be flattened to preserve the modal integrity, which is so important in organal writing, as has been seen from the boundary tone idea.

The penultimate phrase of the piece shows an *occursus* onto an F which seems to demand the interval of the semitone, which contravenes Guido's rules in a manner untypical of the style (if the accompanying note were 'D' then an interval of a fifth would be placed in an untypical position, and we should also expect the letter *l* to inform us that it is more than a single step to the cadence thereafter).[57]

5) Antiphon – *Gloriosus vir*

The *vox organalis* was only to be found copied by Rankin, is thus unconfirmed by facsimile, and so the precise heightening could not be checked.[58] The

[57] This phrase also presents a difficulty when attempting a mensural interpretation, as the *tractulus* would normally be transcribed as long, but here seems to be short. There is possible justification for the suspicion that a scribal error exists somewhere here, and that the semitone *occursus* is also an error.
[58] Rankin (1993), 81 (no reference given for its position in CC.)

transcription process for this short piece is probably the most straightforward of them all, and is the only instance where the present author's transcription matches exactly that of another.[59]

The interval of a fifth seems intended at '*sanctus Swithunus*'. Apart from this, it is a conservative example of the Winchester style.

III.iii Ornaments, Romanian letters and rhythm: A hypothesis

Theodore Karp, in his book on the Aquitanian polyphonic repertory seeks to demonstrate how the music can be interpreted mensurally. He uses a variety of intuitive tools to obtain his results. Here we are not concerned with how he justifies his transcriptions, but rather that it is possible to argue for mensural interpretation of the repertory at all. Karp seeks to place the Aquitanian repertory into the same evolutionary course as the later Nôtre Dame repertory, which was definitely at least partly mensural.[60] His analyses of the pieces are based very much on the notation itself, and on the relative durations of consonances or dissonances.

For the music of the Winchester Troper it would be misguided to attempt to justify mensural interpretation on the basis of the intervals used, as these must be at least partly due to the subjectivity of the transcriber, it will be argued that other factors may be used to obtain satisfactory results.

The first question must be why a mensural interpretation be sought at all. There are various answers to this. The first is that the manuscript makes fairly extensive use of the Romanian letter *t* to show a long note, at points other than the ends of phrases. Secondly, the problems arising from having apparently too many

[59] That of Susan Rankin, who provided the neums as already mentioned.
[60] Indeed, later theorists explaining the rhythm of Parisian *organum purum* found it necessary to invent new terms for this un-mensural style, implying non-mensural music was something of a novelty.

notes might be resolved if a mensural system rationalised them. Thirdly, the fact that the liquescent and *oriscus* seem to be definitely shorter than other notes already takes us half way to a mensural interpretation in any case. The fourth point is that mensural music *did* happen eventually, but when it did it seems to have caused less of a stir than one might expect. In fact there are no surviving documents of any sort from the period supposed to contain the birth of mensural music (supposedly in the twelfth century under the guise of modal notation) that describe its genesis, creator, or even register surprise at it. It therefore seems likely that the notion of mensural music was known long before this. The fifth answer has to do with the nature of plainsong rhythm itself:

The Winchester *organa* are supposed to be in 'plainsong rhythm' which is generally understood to mean free speech-rhythm, or equal-note rhythm. However, it is generally now accepted that the performance of plainsong varied greatly from region to region and from time to time. So this does not rule out a mensural performance of plainsong. Guido discusses the relative duration of notes within neums:

> Just as in verse there are letters and syllables, "parts" and feet and lines, so in music there are phthongi, that is, sounds, of which one, two, or three are grouped in "syllables"; one or two of the latter make a neume, which is the "part" of music; and one or more "parts" make a "distinction", that is, a suitable place to breathe. Regarding these units it must be noted that every "part" should be written and performed connectedly, and a musical "syllable" even more so.
>
> A "hold" – that is, a pause on the last note – which is very small for a "syllable", larger for a "part", and longest for a phrase [*distinctio*], is in these cases a sign of division. It is good to beat time to a song as though by metrical feet….
>
> Towards the ends of phrases the notes should always be more widely spaced as they approach the breathing place….[61]

It has been rightly pointed out by opponents of a metrical interpretation of plainsong that, in this passage, Guido does not mean "neume" in the modern sense. He clearly means a sub-phrase. However, when he defines his terms, it seems fairly clear that his

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Plainsong was described as being non-mensural only in the sense that it was conceived as proceeding

"syllable" is probably identical with the modern "neum", consisting of one, two or three notes. The *Commemoratio brevis* gives the following concerning the duration of notes:

> No note or neum is to be unduly quickened or retarded;… Breves must not be slower than is fitting for Breves; nor may Longs be distorted in erratic haste and made faster than is appropriate for Longs. But just as all Breves are short so must all Longs be uniformly long, except at the divisions, which must [nevertheless] be sung with similar care. All notes which are long must correspond rhythmically with those which are not long through their proper inherent durations, and any chant must be performed entirely to the same rhythmic scheme…. Singing performed with evenness is said to have "ritmus" [ρύθμός, proportion] by the Greeks and "numerus" [measure] by the Latins, for without question all music should be strictly measured in the manner of prosody.
>
> [When] singing, the rhythm should be marked by tapping the foot or hand or whatever, so that from the start they [the singer] will understand the difference between evenness and unevenness and not develop bad habits.[62]

It seems fairly clear from this that the durations are not those of phrases, but are of individual notes. This tenth-century book is concerned primarily with psalm-singing, and it might be argued that the principles do not extend to other forms of plainchant. This would be to shy from the implications.

It would serve little purpose in quoting the sources much later than 1050, or from a significantly different area of Europe to back this up, as they would represent a different tradition in any case. That said, the notion of mensural plainchant can be found in the writings of many theorists right up to the Renaissance.[63]

The first point to be observed is that the final note of a neum is usually to be prolonged - let us call it 'long'. This means that the first note in a two-note neum is short. This is the same in mensural notation proper as used at Nôtre Dame. The second point is that notes at the phrase-endings are also long. This means that a two note neum at the close of a phrase becomes long-long (instead of short-long).

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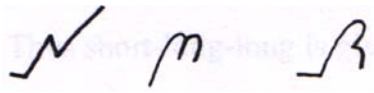
in longs (i.e. all notes of equal duration).
[61] Babb, transl. (1978), 70 & 72
[62] Bailey, transl. (1979) 103 & 107
[63] See Sherr (1992)

With purely these two facts, the Winchester music can be mensurally interpreted by examining the relationships of neums in one voice to those occurring simultaneously in the other voice. Taking the two-note neums:

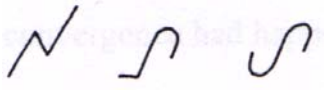
it can first be seen that two *puncta* or *virgae* written as a pair conform to the short-long rhythm (cf. the start of the verse of the alleluia). This covers all two-note neums.

The four-note neums are best examined next:

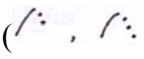
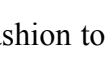


They can be seen to correspond to two two-note neums (cf. Alleluia – end of '*no*bis', Tract – end of '*quia mortus est*', etc.)

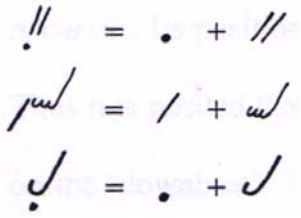
The three-note neums:

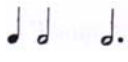


are often used in conjunction with a two-note neum and a single note to give the rhythm short-long-long (cf. Alleluia – end of '*alleluia*'), although this is not always the case. They also occur with a triple *punctum* or *virga*, which must likewise be interpreted in the same pattern of short-long-long.

Other neums also follow the same pattern of short-long-short-long-etc. always ending with a long note. This only applies to ligated neums (i.e. those written without removing the pen from the paper). During investigation into this, it was seen that the *climacus* neum () constitutes the equivalent of a ligated neum though, in similar fashion to the double *punctum* or *virga*, as does the *scandicus* (). Apart from these exceptions, all neums are separated into their constituent parts, each

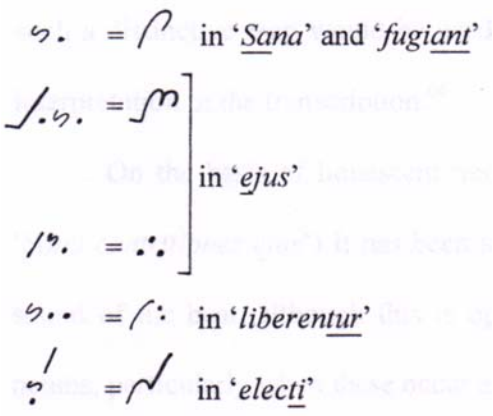
ligated part following the mensural form given above. This means that such neums as those below are broken up accordingly:



A ternary division of the beat has been used, in conformity with that of later polyphonic styles. The 'triple-time' aspect was thought to have been used as early as by St Ambrose (fifth century AD) in his hymns, and is a natural expression of the poetic metres that chant theorists such as Guido used for demonstrations of chant rhythm. Thus short-long-long is given as  .

In the transcriptions given, it will be seen that it has been necessary sometimes to prolong the final melody note of a phrase, which seems perfectly acceptable in a predominantly oral medium, where the singer would naturally hold the note until the unison convergence had happened.

With this as the basis, it is necessary now to examine the *oriscus* more closely. It has been suggested that it is a short note. This can be confirmed if the metrical nature of the other neums is accepted. For example, the *oriscus* occurs in the following combinations (all taken from the Tract) always on the short portion of the beat:



It is usually used in conjunction with another *oriscus*, or as the first note of an *occursus*. Its position in the latter context means that it falls at the start of the 'beat'. Thus it is posited that the *oriscus* is used to signify both a repeated pitch and a falling on the 'downbeat'. This means that for a neum such as the *oriscus* disrupts the metrical pattern and produces the rhythm long-short-long (as short-short-long is not possible in a ternary metre). In the case of *occursus*, it is sung to the final syllable despite being written with the group above the penultimate syllable. It seems therefore that it also disturbs the principle of underlay, being applied to the syllable *after* that above which it is written. The possible derivation of its name from 'a little hill' (Greek '*oriscos*') might imply that it makes a 'bump' in the metre in these ways.[64]

The apostrophe sign used as part of the *climacus* (eg.) appears to have no rhythmic function in the Winchester manuscripts, although it signifies a melodic descent of more than one step in most cases.[65]

The rhythm of the *trigon* is open to two interpretations. That in conformity with the metrical style of the rest of the music would be short-long-long. However, the fact that it is written as , and not as , which would be conventional, suggests that the neum is considered as consisting of , which would render a rhythm

[64] Hiley (1993), 359 (perhaps also sung with a slight accent to accentuate the appogiatura-like function and therefore also appearing like a 'bump' in the texture?)

of long-short-long. As the melodic features of the *trigon* are easily obtainable in the rhythm short-long-long by the use of  , it seems uncertain why such a distinctive sign would be used. Therefore I have opted for a long-short-long interpretation in the transcription.[66]

On the basis of liquescent neums containing three notes (cf. Tract – end of '*Sana contritiones ejus*') It has been suggested that the liquescent note takes the last sound of the beat, although this is open to dispute in cases of two-note liquescent neums, particularly when these occur at the ends of phrases.

Liquescent neums have been transcribed by ignoring the liquescent element to obtain the basic rhythmic shape, then tagging the liquescent note on to the end.

The *tractulus* () always represents a long note. I have also maintained a new 'beat' for a new syllable, to avoid un-syntactical oration (as at '*et adorate*' in the alleluia, and for much of the trope text of the kyrie).

By using these principles, metrical transcriptions can be made of the pieces. In most cases apparent extra notes in the middle of phrases are rationalised. It can also be seen that where the letter *t* has been placed for lengthening, a long note is found. Thus the use of the Romanian letter is merely precautionary. Where the notes at the end of a phrase are lengthened, it must be presumed that the singer of the principal part knew that it was a phrase-ending. This supposes, in agreement with Rankin's view, that the *organum* did not alter the phrasing of the original melody, but underpinned it, articulating it.[67]

Many aspects of the mensural transcriptions are more satisfying than the non-mensural ones, where notes are simply 'crammed in' to fit. The system proposed for

[65] It occurs perhaps more often where one might expect a phrase-ending though. The significance of this is unclear.

reading the rhythm is very easy to sight-read, and requires no 'working out' process for a singer prior to performance, provided he knew where the phrases were. However, it must still be stressed that these transcriptions are to be regarded as *hypothetical*. Indeed, the method is not perfect, as a very small number of neums (just three out of the pieces transcribed) have had to have been transcribed at odds with the system just proposed. This seems a low enough proportion to warrant tolerance though. It has been fortuitous in the examples used that the underlay of text to both voices has remained both true to the manuscript and synchronised with each other in mensural transcription. Were this not to have been the case, and syllables were sung in different places in different voices, then severe doubt might be cast on the interpretation. It remains to be seen if this might be the case with other examples.

The sequence melody transcribed could not be accommodated to this system properly. However, the notation of this may represent a special case. The piece is notated with the word 'Alleluia' at the start with no text thereafter. Richard Crocker's view that sequences of this sort were never sung as untexted melismata (or a kind of extended jubilus) seems well-founded, and it is only logical that a text would have been sung to the melody.[68] Doing so involves breaking the neums over more than one syllable of text each, and hence may be inferred as destroying the mensural nature of the neums in any case. Thus the transcription presents the opening word ('Alleluia') as mensural (as it is underlaid clearly), and presents the rest as non-mensural. The full text proper to this melody is given beneath it. The opening word of this does not involve splitting neums and is simply 'overlaid' where the 'Alleluia' was. The

[66] There is always the possibility that the neums were simply copied from an earlier source unchanged, where the *trigon* had another nuance-related meaning.
[67] Rankin (1993), 74-78
[68] Crocker (1997b), 199-203

niceties of performance of this piece have not been entered into, although it might seem odd to perform it as presented in the transcription.

The method of reading the neums also leads to a few surprising results if correct. First in the *Alleluia* towards the end of the third phrase we find a sort of 'exchange' of the note 'F' between the two voices. While only brief it stands out from the surrounding texture as dimly imitative. Such a feature would be highly unusual in so early a period. There are also possibly more increased instances of perfect fifths when treated mensurally. The fact that fifths occur in the style in any case makes this less worrying though.

Whether or not the music contained within the Winchester Troper was derived from a rhythmic tradition after the fashion suggested is open to dispute. However, the integrity of the pieces is not compromised by reading them in this manner; the theorists of the time, and that preceding, from similar traditions confirm notions of mensural chant, and many of the problems confronted with non-mensural interpretation are disposed of. The biggest possible problem with the notion as presented is its very self-consistency. No system of mediæval musical notation was known to be self-consistent. Signs meant different things depending on context (witness the notation of modal rhythm, or the later *Ars Nova* notation), and to propose a simple system of fixed meanings to neums may be anachronistic. Why would such a simple system be discarded for one far more difficult to interpret?

Postscript: The 'Evolution' of the Winchester *Organa*

The question raised at the end of part II.i concerning the origin and evolution of the practice of *organum* can now be briefly addressed in conclusion.

The two possible origins put forward for *organum* were:

a) It was derived from singing in strict parallel intervals, or

b) It was derived from heterophonic embellishments to a single melody.

The second suggestion was adapted by Wooldridge in his suggestion that *organum* may have derived from the Greek practice of *magadising* (singing in embellished octaves?). It is doubtful that much can be gained from postulating the origin of one practice into another far less-understood practice though.

The pragmatist might suggest that *organum* may have arisen from both causes equally. This is both unhelpful and unenlightened, for even if the two reasons are both relevant, one would be expected to be more important than the other.

When the few transcriptions presented are examined we find many passages of apparent heterophony actually being written down. This is found in the Kyrie and the Tract extensively, and it seems to be impossible to transcribe these passages using other intervals without severely transgressing the harmonic style and/or the guidance of the Romanian letter *e* (signifying the same pitch as the preceding note in all but exceptional cases).[69] As the pieces were selected on the basis of availability of facsimiles to confirm others' readings of the *vox principalis*, and not on the basis of their musical style, that two out of five pieces can only be taken tentatively as representative of at least some general stylistic features. This discovery seems to indicate that heterophony forms a greater part in the makeup of the Winchester organal style than does the parallel interval, as the percentage of instances of pure

parallel fourths in the pieces is extremely low (both in absolute terms and compared to the use of heterophony).

Turning to the observations of Heinrich Husman regarding singing in Eastern churches, we hear of *organum* being sung 'accidentally' in the Syrian Church. He tells us that choir-members sing in parallel fourths often unaware of what they are doing, excusing their behaviour with the psychological reasoning that such consonant intervals are heard by some as a unison:

> Not only did this one young brother sing parallel intervals, but also the others of the choir, though singing unison in psalmody and in melodic pieces, used a very much freer practice when praying together. Then each monk was allowed to recite in his own range; and normally the result was not a musical chaos, for the monks regulated the range so that third-, fourth-, or (rarely) fifth-parallels emerged….
>
> These experiences show all forms of reciting and singing in parallel intervals. The cruder examples used seconds, thirds, and fourths together; the more elevated communities sang in either thirds or fourths; and the highest style practiced only parallel fourths (very rarely fifths). These different types of parallel singing obviously demonstrate the psychological origin of organum at the fourth: in the most primitive style each person sings in his normal range, but when the musical ear controls the polyphonic result, the principle of consonance puts the intervals in order. *Persons trying to sing at the same pitch may sing at first in parallel seconds, thirds, or fourths (the interval of the fifth is already too wide)*, but they will gradually adjust to parallel fourths: those singing in parallel seconds will join those at the unison, and those singing parallel thirds will combine with those singing at the fourth.[70]

While the subjective notion of 'refinement' into parallel fourths is dubious, the italicised passage (my italics) is very important because it describes heterophony as found in Winchester. That all aspects of the transition between unison and parallel fourths should be exploited as an artistic end in itself is not considered by Husman, although that is precisely what happens in the *organa* of Winchester. Thus it seems from this at least that *organum* was not derived from any preëxistant singing in parallel intervals, but from unison singing. In as much as ME and SE suggest the duplication of voices at the octave, it can be seen as similar to the principle of *magadising* given earlier, and may indeed have its roots further back in antiquity than is often given consideration.

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[69] Other commentators have not mentioned examples of heterophony in the repertoire before.
[70] Husman (1966), 437-9

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