PRACTICAL INSTRUCTION

IN

PLAINSONG ACCOMPANIMENT

No 792

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PRACTICAL INSTRUCTION

IN

PLAINSONG

ACCOMPANIMENT

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PREFACE.

Our method of plainsong accompaniment is not a system; there is no system, there cannot be one. Plainsong ought not to be accompanied; existing practice can be explained, though not entirely justified, by only two considerations: established custom, and the frequent necessity of supporting unreliable singers.

We have only one rhythmic doctrine: that of Solesmes; in addition we have a conception of modality which is based, not on *a priori* theories, but on very definite facts. We do not want an *unrhythmical* accompaniment, for that would become fatally *anti-rhythmical*; yet we demand that chordal changes be reduced to a minimum, being reserved especially for the greater or lesser cadences. Next we observe that chords, by their very length, emphasize unduly what the melody merely suggests with a certain delicacy: so that our accompaniment is bound by restrictions (even to the point of poverty and baldness). Hence our method is not a system.

More than twelve years ago we published a *Treatise on the Accompaniment of Gregorian Chant* (1), in which we gave a (very elementary) method of harmony and counterpoint (adapted to our purpose), and then explained our principles of accompaniment. The present book is not a mere revision of the *Treatise*. For here we presume that the reader is already familiar with the practice of written harmony, and merely confine ourselves to certain points which are often missed by students simply because they are not dealt with in their ordinary academic training. Nevertheless we restate our principles of rhythm and modality, without much discussion, but with detailed precision, completing and even correcting (where necessary) the rules given in the *Treatise*. This takes up about a quarter of the book. The remainder is far more important and is in fact the end and justification of this *Practical Instruction in Plainsong Accompaniment*.

In fact, this is a practical study of the plainsong repertory, in the form of a commentary on and accompaniment for about forty complete melodies and numerous fragments. Furthermore the present work has nothing in common with the *Vingt-neuf Pièces harmonisées et commentées* (2), prepared in collaboration with Dom Desrocquettes. There we gave twenty-nine accompaniments and explained them. In the present book (in which we have tried to include every aspect of the magnificent plainsong repertory) we deduce our accompaniments step by step from a study of the melody, as it were in collaboration with the reader. This is therefore primarily a method of work, covering (we believe) every practical case. Thus the book, which is complete in itself, will be required by all those who have already honoured us with their confidence, because it is the adjustment, the complement, the correction, and (above all) the practical application of all our previous studies.

(1) English translation by Ruth Gabain (Desclée, 1933).
(2) Published by Hérelle (Paris) 1929.

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It should be added that, although we have followed the traditional order of the modes, nevertheless the mode in which a melody is classed is merely that of its final cadence; apart from such distinguishing cadences, the melodies have many points in common. Thus the chapters at the end of the book are perhaps less fully developed than those at the beginning, so as to avoid repetitions. In consequence the reader should not isolate the chapter on the tetrardus (for example) without having studied the previous chapters: that would be to gain an incomplete idea of what we have to say, even about the tetrardus. Similarly we have not printed out in full the accompaniments that we construct phrase by phrase; to have done so would have increased the size of the book unnecessarily, and might even have tempted the reader to skip our detailed analyses.

We hope that even those who are not particularly interested in the practice of plainsong accompaniment may yet find in this book ideas of a more general kind to interest them. The subject is still far from clear, and the musical text itself has not always been seriously examined.

Finally, although it was to some extent possible to *read* our previous *Treatise* (much as one might read an article in a magazine), yet it will soon be apparent that this book of *Practical Instruction* requires far closer attention. Each melody, before it is analysed, is transcribed in modern notation together with the necessary reference-numbers. But in order to follow our analysis, the reader must always have the musical text before him; otherwise the notes, syllables or words to which we refer will mean nothing to him, even though, because of his disinclination to turn back, he looks ahead to the accompaniment we propose. Moreover this book, rather this study, possesses none of the ornaments of style and is not easy reading (we have aimed merely at clarity, at the cost of elegance and without avoiding verbal repetitions); yet we think it may be helpful.

With regard to the actual principles (especially the modal principles), although they were at first criticized in some quarters as simple practical « dodges », we have since had the satisfaction of seeing them accepted in many places and understood, not merely as a system of accompaniment, but as the application of the modal laws of plainsong (1).

We are not vain-glorious on that account. Besides, we cannot forget how much is owing to Dom Desrocquettes in the elaboration of these principles, and to Dom Gajard, whose labours preparatory to the publication of the Monastic Antiphonar have cast so much light upon them. Our one desire is that, since plainsong is in fact so often accompanied, it may be accompanied more perfectly, with greater care, and in accordance with the precise indications of the melody, thus enhancing the beauty and dignity of our liturgical services.

H. P.

(1) The Ambrosian Chant, as the recently published *Antiphonale Missarum* shows, follows the same modal laws.

PART I.

PRINCIPLES.

CHAPTER I.

HARMONY.

We begin with a general and absolute law: the accompaniment may admit, whether as *harmony-notes* or as *unessential notes*, only such notes as the melody itself admits, and in the same proportion as the melody admits them.

I. Harmony-notes.

Therefore, leaving aside all transposition, the only possible fundamentals are: C, D, E, F, G, A, B-flat, and B-natural, generating the chords of C major, D minor, E minor, the diminished fifth on E, F major, G major, G minor, A minor, B-flat major, and the diminished fifth on B-natural.

Precise rules will intervene later on the subject of B-flat and B-natural, and other severe restrictions will be imposed.

1. *Chords of Three Notes.*

If, to begin with, we consider the chords of three notes (i. e., the concords), we must notice that the chord of the diminished fifth, especially in its root position, is not generally suited to the plainsong idiom, for reasons which we shall have to explain later. We use it only in certain cases, and then in its first inversion.

There remain the common chords, major and minor. The root position and the first inversion (the so-called chord of the sixth) are allowed without restriction (within the boundaries imposed by modality and rhythm).

A. *Chords of the sixth.* We must notice however that a chord of the sixth is nearly always a chord of transition, of movement, and that its lowest note cannot proceed by a notable leap without offending musical logic and elegance.

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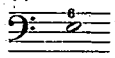
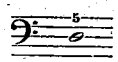
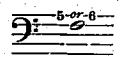
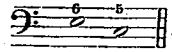
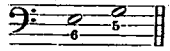
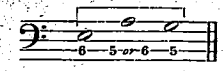
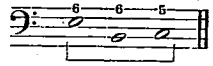
In practice, therefore, we conform to the following rules:

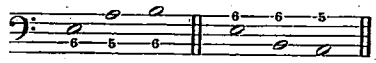
(a) After a chord of the sixth, the bass may always proceed *by step*, up or down. If a second chord of the sixth follows, this in its turn must follow the rules (1).

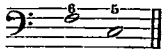
Thus from :  we proceed to :  or : 

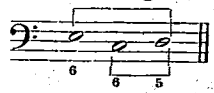
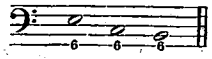
(b) The bass may descend a third to become the bass of the same chord in its root position : 

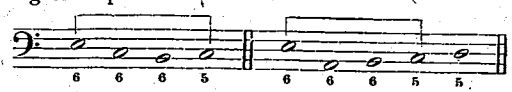
(c) The bass may also rise a third to become the bass of another chord in its root position : 

(d) When the bass leaps a fourth or fifth, whether up or down, this should represent a mere transition to the chord we normally expect. Thus :  This example is correct because after the bass leap of a fourth the chord of G is established in its root position, as in (c) above. The upward leap of the bass is *corrected* by its subsequent descent to G. Similarly : 

But the following examples :  are at best mediocre.

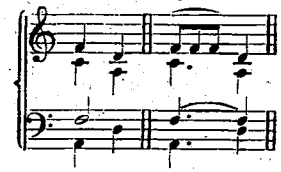
(e) The case of the following plagal cadence :  is permitted, because here the bass F is so important that it may be regarded as the root of a chord.

(f) The leap of a third in the bass, when two chords of the sixth are involved, ought as a general rule to be *corrected* according to the procedure given in (d) above. For example :  Such a progression as :  is not recommended. Sometimes, however, the so-called "correction" may be somewhat delayed, as in the following examples :

 etc.

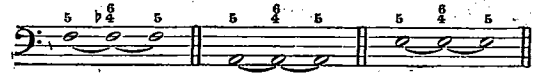
(1) Treatises on Harmony are rather vague on this matter, because in the study of classical harmony the difficulty is not so acute as in plainsong accompaniment. We have found by experience that many students, who otherwise write quite correctly, use chords of the sixth badly.

(g) Among the frankly detestable progressions which the student is liable to write, and which are to be found even in published accompaniments, we must mention the following cadence :

 (cf. *Amen* of the Introit psalmody, mode I).

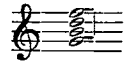
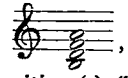
Within these limits, the first inversion of the common chord is regularly and frequently employed in plainsong accompaniment.

B. *Chords of six-four.* Second inversions (chords of six-four) are in quite a different category. There is only one case in which they may be used without danger, viz., over a bass "pedal". Even then *the six-four chord must be preceded and followed by a fundamental chord on the same bass note.*

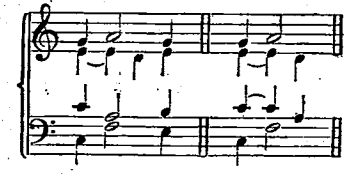
Thus :  etc.

In accompanying plainsong, beginners should never use a six-four chord in any other way.

2. *Chords of Four Notes.*

Chords of four notes (chords of the seventh), excepting those in which there is a diminished fifth between the third of the chord and the seventh :  , may be used in accompanying plainsong on certain conditions. The following chord, in which the diminished fifth is a fifth above the bass :  , is only allowed with strict reservations, at least in its root position (1) (like chords of the diminished fifth).

(a) Nearly always, the seventh, whose natural place is in the alto, must be *prepared;* it must always be *resolved;* and since the fifth of the chord is frequently suppressed, the seventh often sounds as much like a *suspension* as a harmony-note :

 (In this second example the chord of the seventh is complete).

The preparation is made by a tie, and the resolution is by step to the note immediately below.

(1) Above all, the B must never give the impression of a "leading-note".

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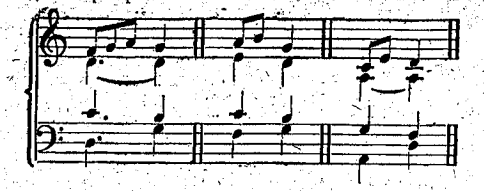
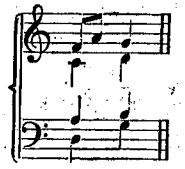
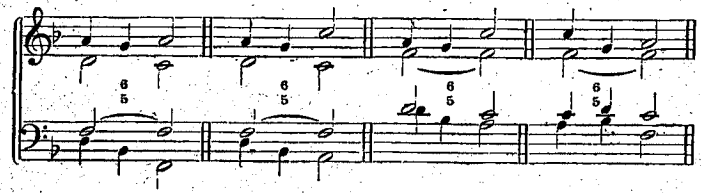
(b) However, in certain cadence-formulas of modes VII and VIII and also of modes I and II, the preparation of the seventh does not matter much :



In the first and third of these cadence-types the seventh is mostly in the tenor; in the second, the major seventh (in the alto) is nearly always used. When the chord is complete (including the fifth), the seventh (in the alto) may rise to the note above :

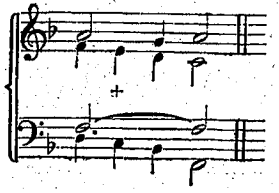


(c) The first inversion (chord of the added sixth) is frequently used. In this case the seventh (now a fifth above the actual bass) is in the tenor, sometimes in the alto; it is prepared by a tie; but in accompanying plainsong, the most frequent case — in fact almost the only case — is when the seventh is sustained as a short internal " pedal " :



Furthermore, the chord of the added sixth often gives the actual bass note an importance equal to that of a fundamental, with the sixth as a sort of unessential note, and this explains why it is sometimes introduced without preparation and resolved in unusual ways (1).

(d) The second inversion is not recommended except in cases where it has to be regarded as the consequence of passing-notes :

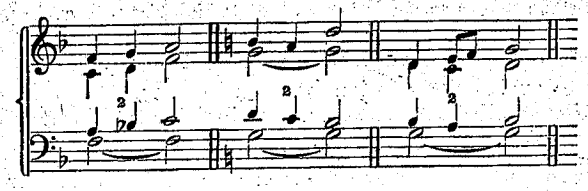


(Major third and perfect fourth).

(1) In this case, as in others, we are here giving only general principles. In Part II will be found all the necessary examples and a precise working method.

(Here the alto E and the bass C are passing-notes).

But *the third inversion*, where the seventh is in the bass, is quite possible, and, in certain cases, excellent, *on a bass "pedal"*, under exactly the same conditions as for the six-four chord (see above) :

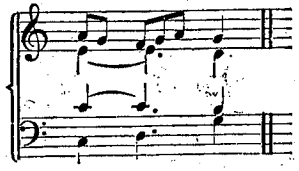


This chord of the second may often be analysed on the principle of unessential notes (passing-notes, auxiliary-notes, etc.). But as it establishes a new chord, its character is more emphatic.

N. B. With regard to the chord of the seventh and its inversions, the student should confine himself strictly to the cases given here.

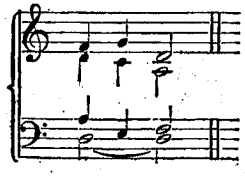
3. *Chords of Five Notes.*

Chords of five notes (chords of the ninth) are more difficult to manage; but there is no reason for excluding them *a priori* (1). One case is quite practical and easy to apply : it is that of certain cadences of modes VII and VIII :



(Here the seventh and the ninth are both prepared).

Chords of six notes (chords of the eleventh) are hardly ever possible except on certain tonic " pedals " :



(Here both the third and the fifth are suppressed).

(1) Except what are termed " dominant ninths ".

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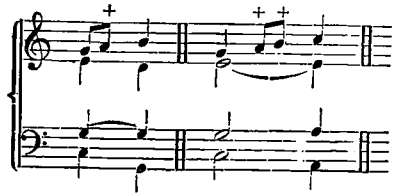
II. Unessential Notes.

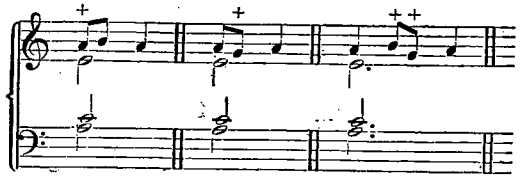
1. **In the melody,** passing-notes, auxiliary-notes, anticipations, changing-notes, appoggiaturas of every kind, with or without resolution, in other words, all notes which are not essential to the harmony (1), are frequently used, because the accompanist has to space out his chords as widely as possible and reserve them for the right places.

In order to avoid all confusion between the terms, we here repeat their definitions, while at the same time we indicate certain peculiarities.

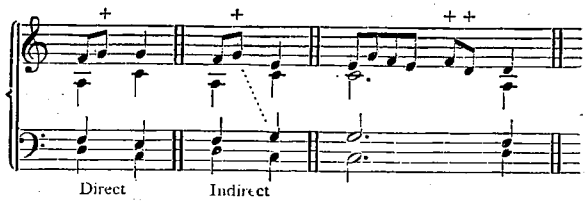
A. *Passing-notes* are those which connect by conjunct degrees two harmony-notes. In diatonic music there may therefore be either one or two passing-notes between two harmony-notes :



B. An *auxiliary-note* is an unessential note following a harmony-note at the interval of a second, above or below, which returns to the harmony-note. If two auxiliary-notes, upper and lower, succeed one another, the first return to the harmony-note may be suppressed :

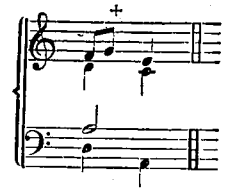


C. An *anticipation* is an unessential note which anticipates a harmony-note of the subsequent chord; when the anticipated note is actually that of the melody, it is called direct anticipation; when it is merely one of the other harmony-notes, it is called indirect or purely harmonic anticipation :

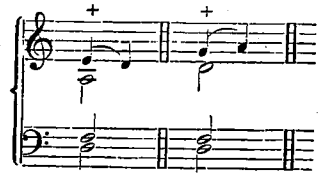


(1) With the exception of suspensions, which as a rule are possible only in the accompanying parts.

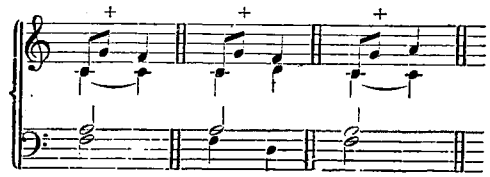
D. A *changing-note* is similar to an auxiliary-note, except that it does not return to the harmony-note. It is very often an indirect anticipation as well; but a changing-note need not have any connexion with the subsequent chord :



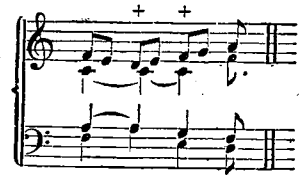
E. An *appoggiatura*, properly so-called, coincides with a change of chord and is resolved on the note immediately above or below :



Nevertheless we retain the term *weak appoggiatura* (although the term is inaccurate) (1) for an unessential note approached by leap, without change of chord, which is at once resolved on the note immediately above or below :



When the melody proceeds by step, the appoggiatura could in certain cases be considered as a passing-note or an auxiliary-note, coinciding with a change of chord :



(1) In the sense that it recalls the false theory of strong and weak beats or of the strong and weak parts of the beat.

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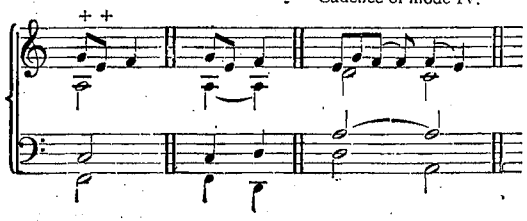
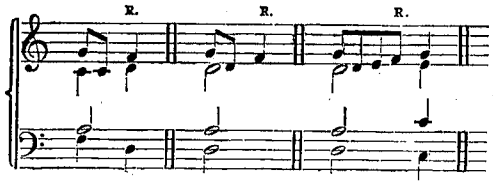
In this case, what is of practical importance is to notice that either the first or the second note of the group may be a harmony-note of the new chord.

An upper and a lower appoggiatura (or *vice versa*) may follow one another before the resolution occurs :

Cadence of mode IV.



Similarly, another harmony-note may intervene before the resolution :

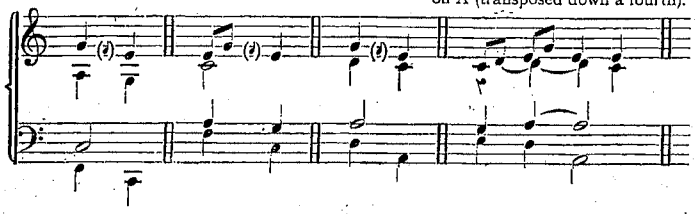


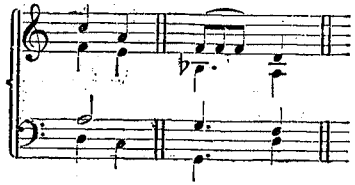
(Here the letter R. indicates the resolution).

As the first of these examples shows, the resolution need not come on the original chord.

But the most remarkable thing about the appoggiatura is that the resolution is often *merely implied :*

Cadence of IV - mode Antiphon on A (transposed down a fourth).

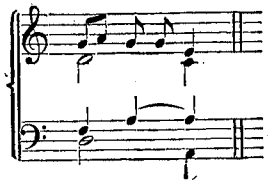




Possible cadence for Introit psalmody of mode I.

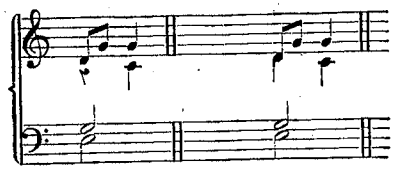
These last two examples we could regard as chords of the seventh with the seventh resolving on the fifth of the same root, the resolution coinciding with a change of chord. (Similarly in the first example, where, in a chord of the ninth, the ninth may be regarded as resolving on the seventh). But theoretical analysis is not of great importance.

Similarly, in a case like the following :



the two G's could be regarded as a double changing-note.

Finally, we find formulas like the following, which can be of practical importance (1) :

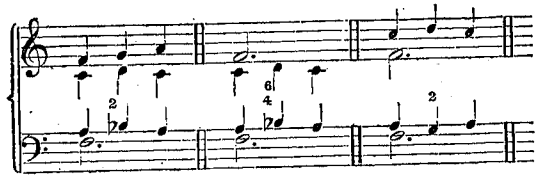


(In both of these examples, the D in the melody is an unessential note).

2. **In the accompanying parts,** which move much more slowly than the melody, changing-notes and anticipations are practically never used.

A. An *auxiliary-note*, which is a purely melodic ornament and marks no real movement (since it returns to its starting-point), is nearly always, by itself, a useless displacement of one of the voice-parts of the accompaniment. We therefore advise the student not to use any mere auxiliary-note in his accompaniment.

But if it brings about a change of chord, its use can be very effective. This happens chiefly on tonic " pedals ", when the chord of the six-four and that of the second are established by the use of auxiliary-notes :



Generally speaking, an auxiliary-note should be rather emphatic in character, and not merely " marking time ".

(1) *A priori*, we should try to find more natural-sounding harmonies. But reasons of a modal or rhythmic kind intervene and compel us to use the progressions indicated.

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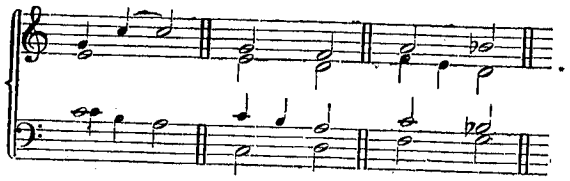
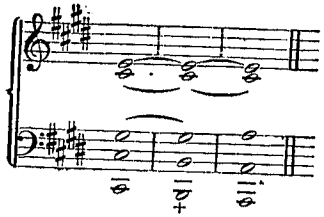
B. A *passing-note* is quite a different matter and indicates real movement.

It may occur in the bass, in the tenor, or in the alto :

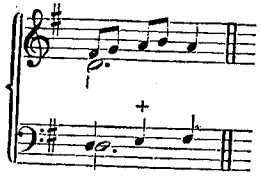


It is to be noted, however, that a *relatively* long passing-note (such as is used in plainsong accompaniment) is much better when it proceeds downwards than upwards; its restless character is better resolved by a falling movement than by a rising one. To appreciate this, it is sufficient to recall the first bars of Beethoven's " Moonlight " Sonata (op. 27, n°. 2), of which the following is the harmonic scheme :



In reverse, that is to say beginning with the chord of A major and ending with the chord of C-sharp minor, with B in the bass as a passing-note, this progression would be a bad one.

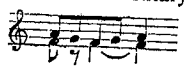
Practically speaking, then, we should confine ourselves to descending passing-notes. But *in the tenor*, examples like the following are excellent, just as are all progressions in which the passing-note seems to establish a new chord :



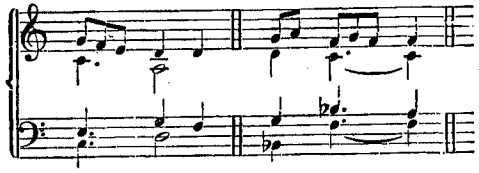
(Antiphon *Stella ista.*)

Furthermore, all passing-notes which lead to a unison should be systematically avoided. For example : (1)

(1) Such passing-notes are allowed only when the unison is momentary :

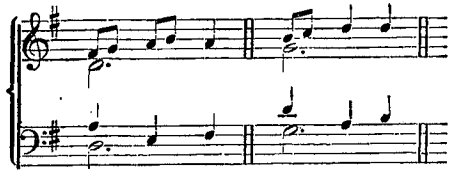
Played thus : 

C. With regard to the *appoggiatura*, there is a tendency among students to use it when in fact *a suspension* is required but seems impossible to prepare. Here are two instances :



In such cases the writing is nearly always clumsy.

But an appoggiatura of the third in the tenor is often very effective, apart from the cadence-formulas just quoted :

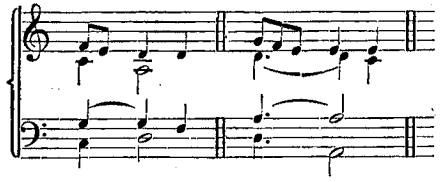


In any case, this is a procedure which needs to be used with understanding and demands a certain degree of skill.

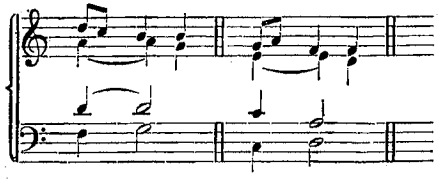
D. There remains the question of *suspensions*, which sometimes seem to be absolutely demanded.

(a) *With a fundamental chord*, we may mention :

(i) the 4-3 suspension (in the tenor or in the alto) :



(ii) the 9-8 suspension (in the alto) :



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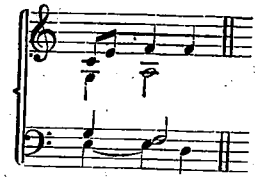
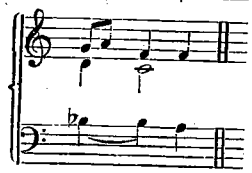
(iii) the suspension of the root itself (in the bass), which is less frequent in plainsong accompaniment :

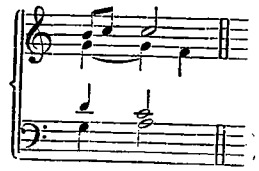


(b) *With a chord of the sixth*, we may have :

(i) a bass suspension :

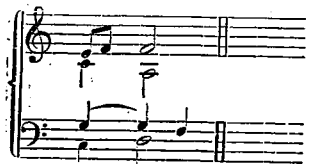


(ii) a 7-6 suspension (in the alto) :



In this last example the seventh may be considered either as a suspension or as forming part of a chord of the seventh with its fifth omitted.

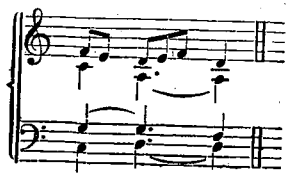
In conclusion we repeat the ordinary academic rule with regard to suspensions : *the suspended note and its resolution must never be heard together.* For example :



(Bad.)

except in the case of a 9-8 suspension (see above).

But when during a suspended note, its resolution occurs in the melody as a sort of ornament of short duration, this is not regarded as an infringement of the classical rule. Such a procedure is not really practical except in plainsong accompaniment :



Here, during the tenor suspension, the essential note of the melody is D ; the E and the F are merely ornamental.

Finally we must not forget that a suspension, by the very fact that it coincides with a change of chord, marks a much more important rhythmic ictus than its resolution, which nearly always occurs on the same chord.

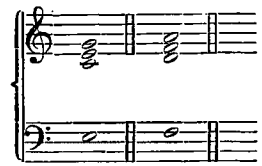
It is, therefore, in certain cadence-formulas, and especially for rhythmic reasons, that we are almost compelled to use suspensions. But apart from these cases, suspensions are possible (as we shall see) even in the middle of phrases, provided we take into account their peculiar rhythmic character.

III. Practical Rules.

Plainsong is not subject to the imperialism of the classical tonic, still less to the attractive power of the "leading-note". And so its accompaniment pays no attention to the harmonic hierarchy of the degrees of the scale; it obeys other laws, not these. Furthermore, a plainsong accompaniment makes no pretence of giving to each of its parts the melodic and rhythmic interest and independence which they would have in a vocal quartet. These two considerations justify certain rather easy-going procedures and liberties which would not be allowed by the academic rules of classical harmony.

1. **With regard to the disposition of notes in the chords,** there is nothing to add to the ordinary rules. However, it often happens, as we shall soon point out, that the third of the fundamental chord is doubled, occurring both in the melody and in the tenor of the accompaniment; we shall explain why.

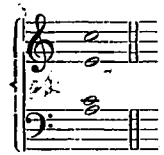
But when the third is in the bass (chords of the sixth), the doubling of the bass note by the melody must be only momentary (according to the traditional academic rule). The doubling of the bass by the alto is no less disastrous :



(Bad.) (Bad.)

Such doublings (by the melody or by the alto) are always strictly forbidden.

But in accompanying plainsong it is nearly always better when the melody is well separated from the alto, especially in the case of reciting-notes; by this means, too, many unisons and other inconveniences are avoided when the melody descends.

A chord spaced thus :  not only sounds better, but is

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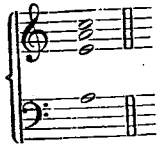
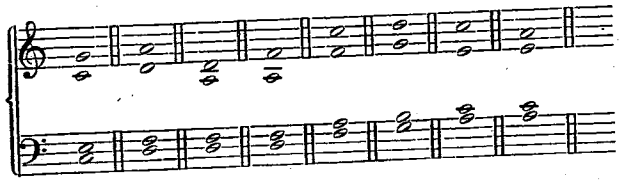
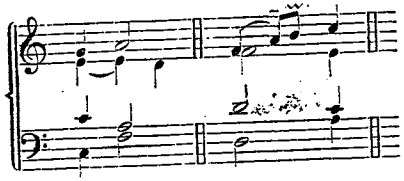
better as an accompaniment than :  It is easy enough to prove this by practical experience.

Furthermore, in the former case, the doubling of the third by the tenor allows us to have a full chord without making any change when the melody descends to A.

Therefore our fundamental chords should be framed on the following models, with the third in the tenor :

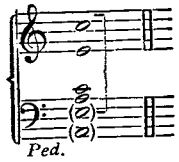
 etc., etc.

Yet these recommendations are not without their exceptions. Thus it is sometimes necessary for the alto to be quite close to the melody (to prepare a suspension, for instance) and even to be in unison with it (when the melody is about to rise) :



(In both of these examples the third is in the alto).

Nevertheless our general principle is important. Even wider dispositions of the chords can be very effective; but if they are exaggerated, the continuous large stretches make it difficult for the fingers to maintain a true *legato*. Besides, if we desire to fill out the accompaniment (without making it too loud), it is much simpler to double some of the notes, keeping the written accompaniment as our basis, and using a soft pedal of 8 and 16 ft. :



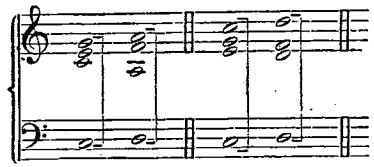
This is a much better method of sustaining the voices than adding stops, and it does not drown them.

When the student has had sufficient practice in writing the kind of accompaniment we propose, his fingers will automatically supply the necessary doublings when the occasion arises.

2. **Octaves and fifths,** which in classical harmony provide the opportunity for severe rules, should obey the following principles :

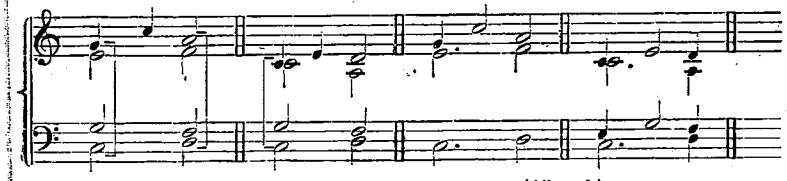
A. *Between the outside parts*, the ordinary rules apply :

(a) Consecutive octaves and fifths are forbidden



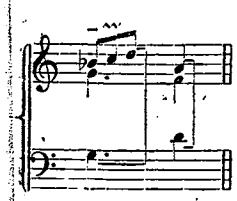
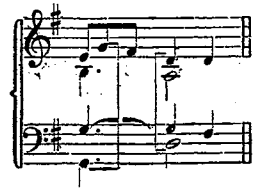
(Forbidden.)

A change in the position of the first chord does not mitigate the force of this rule unless the second position lasts sufficiently long; it should have the value of at least two "compound beats" (two or three simple notes of the melody make a compound beat. For a precise definition of the term, see the next chapter) :



(Forbidden.) (Allowed.)

(b) *In contrary motion*, fifths are allowed in such cases as :

 and octaves when there is an intervening note : 

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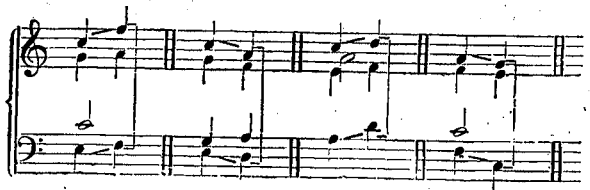
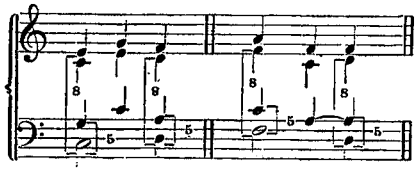
(c) Hidden octaves and fifths are allowed provided the *upper* part moves by step. There is no other restriction:



B. *Between the other parts*, i. e., between the inner parts or between an outer part and an inner part:

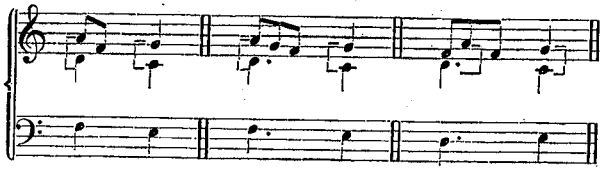
(a) Consecutive octaves and fifths, and fifths by contrary motion, are governed by the same rules as apply for the outside parts.

But a change in the position of the first chord which lasts for only one compound beat is sufficient to justify a breach of the rules. Thus:

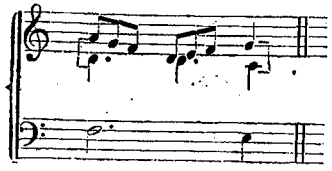


(Both of these examples are permitted in accompanying plainsong).

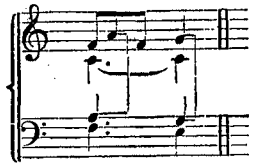
b) We must be on the alert for *fifths between the melody and the alto*:



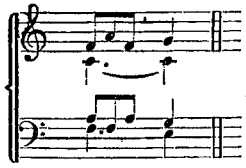
The first two of these examples must be avoided; the third is at best tolerable. If a compound beat intervenes, such fifths are permitted provided that the second fifth is approached by contrary motion:



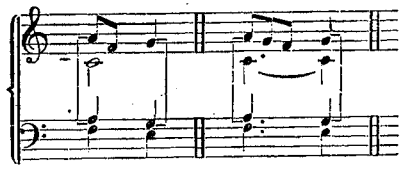
(c) There is no need to be severe when *octaves* occur *between the melody and the tenor*, provided they are not immediately consecutive. Cases like:



which are forbidden in classical harmony, are certainly preferable to a fussy "exchange of notes" which uselessly encumbers the flow of the melody, thus:

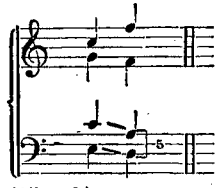


In a carefully written accompaniment it is better to avoid progressions like the following:



although *the octaves are corrected by the contrary motion.* But such progressions will inevitably occur in practice and, especially when the octaves are further apart, are quite unexceptionable.

(d) Between the inner parts or between the bass and one of them consecutive octaves and fifths are forbidden, but hidden octaves and fifths are allowed. Thus:



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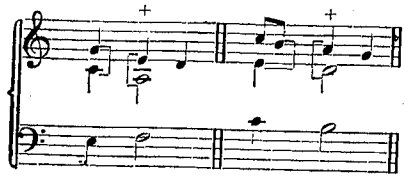
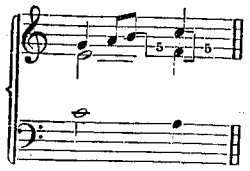
C. On the question of *fifths formed by unessential notes*, the academic rule states that if the *second* fifth involves an unessential note, there is no fault. This often happens in plainsong, when an appoggiatura is used:

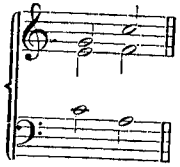


(The sign + indicates the appoggiaturas. In both instances the second fifth involves an unessential note).

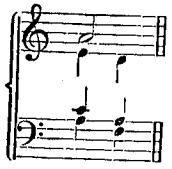
But if the second fifth is between two harmony-notes and the first fifth involves an unessential note, then any *passing-note* which emphasizes the progress to the second fifth renders the example faulty. Thus the following instance is bad:



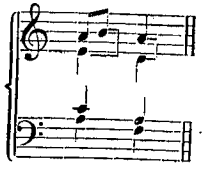
although without the passing-notes it would be correct:



When an *auxiliary-note* is involved, some authorities do not allow fifths. But we allow them in plainsong accompaniment because an auxiliary-note is not a true movement but a mere ornament. For instance:



is quite correct with the addition of an auxiliary-note:



The writing of a plainsong accompaniment demands a very sound technique, because of its modal and rhythmic peculiarities; in any case the writing must always conform to the plainsong ethos. It is presumed that the reader has already studied elementary harmony. In our previous *Treatise* we provided exercises in counterpoint in conjunction with the study of harmony; these are the best and the shortest preparation for the study of plainsong accompaniment. Yet, although we must respect the *spirit* of counterpoint, we cannot pretend that the beautiful melodic lines it requires are often possible in accompanying plainsong. Nevertheless, exercises in counterpoint are a necessary discipline: they develop fluency with the pen, instil a sense of style, and are to musical composition what classical studies are to the formation of the mind.

CHAPTER II.

RHYTHM.

I. The Transcription of Plainsong into Modern Notation.

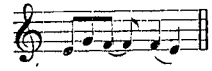
Since in order to write an accompaniment we have to transcribe the plainsong melody on the five-line stave, in the treble clef, and in modern notation, let us examine the principles on which such transcriptions are made in the Solesmes editions.

A simple note, of whatever kind, is written as a quaver: ♪.

When two or more simple notes form a neum or a group, they are written as quavers bound together thus: ♫, ♫, ♫, etc.

A *bivirga* and a *distropha* are written thus: ♫; a *tristropha* thus: ♫.

Liquescent notes are written as smaller notes: ♫, ♫, etc.

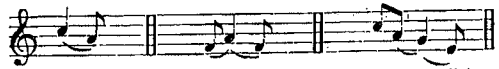
An *oriscus* is represented thus: ♫ 

An isolated *punctum* in front of a group should be separated from the group: ♪ ♫.

In a *salicus* of three notes, the first note should be separated from the second, and the second marked with a horizontal episema: ♪ ♫.

A *quilisma* is indicated by the sign ~ placed above the stave, and the preceding note is marked with a horizontal episema: ♫. (The horizontal episema is not given in the plainsong notation when the quilisma has only one or two notes of preparation).

A *pressus* is represented, not by two tied quavers, but by a crotchet: ♩. In order to preserve the unity of the group, the crotchet is joined to the subsequent note by a slur. If the pressus is formed by the fusion of two neums, a second slur becomes necessary.

Thus: 

Podatus and clivis. Climacus and clivis.

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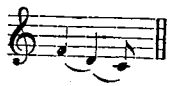
Sometimes there are two pressus in succession : 

On the other hand, an isolated punctum in front of a pressus is not joined to the pressus :

Dotted notes are written as crotchets; and, when they are part of a neum, a slur is required to indicate the grouping.

Thus :

Doubled clivis. Doubled podatus. Podatus subbipunctis. Quilisma formula.

Hence, apart from the case of the pressus, there are the same number of actual notes in the modern notation as in the original plainsong.

The horizontal and vertical episemas of the rhythmic editions are written above the stave.

A final double-bar is written on both staves of the accompaniment; all other bar-lines are written only on the top stave. Furthermore, a full bar-line normally implies a silent break of the length of a simple note; and this is represented by a quaver rest, before or after the bar-line according to the rhythmic grouping.

If these principles are adhered to, there can hardly be any doubt as to the original notation.

The first thing to do, therefore, before writing an accompaniment, is to transcribe the melody correctly in modern notation in the treble clef, leaving room for a second stave with the bass clef.

II. Elementary Rhythm.

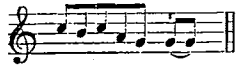
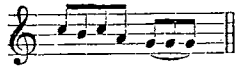
In the last analysis, rhythm implies duple and triple groups : in other words, there is a rhythmic *ictus* after every two or three simple note-values (i. e., after every two or three quaver beats). Some of these ictus are of very little importance; some are, so to speak, merely logical (a group of four being divided into 2 + 2, a group of five into 2 + 3 or 3 + 2). Since the value of the simple beat (a quaver) is constant, it follows that the ictus are not equidistant when duple and triple groups are interspersed : this is the main difference between the free rhythm of plainsong and the symmetrical or *measured* rhythm of modern music. Furthermore, the Latin accent of the plainsong era is quite independent of the musical rhythm : there are other things to guide us in our analysis.

1. *Rules for Rhythmic Analysis.*

The rhythmic ictus occurs in the following places :

A. *On every note marked with a vertical episema.* This rule takes precedence of all the others. It is to be noted that of itself a *horizontal* episema does not denote an ictus; frequently the note it affects is ictic, but not necessarily so.

B. *On every long note :* the *first* note of a *pressus;* the note preceding an *oriscus* which is joined to it; *bivirgas*, *distrophas* and *tristrophas;* dotted (i. e., doubled) notes; also the note immediately before a *quilisma*, which may be considered as practically doubled although in the rhythmic editions it is not marked with any sign.

Sometimes the vertical episema signifies that two notes on the same degree of the scale are to be separated, as in the following example from the VIII-mode Tract melody :  which we must be careful not to transcribe thus : 

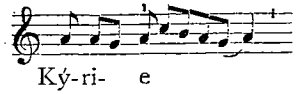
Moreover, when a pressus is formed by the juxtaposition of two neums with a note in common, the neums in question lose their identity, so to speak, and therefore *syncopation* must be avoided.

C. *Unless there is any indication to the contrary, on the first note of every neum.* The vertical episema causes numerous exceptions to this rule : the ordinary *salicus* is a case in point, and also a number of *climacus* which have a vertical episema on the second note.

These principles make analysis quite an easy matter as a rule. However we now propose to supplement them by an examination of some special cases.

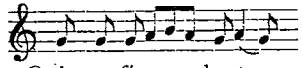
2. *Special Cases.*

A. First there is the case of a (simple) *isolated punctum* in front of a group (1). A punctum of this kind might seem to indicate an important ictus; but its very isolation might also indicate that the ictus falls on the subsequent note, the first of a group, rather in the manner of a *salicus*.

We find an example of an isolated punctum in front of a climacus in the Kyrie of Mass IV : 

Ký-ri- e

The episema warns us that the punctum is ictic, and from this we can conclude that before a climacus it is always so.

With regard to the typical intonation of VIII-mode Tracts such as : 

Qui confi- dunt

(1) Both on the same syllable, of course, and usually at the beginning of the syllable,

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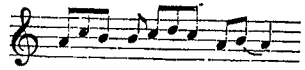
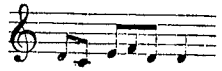
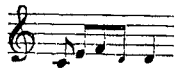
there are reasons connected with paleography for thinking that the punctum on the second syllable of *confidunt* has the ictus. Hence it is a case of a punctum in front of a torculus, not of a salicus flexus.

Similarly in the Introit *Ad te levavi* :



in spite of the indications given in the *Paroissien* (Desclée edition 800 c).

Moreover, in certain analogous cases the punctum is dotted (doubled): for example, the word *meus* at the beginning of the verse of the Gradual *Eripe me* (Passion Sunday). We may adopt a similar interpretation on the word *mundi* of the first Agnus, and on the word *nobis* of the second Agnus, in Mass XIII. On the other hand, in the Agnus of Mass II the cadence :  makes it more difficult to admit that the punctum on *mundi* in the first Agnus has the ictus :

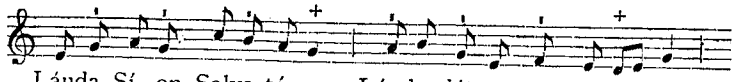


Finally, in the intonation of the Introit *Dignus est*, we place the ictus on the first note of *Agnus* (a classical intonation-formula of mode III), although in our *Graduel Paroissial* we adopted a different interpretation.

The matter is, therefore, somewhat complex. We think, however, that when there is no clear reason against it, the isolated punctum in front of a group should have the ictus and should even be slightly lengthened. In any case, whatever may be the personal opinion of the organist, he should follow the indications of the choirmaster; and if the books *in plainsong notation* (1) give a vertical episema, that settles the question (2).

B. *In syllabic passages* where no episemas are given we may feel some hesitation. Two principles now come into play :

(a) First, that of *counting back in two's*. The last note of the phrase, by reason of its very length, indicates an ictus; and since duple rhythm is simpler and therefore more natural, we count back from this last note and mark the alternate notes with the ictus. The same procedure is used if the position of an ictus is fixed in the middle of a phrase (because of a neum, for example) :



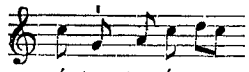
(1) The modern-notation edition should not be taken as a criterion in the cases under discussion.

(2) It is obvious, of course, that an isolated punctum in front of a long note (such, for instance, as a pressus or a distropha) surrenders the ictus to the long note.

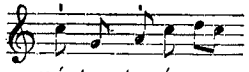
(The sign + denotes the certain ictus; the others are determined by counting back in two 's).

(b) The second principle is to follow the *natural verbal rhythm*, which means that in each word the ictus falls on the last syllable. In cases like *lauda ducem* (above), this principle runs counter to the previous one.

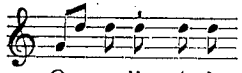
Similarly a case like :



could quite easily be rhythmed thus :



In the absence of any episema, therefore, different solutions are possible. In *recitation*, where the purely musical element tends to disappear (we are not speaking merely of psalmody), we always fall back on the second principle :



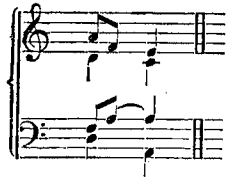
But, as we shall see, the accompanist must take care not to mark by any harmonic movement those ictus which are merely logical and of minor importance (1).

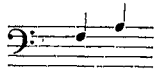
3. *Rules for Accompaniment.*

In principle, there ought to be no harmonic change except at an ictus. Furthermore, the accompaniment does not have to mark every ictus; far from it.

Nevertheless we are sometimes obliged to introduce a movement in one of the parts on a non-ictic note, occasionally even a complete change of chord. In such cases we must conform to the following rules :

(a) After the last note of a duple or triple group, the part that has made such a subsidiary movement must not be tied to the next note (which coincides with the ictus), for that would be *syncopation* :


Syncopation in the tenor.

Correction : 

(1) This question of rhythmic analysis belongs to the sphere of plainsong study in general and not specifically to that of accompaniment. We have therefore had to content ourselves with a brief summary.

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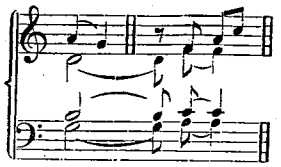
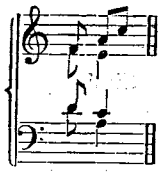
If there has been a complete change of chord, it is even more necessary that the subsequent ictus should be marked by another change of chord:



Scitóte in the Tract *Jubiláte.*

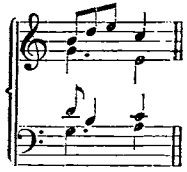
Correction :



(Syncopated harmony)

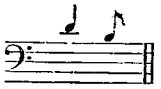
Notice that chords *on the up-beat* must always be very light.

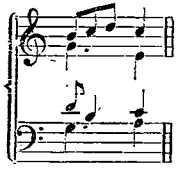
(b) After the second note of a triple group the movement must first continue on the third note and then again on the subsequent ictus, in accordance with the previous rule. But this procedure does not allow changes of chord (which would overload the accompaniment and serve no useful purpose), but only subsidiary movements in the parts:



Faulty tenor.

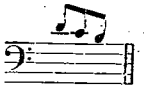
Correction :



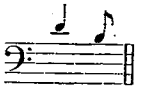


Bad.

Correction :



still better :



In short, any movement on the second note of a triple group should be avoided.

Among the mistakes that we have often had to correct, we mention the introduction of a fresh chord, without any precautions, *on up-beat beginnings* after a full or a half cadence, or after a mere phrase ending, or even after a mora-dot. Such up-beat beginnings ought as far as possible to be allowed for in the previous chord. Another common mistake is the tendency to place a new chord on the beginning of a new syllable, without noticing that the ictus sometimes falls on the second note (this happens especially in the case of a pressus). If our rhythmic analysis has been made correctly, such mistakes should not occur: but sometimes our fingers have habits which the pen copies. That is why we should begin by making an analysis, *before thinking about accompaniment.*

III. The Greater Rhythm.

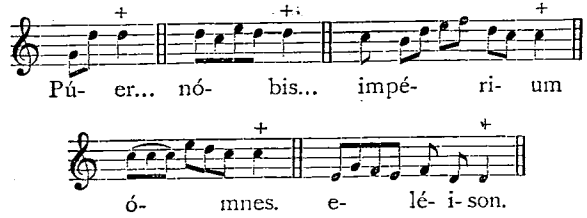
If it is a gross error for singers to study only the elementary rhythm, it is equally regrettable if the accompanist does not study the greater rhythm.

For, just as in the sphere of elementary rhythm the chords are placed on the ictus or *thesis* and not on the *arsis*, so in the same way they should mark the *thetic* ictus and especially the more thetic among them, viz., those of the cadences. Even in modern music harmony performs this function, except in the case of syncopation (which plainsong does not admit).

The study of the greater rhythm teaches us to distinguish a regular hierarchy of importance among the component members of a melody: sentences, clauses, phrases, etc. Although each of these elements does not enjoy complete autonomy, yet they each constitute a homogeneous entity. What matters most is the conclusion or *cadence.* We use this word in a very broad sense, inasmuch as we do not reserve it merely for complete cadences or musical *full-stops;* for greater simplicity, we also use the word to denote the end of the smallest sub-section or phrase, without bothering about the inaccuracy of the term. Moreover we shall see that our rhythmic rules for accompaniment can be reduced practically to rules for cadences; we shall study first their various types, then their relative importance, and finally we shall deduce our rules for accompaniment.

1. *The Different Kinds of Cadence.*

A. *Simple cadences* are those in which the thesis coincides with the final ictus. Of course, every little phrase ends on its last note; but certain cadences (which we call *compound cadences*) clearly begin their thesis on a previous ictus; the term "compound cadence" enables us to have a clearer understanding of the reason for this important distinction. We do not go so far as to say that simple cadences are more frequent, for that might perhaps be incorrect; but they are easier to determine:



(The sign + indicates the simple cadences. Do not forget the broad sense we give the term "cadence").

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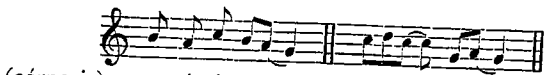
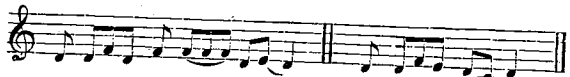
B. *Compound cadences* begin their thesis before the final ictus, in such a way that the cadence-formula consists of more than one compound beat (hence the expression).

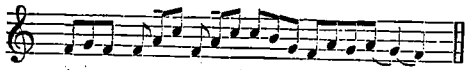
(a) First of all there are the cadences in which the *final syllable* is adorned by a few notes only :





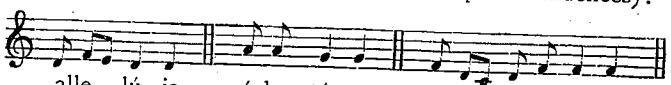
(this happens very frequently)

or by a veritable " vocalise " :



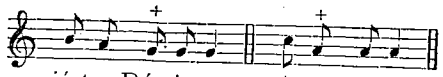
(this again happens very frequently); but as the vocalise develops, the movement is taken up again, and the end is brought about by a new cadence-formula.

(b) Then there is the case where we have *two doubled punctums on the final note.* Here it is the power of the modal tonic that establishes the cadence (that is why it is not the same thing when the first punctum is not on the final : the cadence of *confitemur* in the *Te Deum* and others of the same type are not to be regarded as compound cadences) :



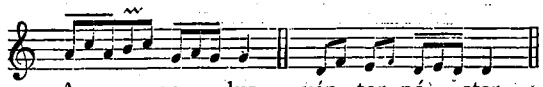
(These are redundant spondaic cadences; they occur frequently in Antiphon melodies, and are compound cadences).

Similar in type are those cadences in which a dactylic word has its last three syllables (including the accent) on the final note :



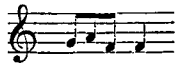
(1) The Monastic Antiphonar has adopted a much better reading for these cadences We naturally quote from the Vatican text.

(c) A further instance is when the cadence is composed of *a torculus and a punctum* (very often the torculus has a horizontal episema), the first note of the torculus being on the final. This is, so to speak, an elaborated version of the preceding formula :

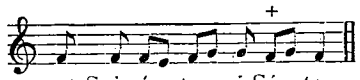


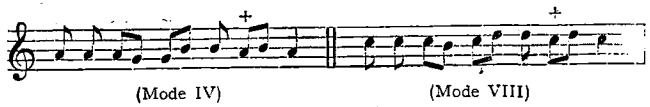
But here the verbal accent does not necessarily fulfil the same function (cf. *Angelus*).

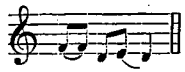
Do not forget that the first note of the torculus must be on the final, otherwise it is not a compound cadence. The following is a simple cadence :

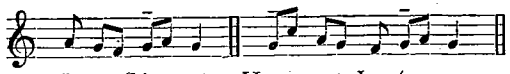


(d) If, instead of a torculus, there is a *podatus* with its first note on the final, we generally interpret it as a simple cadence. But in the Introit psalmody of modes II, IV and VIII, and also in the solemn tones of the *Magnificat* for the same modes, the formula of the mediant is to be regarded as a compound cadence :





In formulas like :  we prefer to keep the principal ictus on the last note, except when the final syllable comes on the first D. But if the podatus is perceptibly lengthened, then it can be regarded as a compound cadence with the principal ictus on the first D. This sort of thing happens in the intonations of some VIII-mode Antiphons :



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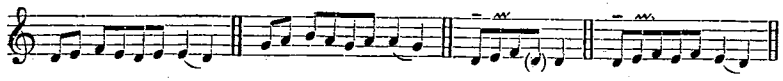
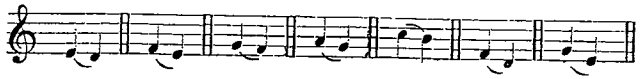
(e) Certain formulas, with or without a quilisma, which seem to be embellishments of the final tonic, are similar in character and must also be regarded as compound cadences :



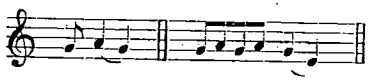
(f) Finally, there is the case of the *clivis* or *podatus*, where both notes are doubled; the relationship between the two notes is the same as in a simple neum, and therefore the first note has the principal ictus. The case of the clivis is extremely frequent in all the modes :



The case of the podatus is found in the Amen formula, in the mediants of the Introit psalmody for modes I and VII, and in many secondary cadences.

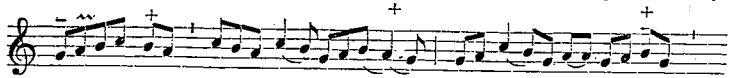
Notice in (e) above, that a longer compound cadence may often end with a doubled clivis, so that the smaller compound cadence is part of a larger one.

Sometimes a *pressus* fulfils a similar function and is analysed in the same manner :

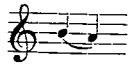


C. *Post-ictic or feminine cadences properly so-called* are not really cadences : they mark the end of a phrase which does not finish with an ictus, the last note being the second or third of a compound beat. This very often happens before a quarter or a half bar-line :

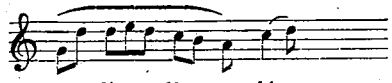
(Second Sunday after Easter.)



Alle- lú- ia. *

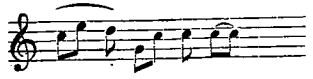
Such cadences are easy to spot (at least, so long as the bar-lines remain faithful to their purpose). To make such cadences really conclusive it would be necessary to double both notes of the clivis :  which would then form a compound cadence : a cadence so formed is merely an enlarged post-ictic cadence; hence we could call it a *feminine cadence.* Nevertheless, for the sake of clarity, we prefer to maintain the distinction between the terms.

Moreover, feminine phrase-endings are not always indicated by a quarter-bar : thus we naturally adopt the following phrasing :



et ff- li- us dá- tus est

and :



má-gni con- sí- li- i

Word-endings often occur in this way, although that does not mean that they should be lengthened or that we should take a breath. It is not sufficient, therefore, to determine where the ictus falls; we must also determine how the melody is to be phrased.

2. *The Relative Importance of Cadences.*

A. *In principle*, a *full bar-line* marks a *complete cadence*, a cadence in the full sense of the word. But, in practice, even if we observe the silent beat which the full-bar normally implies, sometimes the sense is merely interrupted and the melodic formula has none of the characteristics of a complete cadence.

B. A *half-bar* indicates a *half-cadence*, the end of a mere clause, and the sense is merely interrupted, even if the melodic formula is that of a traditional cadence.

C. A *quarter-bar* merely indicates the end of a phrase (with or without *mora vocis*) or the end of a melodic group, and it scarcely makes any interruption in the musical sense.

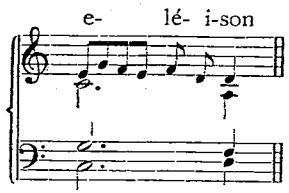
The above definitions will be given a more precise practical meaning in our rules for accompaniment.

3. *Rules for Accompaniment.*

A. *Position of the Chords.*

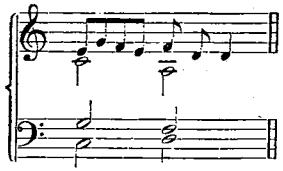
(a) *Simple cadences.* There must be a chordal change on the final punctum of all simple cadences, irrespective of their relative importance (full cadence, half-cadence, or mere phrase-ending). If any previous ictus is marked and not the last, the accompaniment is *syncopated.*

We must therefore have :



(Kyrie IV.)

and not :



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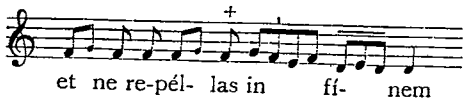
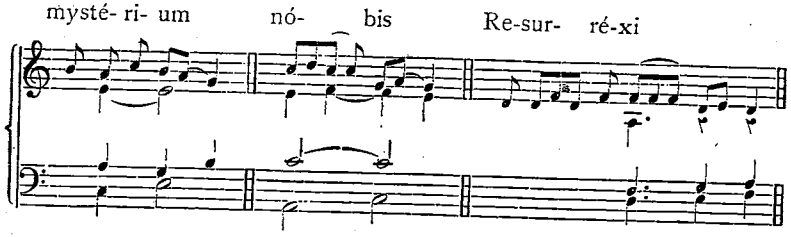
The part played in such cases by unessential notes (changing-notes, anticipations, etc.) is easily seen. It is also necessary to keep an eye on the endings of words or groups of words, which have no *mora vocis;* for if these cannot be marked in the accompaniment, then we must not mark any less important ictus. Thus in the Introit *Exsurge*, if any change of chord is made, it should be made on the final syllable of *repéllas* (which is ictic) rather than on the accented syllable of the word:



It is in this way that the principal chords reach from one cadence to another (in the sense in which we use the word "cadence").

(b) *Compound cadences.* The essential rule is that there must be a new chord *on the first ictus of the formula;* after that, the following principles are to be obeyed:

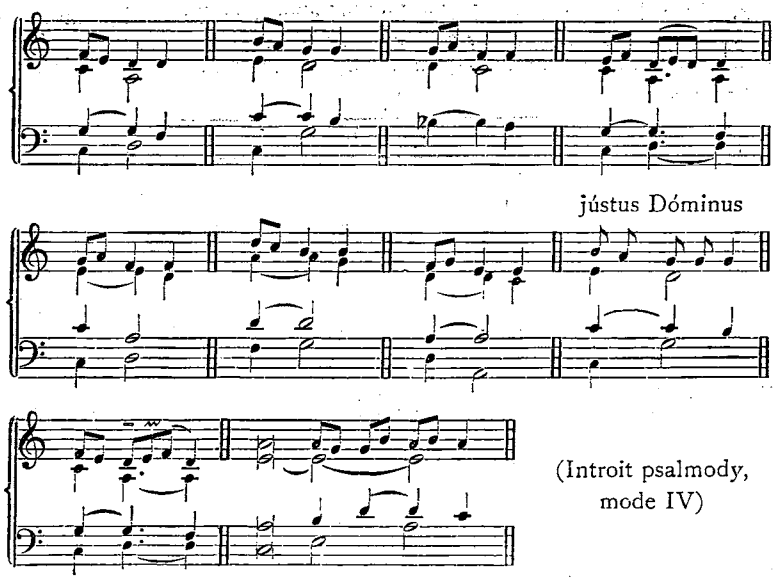
1. When the cadence is determined by the position of the last syllable, only one chord is possible when the formula is short; a subsidiary movement in one of the parts (change of position, resolution of a suspension) is sufficient to mark the final ictus:



In this last case, we move from a fundamental position to a first inversion by means of passing-notes.

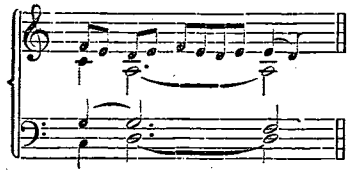
But if the vocalise is somewhat extended, the demands of the melody must be respected and chords placed in accordance with our general principles: but first we must mark the beginning of the final syllable. In certain cases a bass pedal, sustained until the end of the formula (we shall give examples later), is an excellent procedure and exactly suits the rhythm of the melody.

2. When the cadence is formed by two doubled punctums on the final, or by a torculus and a punctum (occasionally by a podatus and a punctum), or by a quilisma-formula of similar type, there should be a suspension on the first ictus with its resolution on the last note:

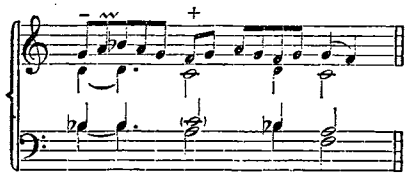


(Introit psalmody, mode IV)

3. Certain rather longer formulas of the same kind can be treated in the same way:



In some cases it is possible to have several chords, provided, of course, that the first ictus of the formula is duly marked:



But in this instance the final chord (F major) could come at + with a suspension in the tenor, as in the previous example.

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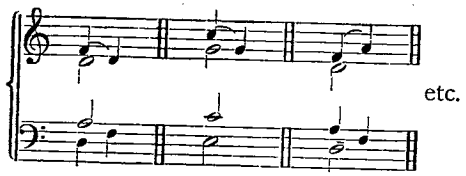
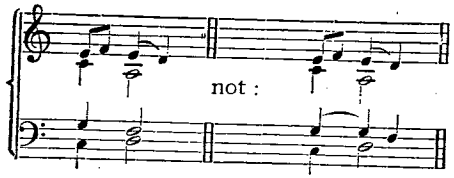
4. In cadences composed of a doubled clivis or a doubled podatus (or of a pressus instead of the first note of a doubled clivis), only one chord should be used. If the melody moves by leap, the chord should include both notes:



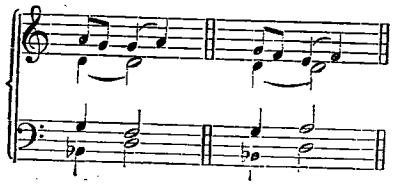
If the melody moves by step, the first note should be treated as an appoggiatura of the second. In the case of a clivis, it is a mistake to accompany the resolution of the appoggiatura by the resolution of a suspension in another part (the tenor, for example).

We should therefore write:

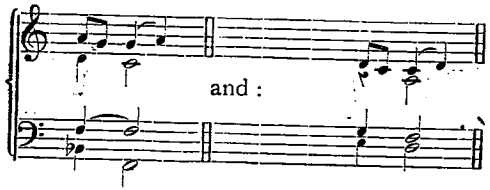


The parallel motion between melody and tenor only makes the rhythm heavy.

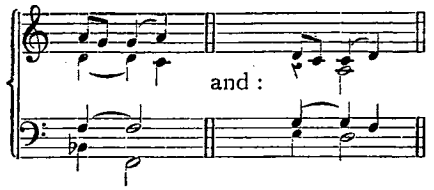
Similarly in the case of a podatus:



Nevertheless, instead of:



it is better to write:

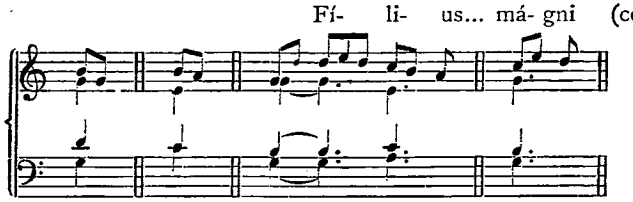


because of the contrary motion (melody and alto in one case, melody and tenor in the other). In the second case the harsh effect of the seventh resolving on the octave is extremely bald; the movement in the tenor is a welcome palliative.

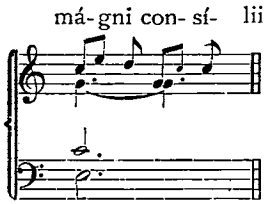
Notice that some of the compound-cadence formulas quoted above end with a doubled clivis, and thus, within their own framework, establish new compound cadences at their conclusion.

(c) *Feminine cadences properly so-called.* The principle that governs the accompaniment of post-ictic cadences is analogous to that for compound cadences: the natural place for the chord is on the ictus, but it must allow for the final note of the phrase, which is not to be treated as an unessential note.

When the melody moves by leap, the chord should include both notes; but if it moves by step, the first note should be treated as an appoggiatura of the second:



If it is a triple group, as the last two examples show, the chord should always fit the last note of the group. For the word *magni*, an accompaniment such as:



in which the end of the word is treated as an unessential note, ill accords with the melodic sense. It is therefore necessary to take particular care of every little phrase that ends on the up-beat of the elementary rhythm and possesses any degree of autonomy.

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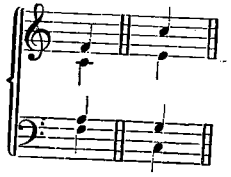
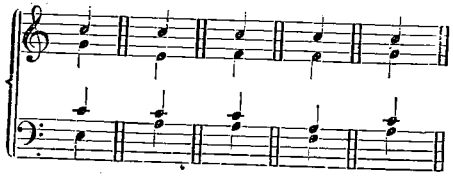
B. *Choice of Chords.*

We have already spoken of the choice of chords; but now we have to consider the question from another point of view. For the chord at a cadence should have the same character as the cadence itself.

A fundamental chord, with the melody doubling the bass, on a *long* note (1), we call a *chord of rest:*

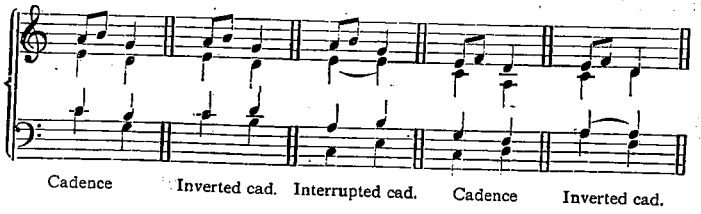


A chord is no longer perfectly at rest if the melody is a third or a fifth or a sixth above the bass; if in the supporting accompaniment there is an unessential note (e. g., a suspension or a passing-note) or a seventh or a ninth, etc., then it is definitely *a chord of movement.* Here are some chords of movement with C in the melody:



(a) At full cadences (final cadences and those before a full bar-line) we must therefore adopt, on principle, the cadence-formulas which are to be given later for each of the modes. Except in the case of the deuterus (modes III and IV) there is always a chord of absolute rest at the end.

(b) At a half-bar or a quarter-bar, we must avoid using a chord of rest. Instead we use either an inverted (2) or an interrupted cadence:



(1) A chord of this kind on a *short* note in the melody (i. e., a quaver in our system of transcription) is no longer a chord of rest.

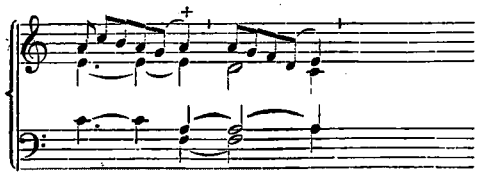
(2) The expression "inverted cadence" is not customary in English text-books; but its meaning is obvious, viz., that the final chord is an inversion. [Translator].

But in actual fact, the half- and quarter-bars often indicate neither a cadence nor a half-cadence but a mere pause; in such cases there is an even stronger reason for avoiding a chord of rest.

Yet this rule is far from absolute: for *minor* chords, and sometimes even major chords (on the tonics of modes VII and VIII), although in the position of rest, do not seem to arrest the movement; the important thing is to study the melodic and harmonic context, and to make sure that our accompaniment does not impose an unsuitable cadence. Nevertheless, the general principle should be maintained.

It must be obeyed strictly for tritus cadences (modes V and VI). Thus cadences on F should not be accompanied by the fundamental chord of F except when they are very clear cases of the tritus; in our opinion it is nearly always better — *even before a full-bar* — to have an interrupted or an inverted cadence, except for those tritus melodies in which the tonic is consistently predominant. As far as cadences are concerned, the fundamental chord of F should therefore be kept for the final cadence of tritus melodies. Elsewhere a cadence on F seldom has a definite character from the melodic point of view. The same may be said of cadences on the C above in the neighbourhood of B-natural.

(c) In any case, the last *melody* note of a phrase should never be treated as an unessential note or as a seventh or a ninth, etc. But if at the end of a phrase we introduce a seventh or an unessential note *in the accompaniment*, this amounts to a suppression of the quarter-bar and establishes a close union with what follows. Such a procedure should not be employed save with thorough knowledge:



(Kyrie of Mass IV).

These principles will be clarified by our study of the plainsong repertory (Part II).

In compound cadences, the position of the principal chord and the use of a suspension enable us to mark both the thesis of the melody and the "rebound" which intervenes before its final conclusion.

C. *In the middle of phrases*, when the melody is in full movement, chords of rest should be systematically avoided: we must therefore keep an eye on *long notes*, pressus, oriscus, dotted notes (we have already examined those at the ends of phrases), notes before quilismas, etc.

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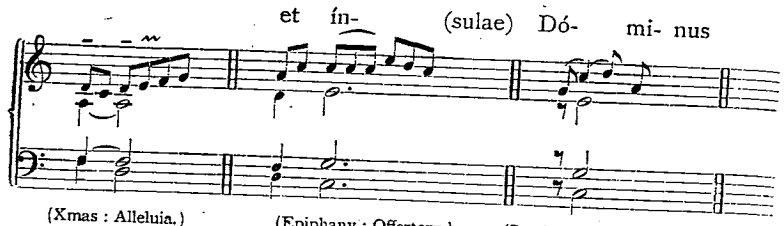
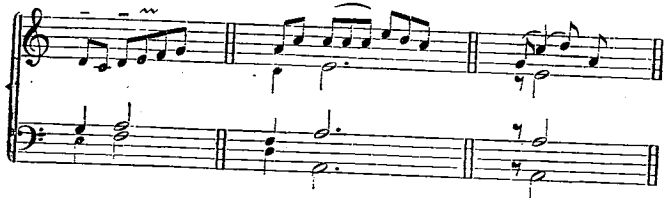
We should not write :

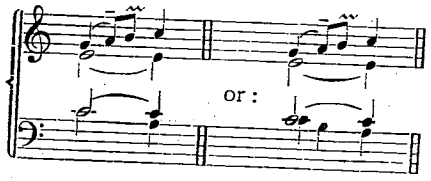


but :



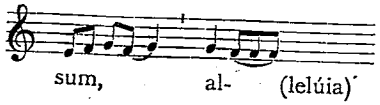
The same applies to the ictic note of a salicus, and in general to any note marked by a horizontal episema.

Such long notes, which are often expressive, are best treated, not necessarily with a complete change of chord, but at least with some movement in the accompaniment (a change of position, a passing-note, etc.). When there are two long notes in succession (before a quilisma, for instance), in principle it is the first that should be marked :



Notice that the second note may also be marked, but in a subsidiary way.

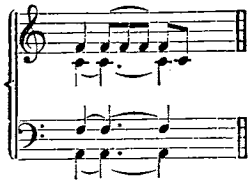
In some cases, however, the second long note seems to have a more important ictus than the first, especially when the first note is itself a repetition of a previous note :



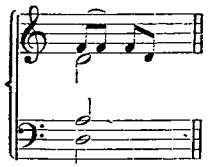
In this instance (from the Introit *Resurrexi*) a chord would come better on the F of *alleluia* than on the previous G.

We must not imagine that there is an obligation to mark every *repercussion*. In any case it is wrong to make an emphatic change of chord when the melody maintains the same note.

Thus the intonation of the Gradual *Exsurge* (Third Sunday of Lent) is quite well accompanied as follows :



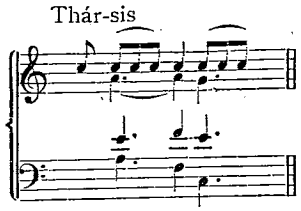
Nevertheless we could begin with the chord of D minor and put the first inversion of F major (A in the bass) on the last group, the two chords being so closely akin. In any case, D minor is sufficient at the end of the intonation :



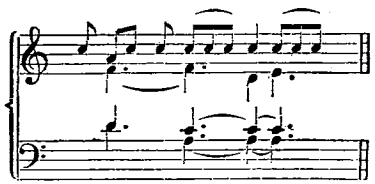
The subsequent tristropha requires no further change, but might well have the first inversion of F (it is a question of the general harmonic context of the whole intonation).

By way of compensation, here is a downright bad example (taken from the Epiphany Offertory) with three distinct chords for the same melody-note :

Thár-sis



If we wish to mark the repercussions, it should be done in the following way :



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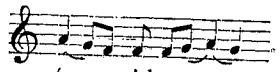
Having thus settled the question of cadences and that of long notes in the middle of phrases, we can easily see that changes of chord at the ends of phrases and subsections of the melody are enough to provide a rhythmic ground-plan for our accompaniment. But the length of some phrases, the very nature of the melodic intervals, and certain modal considerations often stand in the way of such simplicity. We have already said that long notes of movement do not necessarily demand a chordal change but may quite well have one: there already we have one land-mark; the initial note of every vocalise (on one syllable) provides another (especially if the vocalise is long), although here again a chordal change is not obligatory. Nevertheless, if there has been no chordal change at the beginning of such a syllable, a new chord introduced later during the same vocalise must be a chord *of transition* leading to a further change at a more important point (such as a cadence, or the beginning of another ornate syllable); for if our chords straddle the syllables, the result is a kind of syncopation. In the same way a chord on the up-beat of the elementary rhythm is possible, even if the preceding ictus has not been marked; but then we must mark the subsequent ictus. The analogy is very striking.

Finally, it very often happens that a syllable (even the final syllable of a phrase) has a pressus on its second compound beat:



(Third Sunday of Lent : Tract)

We see at once that the first compound beat is a mere preparation, and we reserve our principal chord for the pressus, which establishes a compound cadence. But it is possible to have a chordal change on the final syllable and then again on the pressus.

Before thinking merely about a succession of chords, the accompanist ought therefore to proceed as follows:

(i) Determine *with the greatest care* the elementary rhythm (duple and triple groups).

(ii) Mark all the endings of phrases or melodic groups.

(iii) Determine their nature (simple or compound cadences).

(iv) Determine their rhythmic importance (full cadences, half-cadences, etc.).

(v) Look in the middle of phrases for those ictus which should be marked for preference, without forgetting that a long (or a lengthened) note must have a chord *of movement*.

All this the student should record *in writing*, by adding signs to the modern-notation transcription he has already made.

He will then proceed with modal analysis.

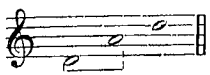
Finally he will write an accompaniment according to the method which we shall indicate in due course. Any beginner who at this stage attempts to write an accompaniment, imagining that he has already assimilated our rhythmic and modal principles, is certain to commit gross errors.

CHAPTER III.

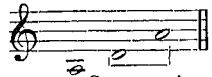
MODALITY.

I. FUNDAMENTALS.

In theory there are eight modes (1) in plainsong; but the only theoretical difference between the authentic modes (I, III, V, VII) and the corresponding plagal modes (II, IV, VI, VIII) is their compass, which is high for the authentic and low for the plagal. For example, the compass for mode I is:

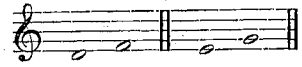

Common 5th.

and for mode II:

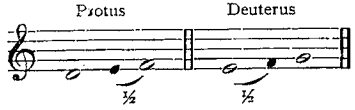

Common 5th.

The tonic (in this case, D) is the same for both. Hence we may say that in plainsong there are *four* modes, called (in the ancient terminology) *protus* (I and II), *deuterus* (III and IV), *tritus* (V and VI), and *tetrardus* (VII and VIII) (2). Yet when necessary we retain the numerical designations.

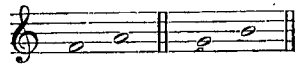
The protus and the deuterus are both *minor* modes, in the sense that in both cases the third above the tonic is minor:



But in the protus the semi-tone is between the second and third degrees, while in the deuterus it is between the first and the second:



The tritus and the tetrardus are both *major* modes, in the sense that the third above the tonic is major in both:



(1) It is necessary to use the word *mode* and not *key* (as in modern music). The protus on D and the protus on A are in the same mode but not in the same key; on the other hand, the protus on A and the deuterus on A are not in the same mode but have the same tonic.

(2) Similarly, in modern music, a melody in G, for example, would extend from G to its upper octave if written for a tenor, but its compass would be from D to its octave if written for a baritone — the tonic remaining the same in both cases. There is a difference in character, but the mode is the same.

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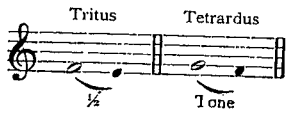
But the tritus has a semi-tone below the tonic, the tetrardus a full tone:



These are the resemblances and the differences between the various plainsong modes. If every melody were written in an unalterable scale of seven notes, under the predominant influence of an equally unalterable tonic, the study of modality would present no difficulty. But this is not the case.

Here, in brief, are some points for our guidance in this matter:

1. In many cases, if we compare the formula of the final cadence with the intonation and the various secondary cadences that occur during the course of a melody (and even the melodic turn of the phrases), we soon perceive that there is no modal unity. Without letting him see either the number of the mode indicated in the book or the final cadence, ask someone to say what mode a melody is in; often you will witness some hesitation, often you will receive a wrong answer. This phenomenon was recognized long ago: "*In fine judicabis*" says Guy of Arezzo. *The mode of a melody is preeminently that of its final cadence.*

Of course there are exceptions; melodies attributed to a particular mode may very likely (but not necessarily) have certain habits in common (which we shall examine in Part II). Nevertheless the point is important, and it would be a grave error not to recognize the many *modulations* which plainsong employs: merely modal modulations, determined by a cadence of a different type from that of the mode indicated; tonic modulations, established by the transposition onto other degrees of the scale of the normal formulas; modulations revealing a latent chromaticism, which are caused by the displacement of the semi-tone (for B is a movable note and can be written either natural or flat).

Already it is easy to see that the fixity, the rigidity of the modes is merely theoretical.

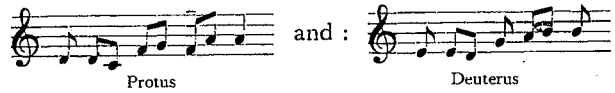
2. The major part of the plainsong repertory was composed many centuries before the evolution of an exact notation on lines. Now the scribes did not always write the same melodies on the same tonic, sometimes not even in the same mode, although there is often perfect agreement between them because the intervals of the melody are identical. One melody (in the protus) is here written on D, there on A, and even on G (with B-flat throughout) (1). Another is written here on G (tetrardus) and there on F (tritus), for the note below the tonic is not used (2), etc., etc. We must therefore conclude that the scribes were not necessarily mere copyists, but rather *witnesses* of an oral tradition, and that they noted *the intervals* with the (often imperfect) means at their

(1) The Hymn *O gloriosa Domina.*
(2) The Alleluia *Benedictus es* (or *Tanto tempore*, or *Crastina die*, etc.).

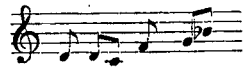
disposal. Hence we must realize that the notation is not an infallible criterion and that we have no right to understand *a priori* any note which the melody does not actually employ. A melody written on F with B-flat throughout does not necessarily imply the note E if it does not actually use it; nor does a melody written on G necessarily imply F if it does not actually use it. In both of these instances the mode remains indefinite: tritus or tetrardus.

3. What is true of whole melodies is also true of certain formulas, especially those which are used in intonations or in cadences.

A. There is *ambiguity between the protus and the deuterus* in intonation-formulas like:



We quote the deuterus according to the Monastic Antiphonar (1). In the Vatican Edition the B is raised to C. But this again has its counterpart in the protus:



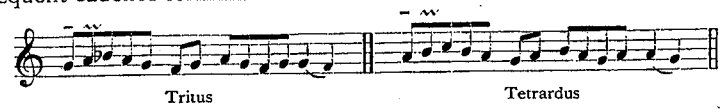
Lí-be- ra me... (de viis inférni).

In all these cases, the note above the tonic (which would determine the mode) is not expressed.

In the Gloria of Mass XIV (which is deuterus), the passage between *Gratias* and *Filius Patris* contains a number of formulas which are very characteristic of the protus — as though E were a protus tonic (F being absent).

Ambiguity of this kind gives rise to modulations from one mode to another, as in the Communion *Beatus servus* and in IV-mode antiphons on A. But when the semi-tone changes, the only possibility is to write the melody on A (deuterus with B-flat, protus with B-natural).

B. There is *ambiguity between the tritus and the tetrardus* in such frequent cadence-formulas as:



In the Gradual *Clamaverunt* we find a remarkable instance. The melody is clearly in mode VII, yet its final cadence (on G) is a formula which is proper to mode V and in its normal position (on F) always uses B-natural; so that, by transposition, the C on the second syllable of

(1) Compare the Antiphons *Qui vult venire post me* and *Quando natus es.*

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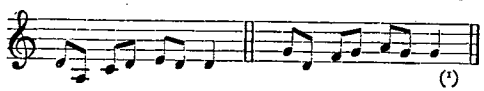
salvabit ought to be C-sharp — which the traditional notation is unable to represent.

C. There is even *ambiguity between the protus and the tetrardus*, i. e., between major and minor, in intonations like:


(*)

The Tract *Qui seminant* (mode VIII) is thus able, by means of B-flat, to have on G an intonation which is definitely in mode II, and which is found in exactly the same form, but on D, in the Tract *Tu es vas* for example. Similarly, the Responsory *Amo Christum* (Matins of St Agnes) begins in G minor (protus) and ends in G major (tetrardus).

These, then, are some of the reasons why we must not assume what the melody does not express and why we must regard the notation, not as a criterion, but merely as a means.

4. Even if we confine ourselves to the text of the Vatican Edition, certain other points are to be noted:

A. If we take a melody which is attributed to the *protus* (on D) and examine the part played in it by B-natural, we shall see that this note may be used as a mere passing-note (e. g., the beginning of Sanctus II), but that very often, if it is in any way emphasized by the melody, it establishes on A (a fifth above the tonic) protus formulas which are the exact equivalent of those we meet on D. This modulating tendency is so extremely clear that we must regard B-natural as, in fact, *a modulating note*.

This can also happen in the lower register of the plagal protus (e. g., the end of the intonation of the Antiphon *Exsurge*).

It does not in the least follow that B-flat is the normal note. For just as B-natural may modulate to the fifth, B-flat tends to modulate to the fourth. The protus on G is obvious in the Responsory *Amo Christum*. But when D is well established as tonic, the modulation to the fourth can hardly be admitted as absolute. And so cases of B-flat as a mere passing-note, without any appreciable modulating effect, are plentiful (e. g., Kyrie XI). But when the melody has no E in the immediate context, there is a modal vagueness analogous to that we have already mentioned in certain intonation-formulas. If we read the intonation of Kyrie *Clemens Rector* a degree higher than it is written, we have no temptation to understand F-sharp; therefore we should not understand E-natural when we read it at its original pitch. This is the case in many formulas that avoid the note E.

In the plagal mode (mode II) we can see a very definite modulation (in the lower register) to G minor at the word *concilium* in the Responsory *Collegerunt*. In short, apart from the restrictions given above, we have to admit that B-flat tends to modulate.

(*) These are schematic formulas.

B. In the *deuterus*, when it is a question of the lower mode (IV) we observe the same phenomena as in the protus: the influence of D or of F, established as tonics in the course of the melody, is often very appreciable; but as soon as B-natural intervenes, the modal dominant (A) figures as a new protus tonic. B-flat, which by the way is often incorrect, plays the same rôle as in the protus.

In mode III — which, so to speak, does not utilise B-flat, at least not in the authentic text — it will be noticed that if the melody begins in the lower register (which is frequently the case), then B-natural modulates as in all the cases we have mentioned. If the melody begins in the upper register, then a descent to the lower D (e. g., Kyrie II) causes a genuine modulation, the very reverse of the preceding. The same thing occurs in mode VIII, as we shall see.

C. The *tritus*, when it uses B-flat in its cadence-formula, is very often indefinite (tritus-tetrardus) as we have already seen, because it avoids the semi-tone F-E in its cadence. But B-natural causes a very clear modulation to A (as protus tonic) or to C. etc.: the verses of V-mode Graduals show this plainly.

D. Finally, the *tetrardus*, in which B-flat hardly ever occurs (except in obvious modulations, e. g., the Antiphon *Urbs fortitudinis*, the Responsory *Amo Christum*, the Tract *Qui seminant*), can only be established with the help of B-natural. If there is no F — and this is not a rare exception — then the cadence is indefinite. But it must be admitted that of itself F (in conjunction with the tonic G) has no modulating tendency. It is quite different when it occurs in conjunction with lower notes in mode VIII or when it comes in the upper register of mode VII.

In fact, in the plagal mode (VIII) every descent to the lower register gives the note D the importance of a temporary tonic. Once again notice the indefinite character (already mentioned) of certain intonations (of the type *Ad te levavi*) which are also common in mode II. With regard to the authentic mode (VII), even a superficial examination of the Alleluias *Exivi a Patre*, *Magnus Dominus*, and many others, and also of Gloria IX, suffices to show the tendency of the upper F to establish a sort of protus on D; of course the principal tonality is not forgotten, but at the same time the modulation is clear. A few very rare cases bring together in close proximity the two notes of the diminished fifth B-F (the Antiphon *Exaudi*, for Ash Wednesday; the Gradual *Clamaverunt*, at the beginning of the verse); here again, the modulating tendency of F is no less clear; and if the accompaniment were to combine the two notes in a sort of dominant seventh, the incongruity would be evident to the least skilled ear.

From all that has been said, it is clear that a definition of the *modes*, even an exact one, does not explain the structure of the *melodies*. And when we speak of "protus, deuterus, etc.," instead of "melodies attributed to the protus, or to the deuterus, etc., because of the final cadence," we do so only for the sake of brevity.

Our conclusion is that the truly homogeneous scale of plainsong is a *hexachord* (six notes) and not a *heptachord* (seven notes). The seventh

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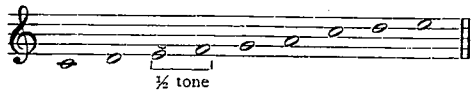
note can occur without causing a modulation : this is true of many B-flats, and also of F in a tetrardus cadence; but it is rare with regard to B-naturals in those modes in which B-natural does not affect the cadence. In the majority of cases, apart from the restrictions which we have already made and which we shall presently define more precisely, the seventh note effects a modulation.

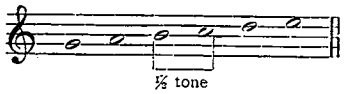
In practice, there are *three* hexachords in plainsong :

(i) the *natural* hexachord, in which B does not occur, whether natural or flat :

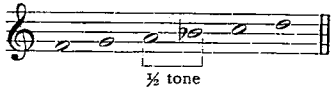


etc.

(ii) the hexachord of *B-natural*, which is an exact transposition a fifth higher :

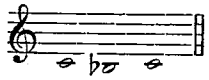


(iii) the hexachord of *B-flat*, which is a transposition a fourth higher :



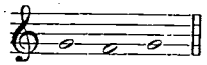
Notice that each hexachord has only one semi-tone in its scale.

If we begin in the natural hexachord, B-natural modulates to the hexachord of B-natural; B-flat, especially if it is not associated with lower notes (in particular the semi-tone A—B-flat), does not modulate so easily :



but in many cases it modulates to the hexachord of B-flat.

If we begin in the hexachord of B-natural, there is no modulation in



but the semi-tone E—F, the third D—F, etc., modulate to the natural hexachord.

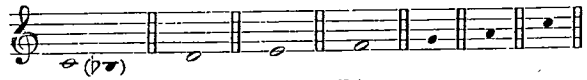
If we begin in the hexachord of B-flat, E modulates to the natural hexachord.

When we pass from the hexachord of B-flat to that of B-natural (and *vice versa*), the shifting of the semi-tone A—B-flat to B-natural—C (and *vice versa*) determines the quasi-chromatic modulation which we have

already mentioned : thus with B-natural A is a protus tonic, with B-flat it is a deuterus; with B-natural G is a tetrardus tonic, with B-flat it is a protus; with B-flat C is a tetrardus tonic, with B-natural it is a tritus (or if B is absent, an indefinite tonic).

In fact, each hexachord forms a sort of autonomous tonality and contains the essential elements of each of the four plainsong modes :

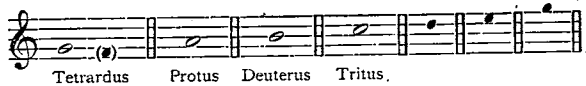
Natural Hexachord :



etc.

Tetrardus (indefinite if the lower note is not expressed) (1) — Protus — Deuterus — Tritus

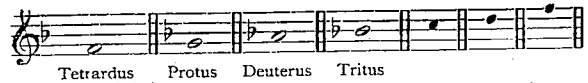
Hexachord of B-natural :



etc.

Tetrardus (sometimes indefinite) — Protus — Deuterus — Tritus.

Hexachord of B-flat :



etc.

Tetrardus (always indefinite) — Protus — Deuterus — Tritus

To borrow the terminology of modern music, we might say that the four modes included in each hexachord are "relative" to one another (just as A minor is the relative minor of C major).

From the above table it will be seen that C may be the tonic of a tetrardus, or of a tritus, or of an indefinite mode; F may be the tonic of a tritus or of an indefinite mode; G, the tonic of a tetrardus or of a protus; A, of a protus or of a deuterus. D and E may even be the tonics of an indefinite protus-deuterus when the degree above the tonic is not expressed.

In reading this table, do not (apart from the cases indicated) introduce B into the natural hexachord, nor F into the hexachord of B-natural, nor E into the hexachord of B-flat.

This conception of the three hexachords already existed in the Middle Ages, as we can see from their practice of changing the names of notes in solmization : thus they used to call the semi-tone (wherever it occurred) *mi—fa* (= E—F), which led to the transposition of the other two hexachords into the natural hexachord (2).

It will be a valuable guide to us in the modal analysis of plainsong.

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(1) If B-natural occurs, we are no longer in the natural hexachord, but in the hexachord of B-natural.

(2) Since the present book is concerned merely with accompaniment, we have given only a brief summary of the principles of plainsong modality. For fuller treatment and references the reader should consult the author's monograph *La Modalité Grégorienne*, and especially his study of *Les Modulations dans la Composition du Chant Grégorien*.

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II. RULES FOR MODAL ANALYSIS.

Since the mode to which a melody is attributed is merely that of its final cadence, there is no good reason for retaining the numerical indication at the beginning of every piece in the plainsong books. For we have to note carefully the modal nature of *all* the cadences and of the phrases that lead up to them, and that is possible only when the hexachord is determined.

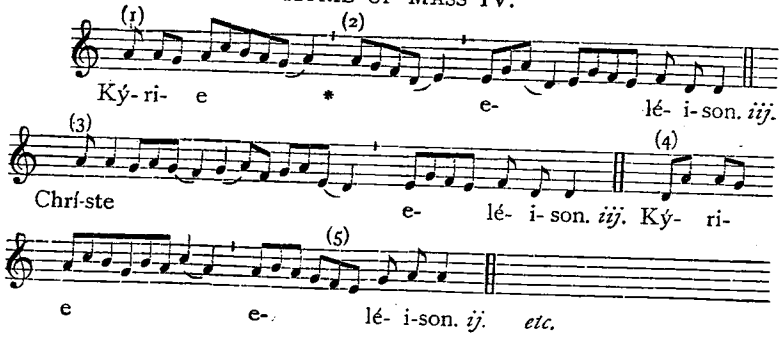
Now each hexachord is determined mainly by the semi-tone which is proper to it; a semi-tone which is foreign to the established hexachord (or sometimes the minor third which implies the semi-tone; or simply the note B-natural which automatically introduces the hexachord of B-natural; or the note E which in the same way leads out of the hexachord of B-flat) always tends to modulate.

Moreover, when the hexachord of B-natural is established, a cadence or half-cadence on F (which in this hexachord can only be a note *of movement*) modulates to the natural hexachord. Similarly, when the natural hexachord is established, a cadence on B-flat implies the new hexachord of B-flat. The first case is more frequent than the second, but there are a certain number of cadences on the lower B-flat (e. g., the Responsory *Subvenite*). In transcribing the melodies, therefore, the interplay of the three hexachords will be indicated by means of the signs *N*, ♮ and ♭; and brackets will be added to show, where necessary, the transitional (or neutral) passages bewteen two hexachords. This will be done according to the strict principles, without any thought of accompaniment; in the subsequent practical study of the melodies, we shall quite naturally correct any part of this analysis which has been too rigid.

The initial hexachord will be determined as soon as possible and every subsequent change established according to the principles we have given.

The following examples will clarify our ideas better than any further explanations.

KYRIE OF MASS IV.



1) Hexachord of B-natural, determined by B-natural and a half-cadence in the protus on A.

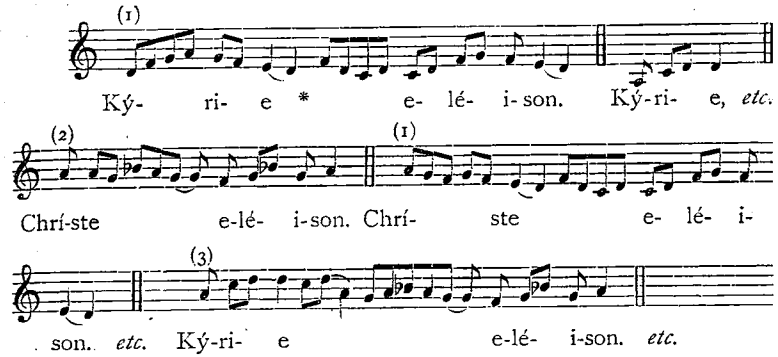
2) Natural hexachord, determined by F-D-E and the protus cadence on D.

3) The whole of the Christe is in the natural hexachord.

4) We begin in the natural hexachord, but the B-natural introduces the hexachord of B-natural (A being a protus tonic).

5) The semi-tone E-F, which is merely transitional, does not modulate.

KYRIE OF MASS IX.

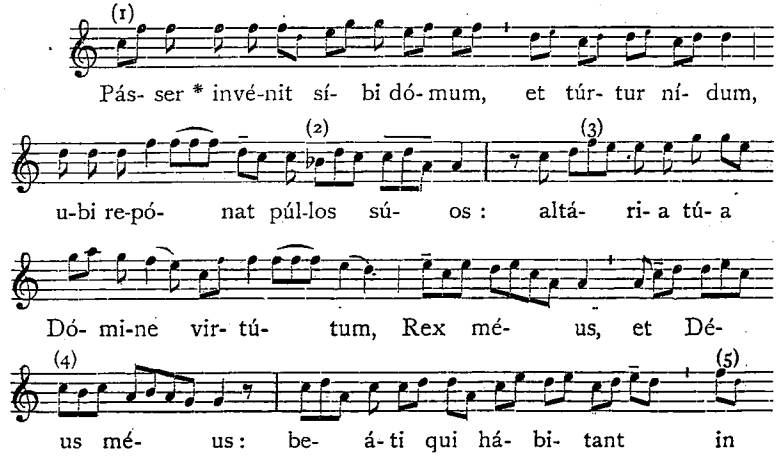


1) The first three Kyries are entirely in the natural hexachord, and so also is the second Christe.

2) The first and third Christes are in the hexachord of B-flat (no E), and the cadence is deuterus on A.

3) The same deuterus type of cadence. The rest is a repetition of formulas already used.

COMMUNION : *Passer invenit.*



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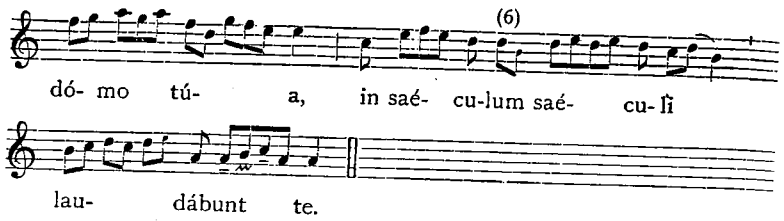


1) The natural hexachord is determined from the start by the combination of E and F, so that the ending of *nidum* sounds like a protus half-cadence on D; what follows is indefinite because E is avoided.

2) B-flat in conjunction with A determines the hexachord of B-flat, and the cadence of *suos* is a deuterus on A.

3) E restores the natural hexachord, and the cadence of *virtutum* is clearly a protus on D. After that, F is avoided, and we shall see why.

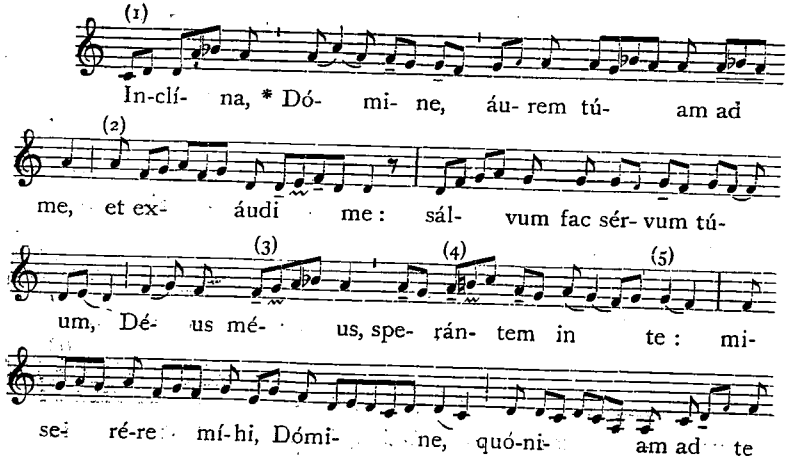
4) B-natural intervenes at *Deus* (that is why F was avoided) and thus determines the hexachord of B-natural; the cadence of *meus* is a tetrardus on G. What follows is indefinite until the end of *habitant.*

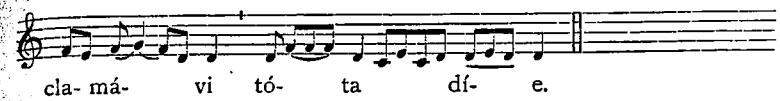
5) At *in domo* there is a clear return to the natural hexachord, in which we began.

6) At the end of *sæculum* the B-natural marks the triumph of the hexachord of B-natural, in which the final cadence is established (a protus on A).

It is especially in difficult melodies of this kind that modal analysis is so necessary; but it also clearly demonstrates the independence of the three hexachords.

INTROIT : *Inclina, Domine.*





1) From the beginning up to *ad me*, owing to the absence of E and the conjunction of B-flat and A (without admitting the authenticity of the flats) we are in the hexachord of B-flat.

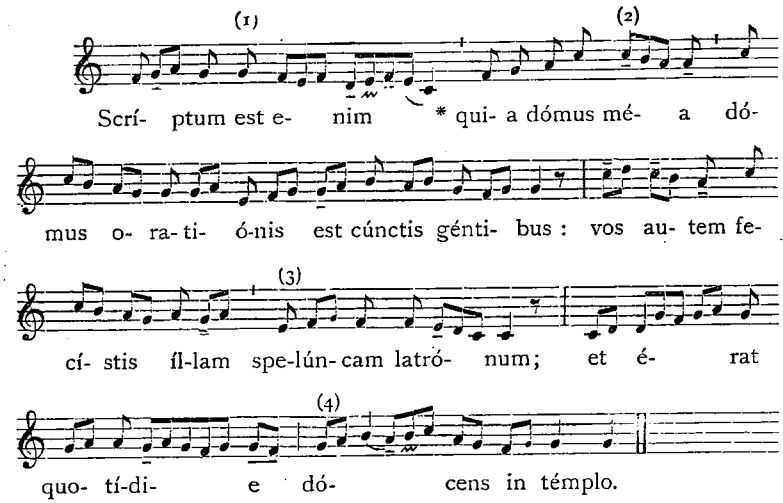
2) What follows introduces the natural hexachord with a protus cadence on D at *exaudi me.*

3) There is no change until *meus*, where the semi-tone A—B-flat introduces the hexachord of B-flat (E being avoided at *Deus meus*).

4) The B-natural at *sperantem* determines the hexachord of B-natural but this is only a fleeting modulation, for the F at *te* is too definite a cadence to belong to this hexachord (which only permits F when it is in movement).

5) This cadence reestablishes the natural hexachord, which is maintained to the end.

ANTIPHON : *Scriptum est enim.*



1) The beginning is indefinite; but at *enim* the natural hexachord is imposed by the semi-tone E—F.

2) The B-natural of *mea* determines the hexachord of B-natural; the semi-tone (E—F) of *orationis* is too fleeting to cause a modulation, so that until the (tetrardus) cadence of *gentibus* we are in the hexachord of B-natural.

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3) At *speluncam*, the semi-tone E—F introduces the natural hexachord with an indefinite (tritus-tetrardus) cadence on C at the end of *latronum*. There is no further change up to *quotidie* inclusive..

4) The hexachord of B-natural returns at *docens* and we end in mode VIII on G.

Notice that it is especially the semi-tone proper to each hexachord that guides us in this analysis.

Some melodies do not contain any semi-tone (e. g., the Communion *In splendoribus*): there is complete indefiniteness, and we are compelled to adopt one interpretation or the other.

Part II, which will involve the analysis and accompaniment of numerous plainsong melodies, will provide a practical solution to such difficulties.

III. RULES FOR ACCOMPANIMENT.

There ought to be no difference between the scale used in our accompaniment and that used by the melody; hence a hexachordal melody requires a hexachordal accompaniment.

1. *Melodies which are limited strictly to a single hexachord* are not rare:

(a) In mode I on D (Introit *Exsurge*), in mode II (Alleluia *Dies sanctificatus*) and in mode IV (Introit *Resurrexi*) we thus have merely the natural hexachord. As regards accompaniment, the only possible fundamental chords are: D minor, F major, A minor, C major; when we come to the practical work in Part II, we shall show that such limited harmonic resources are sufficient (1).

Nevertheless it is clear that a B-flat occurring in a chord *of transition* (G minor or B-flat major) would not upset the main tonality, just as a passing B-flat might come in the melody without a genuine modulation. Yet we must remember that a chord containing this note will always be longer than a simple note in the melody, and so the chord might be rather too definite in its effect: hence we maintain in principle that *the accompaniment should be hexachordal* (except where this is too difficult) — despite the fact that in our *Graduel Paroissial* (especially in the early part) we have introduced a number of B-flats in cases of this kind.

(b) Melodies in mode VII (Antiphon *Tu es Petrus*) and mode VIII (Alleluia *Benedictus es*) which avoid F, are strictly in the hexachord of B-natural. The only available chords are therefore: G major, E minor, A minor, C major (F major and D minor being excluded).

This is a strict rule owing to the modal indefiniteness which has to be respected.

(c) Melodies written exclusively in the hexachord of B-flat are rare. Notice however in mode VI the Introit *Requiem*, and in both mode V and mode VI very many cadence-formulas, where the mode is indefinite.

(1) The possibility of inversions and sevenths, etc., is not to be forgtoten.

The only available chords are: F major, D minor, G minor, B-flat major. Here again, this is a strict rule.

In all these cases, notice the frequent modulations to "relative" modes, which are often an essential element in the structure of the melody.

2. *Modulations from the hexachord of B-natural to the natural hexachord and vice versa* are extremely frequent.

Once the boundaries of each hexachord are fixed according to the rules of modal analysis, it is obvious that the natural hexachord never allows the use of B-flat in such cases, not even as a passing-note; nor indeed does it allow B-natural. Its accompaniment must therefore be strictly hexachordal. On the other hand, the hexachord of B-natural, on account of the general influence of its neighbour, allows F (chords of F major and D minor) provided it is used in chords *of movement*. A chord of this kind ought therefore to be comparatively *short* and should never be used for cadences, half-cadences or phrase-endings. (Remember that if *the melody* has a cadence on F, this implies a modulation to the natural hexachord). Thus in the Hymn *Veni Creator*, the end of *visita* must be accompanied by G major, not D minor; similarly the chord of F major would not do for the end of *Spiritus* or of *gratia*. Again, the first phrase of Kyrie IV must not end on the chord of F major. The chords of D minor and (especially) F major must be nothing more than *transitional*.

Modulation between these two hexachords is frequent in modes I, II, IV, V, and VI, which often begin in the natural hexachord and modulate, by means of B-natural, to A as protus tonic, G as tetrardus tonic, etc., etc.

Conversely, modes III, VII and VIII very often begin in the hexachord of B-natural (mode VII nearly always), and modulate either in the upper register (mode VII) or in the lower (modes III and VIII), by means of the semi-tone E—F or the third D—F etc., to the natural hexachord, in which the melody seems to be drawn to D as a temporary protus tonic. In such conditions, provided the restrictions already given are respected, it is permissible to use F in chords *of movement* in the hexachord of B-natural (1).

Often enough, in the tetrardus, F (the sub-tonic) occurs without any appreciable modulation; in that case it may be used in the accompaniment, especially in the cadence-formula, but always with the same restrictions.

Sometimes melodies in modes I and IV begin in the hexachord of B-natural, and modes III and VIII in the natural hexachord (the latter case is frequent). But that makes no difference to our principles.

Although of itself, F does not cause a modulation, it does not follow that it may be used as an unessential note (auxiliary-note or passing-note) on the chord of G major.

(1) In studying mode VII we shall see that a modulation in the upper register to the natural hexachord is seldom conclusive, and that in consequence certain cadences on the dominant D, analysed as in the natural hexachord, will nevertheless have the chord of G major rather than D minor.

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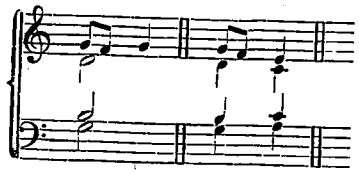
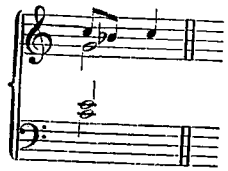
Here are two bad examples:

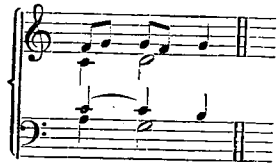


The same applies (for the same reasons) to a B-flat on the chord of C in the natural hexachord:



Anything that gives the elements of a dominant seventh is forbidden, even though the seventh may be analysed as an unessential note.

An example like the following, *where the third is suspended*, is however permitted:



The practical work in Part II will demonstrate numerous applications of these rules.

Furthermore, remember that in the hexachord of B-natural F should not figure in the accompaniment until *after* it has occurred in the melody. We shall often have occasion to return to this point: remain indefinite as long as the melody is indefinite; follow, do not anticipate. Thus in the *Te Deum* (where F does not occur until *Æterna fac*) the accompaniment should be strictly hexachordal right up to the moment when the melody descends to the lower register. Until then, F should be avoided.

3. *Modulations from the natural hexachord to the hexachord of B-flat and vice versa* are especially to be found in modes I, II, IV, V, and VI.

When the melody, *after using B-flat*, returns to the natural hexachord, B-flat may be used in the accompaniment in chords *of movement* (G minor or B-flat major) under exactly the same conditions as for F in the hexachord of B-natural.

When we are in the hexachord of B-flat, E should be avoided; the harmony should therefore be hexachordal. This rule should be strictly observed when the modulation is well emphasized, i. e., when B-flat, by its frequency or its length, dominates the phrase, especially if E does not occur in it (e. g., Kyrie *Clemens Rector*). In some cases (intonations of the *Statuit* type) there are serious reasons for doubting the authenticity of the flat; but since, in actual fact, we sing B-flat, it is not the accompanist's province to discuss the matter; in view of the frequency with which B-flat occurs in the first part of the Introits *Statuit* and *Gaudeamus*, it is impossible to deny the existence of a modulation.

But in many cases (Antiphon *O Doctor*, Introit *Misericordia Domini*, Offertory *Terra tremuit*, etc., and also very often in mode IV) the B-flat (whether correct or not) is only fleeting: while avoiding E in such places, we should treat the melodic B-flat, not as a harmony-note, but as an unessential note; so that our harmonic restrictions cover the use both of B-flat and of E. In fact we should not consider these instances as modulations.

We have already implied that this modulation does not occur very easily. That is why a conclusive cadence on G (with B-flat in the vicinity) does not necessarily sound in G minor, i. e., it does not always have a definite character: far from it. A simple point of rest, or a half-cadence, might well bear the first inversion of G minor (B-flat in the bass), which remains a chord of movement; but before a full-bar G minor in root position is often much too emphatic. Thus in *Ubi caritas*, the end of *amor* might well have B-flat in the bass (first inversion of G minor); but the cadence of *est* would not bear G minor in root position; so instead, we have to use C major, although E has not occurred in the melody! Similarly, in Credo I, the cadences on G before the double-bars should have the chord of C. Thus the melody seems to pause on the fifth of a tetrardus tonic (C). In mode VII certain cadences on D (even in the vicinity of the upper F) clearly imply, in the same way, the tonic G. By transposition, it is exactly the same principle in both cases.

On the other hand, the solemn *Deus in adjutorium*, because of the importance it gives to G (lengthened before the quilisma) and to B-flat, seems to demand G minor at the cadence of *Alleluia* (this may be too emphatic, but in our opinion C major is impossible).

In modes III, VII and VIII, apart from certain very clear cases (like the beginning of the Tract *Qui seminant* or the Antiphon *Urbs fortitudinis*), B-flat should be systematically treated as an unessential note.

On the other hand, when it comes in tritus cadences where the modal formula (through the absence of E) is indefinite and generally lies within the compass of a fifth above the tonic (F), B-flat plays an essential part and the hexachord of B-flat is clearly indicated.

4. Sometimes there is a very close connexion between *the hexachord of B-flat and the hexachord of B-natural.*

In many cases, of course, the modulation is prepared and usually the natural hexachord intervenes as a connecting link: when these con-

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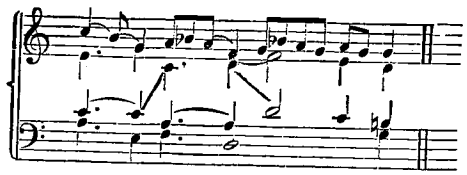
ditions obtain, the application of the principles already given presents no difficulty.

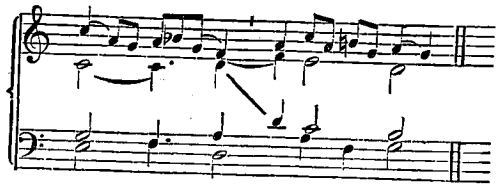
It is otherwise when B-flat and B-natural are very close together, or when the natural hexachord does not clearly intervene as a connecting link.

Nearly always B-flat comes first, and then B-natural. In the Introit *Gaudeamus*, after the B-flats as far as *Domino* inclusive, and without any E to introduce the natural hexachord, we find B-natural in the cadence of *Virginis* (or *omnium* for the feast of All Saints). Similarly, in the Introit *Statuit*, after the B-flats of *principem fecit* etc., we find B-natural in the cadence of *dignitas*. Without admitting the authenticity of the flats, it is essential to banish B-flat from our accompaniment as soon as possible, treating the B-flat of the melody as an unessential note if we can, and never using this note in the accompaniment except at a good distance from the B-natural. Then, by using the chords of C major or A minor, E will provide the necessary link; finally, as far as possible, the melodic B-natural (whenever emphasized by the melody) should also at first be treated as an unessential note. All this is easy in the two cases we have mentioned, as we shall see in Part II.

Certain other cases are more difficult, e. g., the cadence of *tuam* in the Alleluia *Ostende*. In view of the whole context, this cadence on G sounds clearly like a tetrardus, and yet two B-flats (both certainly incorrect) precede it. The chords of C major and G minor are both impossible, as experience will show. But if we treat the B-flats as unessential notes our accompaniment can lead up to G major without giving the impression of a false relation :



Similarly in certain cadences of VIII-mode Tracts :



The main thing, therefore, is to see that B-flat and B-natural do not come close together as harmony-notes. Except in certain very emphatic cases, B-flat should be treated as an unessential note; generally we shall also have to wait for the melody to introduce B-natural before using it in the accompaniment as a harmony-note.

To sum up : we should begin by making a modal analysis on the hexachordal principle, as strictly as possible, without any thought of accompaniment. The letter N should be used to indicate the natural hexachord; ♮ and ♭ the hexachords of B-natural and B-flat respectively. Then, with regard to our accompaniment, we have to remember *that the natural hexachord excludes B-natural, and only allows B-flat in chords of transition when the melody has already used it in the immediate context; that the hexachord of B-natural only allows F in chords of movement when the melody has already used it; and that the hexachord of B-flat excludes E.* Nevertheless, certain B-flats, which are very fleeting or close to a B-natural, are to be regarded as non-modulating, and full cadences on G in the vicinity of B-flat have to be carefully examined (three solutions : G minor, C major, and at times even G major).

5. *Transposition* is a practical difficulty and cannot be taught by a book. It is comparatively easy to substitute one clef for another and to alter the key-signature; but we have to train ourselves to read rapidly and to find harmonic progressions in any key; and that is a question of time and practice (1). But we can simplify our task and at the same time satisfy all practical requirements, if we choose only one or two transpositions for each mode (in addition to the original pitch).

For example : *Mode I :* original pitch and a tone higher. *Mode II :* a third and a fourth higher. *Mode III :* original pitch and a tone lower. *Mode IV :* original pitch and a tone higher. *Mode V :* original pitch, a tone and a third lower. *Mode VI :* original pitch and a tone higher. *Mode VII :* a third and a fourth lower. *Mode VIII :* original pitch and a tone lower. (We are presuming that the normal finals are used : D, E, F, G. Unusual finals should first of all be brought into line with the usual finals by transposition). If we adopt A as a uniform dominant for all the psalms at Vespers, modes III and VIII must be transposed down a third (which makes the antiphons rather low); otherwise, for an average choir it is generally better to adopt a slightly higher pitch (2).

But at the same time we have to transpose the elements of modal analysis. And so in the early stages we recommend the student to keep to the original pitch. Later he will proceed as follows : first transpose the characteristic features of each hexachord, i. e. if we are transposing a tone higher, the semi-tone E—F (characteristic of the natural hexachord) becomes F-sharp—G; B-natural (characteristic of the hexachord of B-natural) becomes C-sharp; B-flat (characteristic of the hexachord of B-flat) becomes C-natural. And now it is C-sharp (very often C-natural too) that is excluded from the natural hexachord; G (except with the precautions indicated for F) that is excluded from the hexachord of B-natural; and F-sharp from the hexachord of B-flat.

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(1) See the author's *Treatise on the Accompaniment of Gregorian Chant*, which indicates the clefs to substitute and the key-signatures.

(2) Notice that two readings are possible on the same degree with two different key-signatures : E and E-flat, for example, as finals of mode I ; F-natural and F-sharp for mode II, etc.

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For the rest, the principles will automatically be applied if the accompanist is careful to follow this broad general rule: the accompaniment should employ only those elements which are immediately present in the melody, as far as possible without anticipating them.

Furthermore, it is always possible to write or prepare an accompaniment at the original pitch and then transpose it: indeed this is the best way to avoid being influenced by the heptachordal system.

6. *The deuterus cadence on E* poses a problem: on the one hand we have placed it in the natural hexachord, and on the other hand we do not allow B-natural in this hexachord; hence the chord of E minor is not permissible for the final note (E) of a deuterus; otherwise, if we adopt this chord, we at once destroy the distinction between the hexachords, because the deuterus requires a semi-tone (F) above the final and yet we use B in the final chord.

Now the distinction between the hexachords is not a mere hypothesis without proof; we have given serious arguments for it. A supporter of the contrary thesis might maintain that the modulation caused by F no longer applies to the deuterus, and that therefore the cadence does not belong to the hexachord of B-natural. It is all a question of whether the final E naturally evokes its fifth, in the same way as the protus evokes A, the tritus C, and the tetrardus D.

Certainly we do not deny the autonomy of the deuterus; its character is well defined, it has its reciting-notes, its cadence-formulas, etc.: in this sense its final note is indeed a tonic. Nevertheless the listener soon realizes that its cadence is much more vague than those of the other modes, and such imprecision is not without its charm.

Moreover, with regard to the plagal deuterus (mode IV) no doubt is possible. It often moves in the general environment of mode I or mode VI, where there is no shadow of any synthesis between E and B-natural. Very often too it recites on its dominant A (as in psalmody) and B-natural is used as an auxiliary-note. In such cases there is the synthesis E—A (not E—B), and the accompaniment (always the humble servant of the melody) has to conclude with the chord of A minor, even though the melody has been mainly in the hexachord of B-natural and merely ends with a modulation to the natural hexachord — a modulation which is, so to speak, begun without being fully completed.

It is quite different with the authentic deuterus (mode III). To understand its character it is necessary to alter the dominant from C to B, in accordance with the primitive texts. But even then, the synthesis E—B is by no means realized. For the recitation on B is connected melodically with G and D, and fluctuates between C and A (on which there are frequent protus cadences); it is never connected with E. This mode (like mode VIII) often descends to the lower D where it establishes half-cadences in the protus: its final E is in the same environment.

The only cases of the synthesis E—B are those of the typical intonation *Quando natus es* (Circumcision) or of the Gloria of Mass XIV. But it is precisely in such cases that F does not occur and *the mode is indefinite.*

This antiphon-intonation is common also in mode I; and the melodic formulas of the Gloria are very decidedly protus in character. So that when F ultimately does occur, it sounds like a note foreign to the scale.

Formulas like *Tu Rex gloriæ, Christe* in the *Te Deum* are in exactly the same category and imply F-sharp as much as F-natural.

We therefore maintain that the deuterus cadence belongs to the natural hexachord, no matter how unimportant this hexachord may be in the general structure of certain melodies; that (unlike the other modes) it does not evoke its fifth, and that in consequence the only chords that are possible for the final note are (according to the context) A minor or C major, mostly the former (except in the cases we have mentioned, of indefinite mode, where E minor is possible).

In conclusion, we must add that deuterus cadence-formulas also occur on B, exactly transposed to the fifth above. Now, since B minor is impossible here on the final B (because of F-sharp) and since the cadence is the same, it follows that E minor is equally impossible on the final E: it is simply a question of transposition.

In studying each of the modes and the varieties of each mode (in Part II), we shall propose harmonic formulas for the cadences and at the same time present a method of work which will facilitate the application of our rhythmic and modal principles. As far as the deuterus is concerned, we have merely tried to solve a special difficulty, and we shall return to this mode as well as to the others.

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PART II.

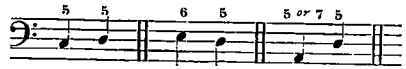
PRACTICAL STUDY OF THE REPERTORY.

CHAPTER I.

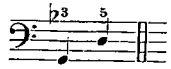
THE PROTUS.

The protus is written mostly on D.

The harmonic formula for *simple cadences* is essentially :

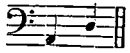


B-flat is never of sufficient importance to allow the plagal cadence in its fundamental form :

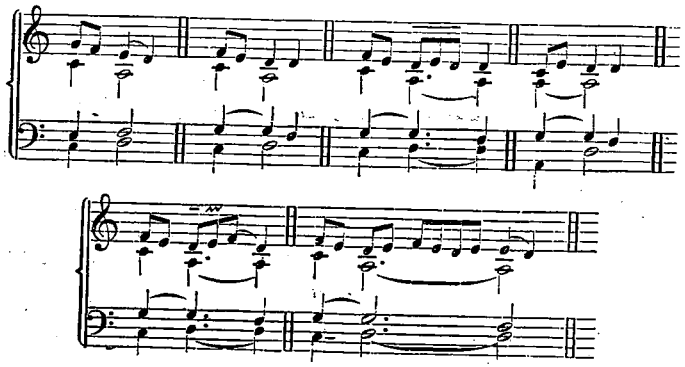


When the melody employs a formula like :

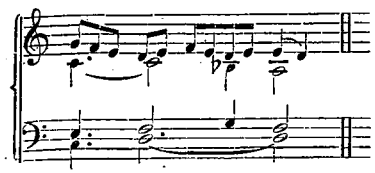
etc.

the bass is :  , so as to avoid octaves between the outside parts.

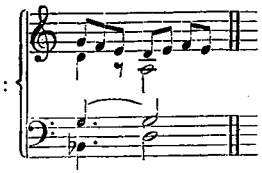
For *compound cadences* we have :



If the context warrants a transitional B-flat :



At a pinch :



When we use the bass A—D and a 4—3 suspension has to be prepared for the final chord of D minor, we have to take care to introduce the seventh of A (i. e., G) in the tenor.

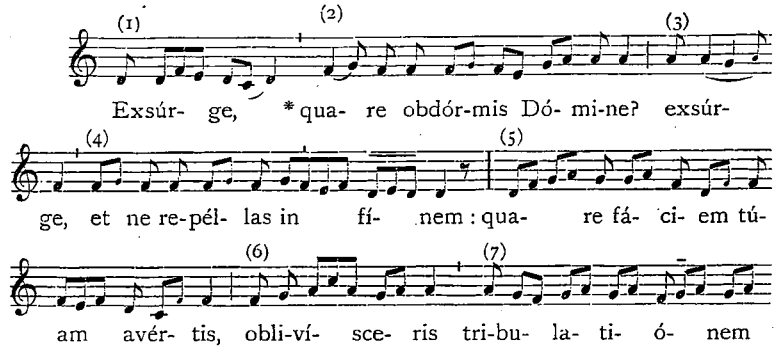
I. — The Authentic Protus : Mode I.

I. INTROIT : EXSURGE *(Sexagesima Sunday).*

This is a perfect example of mode I written in a hexachordal scale.

The accompaniment must also be hexachordal, the only possible fundamental chords being : D minor, F major, A minor, and C major.

Here is the transcription of the melody : (1)



(1) Hitherto in our transcriptions we have put B-flat in the signature for modes I, II, V, VI and usually for mode IV, because, *positis ponendis*, while B-flat is allowed in the accompaniment, B-natural clearly marks a modulation. Anyhow, the key-signature is a purely material detail ; the essential thing is that the chords should be appropriate to the melody. We now prefer the simpler key-signature. So, except when B-flat figures as a signature in the original notation, we do not use it when the accompaniment is at the original pitch. But when transposing we prefer to reduce the signature to a minimum : in other words, if a first-mode melody on D is transposed a tone up, we are content with a single sharp instead of the two which the transposition logically demands. At the original pitch the absence of signature does not in fact decide the nature of B ; but in transposing a tone higher, C-sharp in the signature seems to favour one interpretation rather than the other. It is an elementary rule that with no indication to the contrary, B should be sung natural ; but this does not mean that B-natural constitutes a part of the mode. Briefly, in practice we adopt the simpler key-signature.

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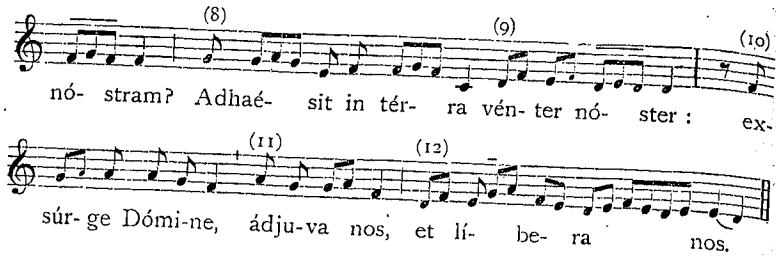
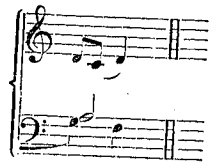
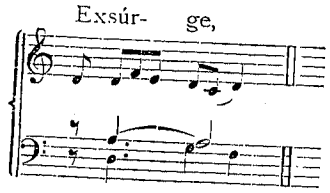


1) Already in the intonation the difficulties begin. Everything points to the chord of D minor. The cadence of this little phrase is *compound*, and is determined by the position of the final syllable. In other respects, in spite of a certain autonomy, it is in no way conclusive, and therefore we prefer the first inversion to the root position. The suspension which is normally used in analogous cases gives us :

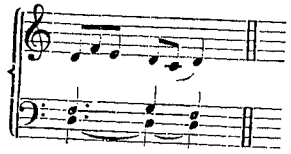


But this suspension can only be prepared by using the chord of G minor, which is forbidden. There remains the possibility of an appoggiatura in the bass :

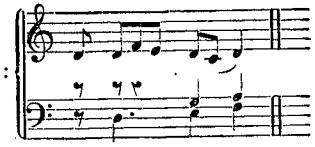


Presented in this form, it is acceptable, though in itself the procedure is dangerous.

Needless to say, a simple auxiliary-note in the tenor would be puerile; moreover it would be unrhythmic, because an unessential note of this kind can only mark a secondary ictus :



Sometimes we do not begin our harmony until the end of the intonation, and this with the precise object of marking its cadence when all other means are lacking. Here we might have E in the bass (a chord of the sixth) moving to F; but this chord would have a merely transitional character which is unsuitable. By suppressing the initial chord and beginning with the first inversion of C on the last syllable of the word we have :

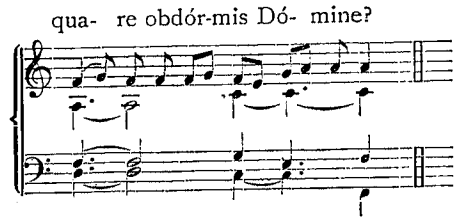


which is acceptable but not perfect.

Perhaps the least bad accompaniment is to have a bass appoggiatura (or a chord of the second). In any case, two distinct chords on the last syllable of the word *Exsurge* are much too heavy.

This analysis shows what difficulties plainsong accompaniment involves in matters of simple detail.

2) Continuing our study we come to the next phrase, which ends with a simple cadence at the word *Domine*; our first concern is to see that the end of this word is marked with a real change of chord. We have the choice between F major, D minor, or A minor — this last in its first inversion because the cadence is not conclusive : a definite cadence on A minor would suggest a protus and imply B-natural. We shall make our choice in due time. On the other hand, the end of the word *obdormis*, without having the importance of a phrase-ending, is too marked for us to treat the melodic E as an unessential note (rule for post-ictic cadences); hence the preceding F must be an appoggiatura of E. This granted, we begin on *quare* with the existing chord (D minor) but in root position; any change before the end of *obdormis* would be quite pointless; the last syllable of this word will have the chord of C major (which is obviously indicated) and we shall maintain it up to the end of *Domine :* at this point we put F major, because D minor would give consecutive fifths between the outside parts, and the first inversion of A minor would not change the bass note :



Notice that we keep the alto a good distance from the melody (in accordance with our previous recommendation) and that the tenor doubles the melodic reciting-note an octave below. Furthermore, the ictus on

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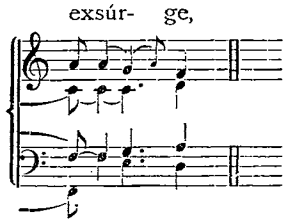
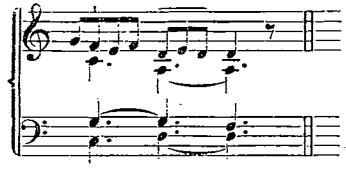
which there are no chordal changes enable us to modify the disposition of the parts in order to keep the harmony complete: thus the tenor moves from G to E, exchanging notes with the melody.

3) The beginning of *exsurge* is on the preceding chord (F). But we have to consider a change on the end of the word. The pressus on G hardly allows this note to be treated as a passing-note; as the only chord which suits it is C major, we have the choice between the root position and the first inversion. But if we envisage D minor for the end of the word, on the melodic G we shall write E in the bass rather than C, because then the bass moves by step:



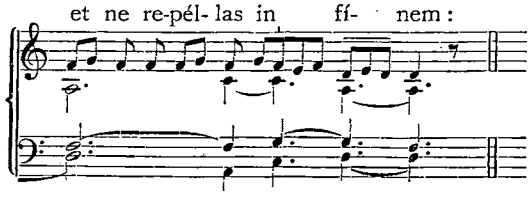
The bass leap of an octave is for the convenience of the left hand.

4) Now all our attention is directed to the compound cadence (torculus-and-punctum) of *finem*, and we immediately write the cadence-formula with the usual suspension:



not forgetting that the vertical episema affects the F.

For what precedes we could maintain the existing chord of D minor without change; but in order to avoid the monotony of the bass (D—C—D) and for the purpose of marking the last syllable of *repellas* (in preference to the accent) we put A in the bass, with the first inversion of F major:

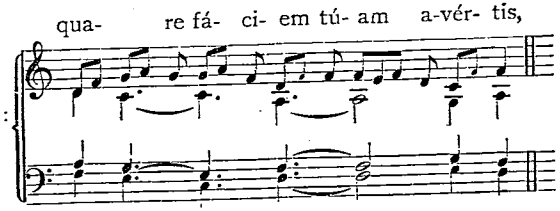


Notice that once again we adopt our usual disposition, with the tenor doubling the reciting-note of the melody.

5) In the next phrase notice the end of *avertis* which we have to mark, either with the root position of D minor or with the first inversion of F: we shall choose in a moment; but notice that our first concern is always for the cadence.

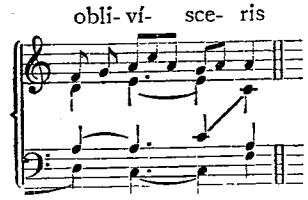
We begin the word *quare* on the previous chord (D minor). The importance which the melody gives to G hardly allows the end of *quare* to be treated as an unessential note, and furthermore if C major succeeds D minor at the beginning of *faciem*, with G in the melody, it will be very difficult to avoid consecutive fifths. Hence we might consider writing C major on the second ictus of *quare;* unfortunately this ictus is of minimal importance: consequently we use the first inversion of C (which is lighter than the root position), and the root position comes on the accent of *faciem*. At *quare* we begin on the first inversion of D minor. After *faciem* the very nature of the melodic intervals at *tuam* demands D minor (in root position because the melody is on the third). The accent of *avertis*, because of the melodic fourth C—F, is well suited to the first inversion of F major, but D minor is subsequently needed for the end of the word, and the bass leap of a fourth would then have to be "corrected" as we said in Part I; moreover the bass D—A—D is lacking in elegance because A is not a fundamental. F major in root position returning to D minor would be a feeble progression (too many notes in common). There remains the possibility of E in the bass (first inversion of C) with an anticipation of F in the melody; the monotony of the return to D will subsequently be remedied by a descent to C.

We therefore write:



(Notice the position of the tenor and the alto).

6) The word *oblivisceris* forms a little phrase on its own; the end must be marked by a change of chord (F major, D minor, or the first inversion of A minor). We naturally begin with D minor: the high C on the accent of the word suggests F major or A minor; we adopt the latter (first inversion) which allows us to put C in the bass and finish the word on F major:



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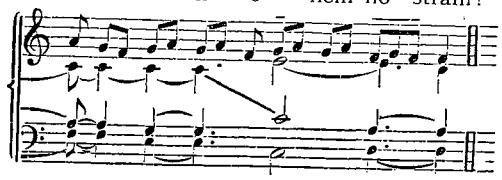
(We resume as soon as possible the usual disposition of the alto and tenor, which is necessary for what follows).

7) The next phrase does little more than decorate, so to speak, the note G, which is taken as a reciting-note and then emphasized by the salicus. In our opinion it is pointless and even detrimental to look for varied harmonies in such cases; the only chord which suits G in the melody is C major. But we must not forget the compound cadence (torculus-and-punctum) at *nostram*. It is impossible to end with F major, even in its first inversion, for the 4—3 suspension would give B-flat. D minor is necessary; and since we require a single chord for the formula, with a suspension in the alto or tenor, we shall introduce a 9—8 suspension in the alto: this means that the alto and the melody must come close together on the ictic note of the salicus. Therefore we begin with the first inversion of C, so as to put the root position on the ictus of the salicus:

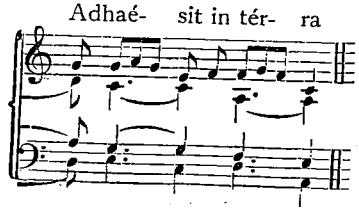
tri-bu- la- ti- ó- nem nó- stram?



(Prepared in this way, the semi-tone between the alto and the melody goes quite well).

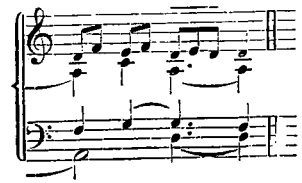
8) The doubled punctum at *terra* establishes this word-group as a little phrase. Straightway we think of marking its cadence. But the initial intervals of the melody indicate C major; the first syllable of *terra* demands F major or D minor. To avoid monotony and at the same time reflect the expressive fall of the melody, we can have A minor for the end of the word, which gives:

Adhaé- sit in tér- ra



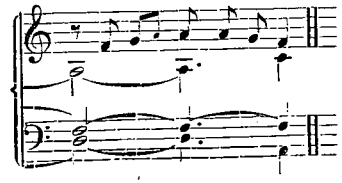
9) Now we mark the compound cadence of *noster*, with a tenor suspension. The low A which we already hold can quite well lead to the cadence chord. We therefore introduce a six-four, in conformity with the principles already given, and then prepare the usual suspension by adding the seventh:

vén- ter nó- ster:



10) Shall we put the ictus on the end of *exsurge* or on the accent of *Domine?* The plainsong-notation edition says nothing; the modern-notation edition chooses the final syllable of *exsurge*. If we begin with D minor, there is no need for any change before the end of *Domine*: but at that point the only possibility is the first inversion of F major, which we adopt:

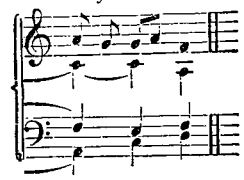
exsúr-ge Dómine,



(Again notice the sustained F in the tenor).

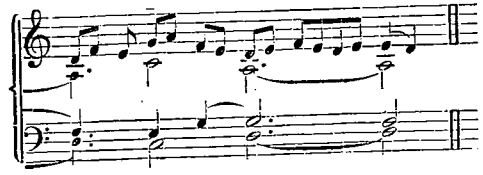
11) The word *nos*, being the end of a phrase, requires a change of chord. After what we have just written, this chord must be D minor:

ádjuva nos,



12) Then, putting on the ictus of the salicus the only chord that fits G in the melody, viz. C major, we lead up to the greater compound cadence of the conclusion with the usual suspension; notice that it ends with a doubled clivis, marking the final thesis with a lesser compound cadence (made possible by the renewal of movement within the larger compound cadence): thus the resolution of the suspension comes on the first note of the clivis:

et lí- be- ra nos.



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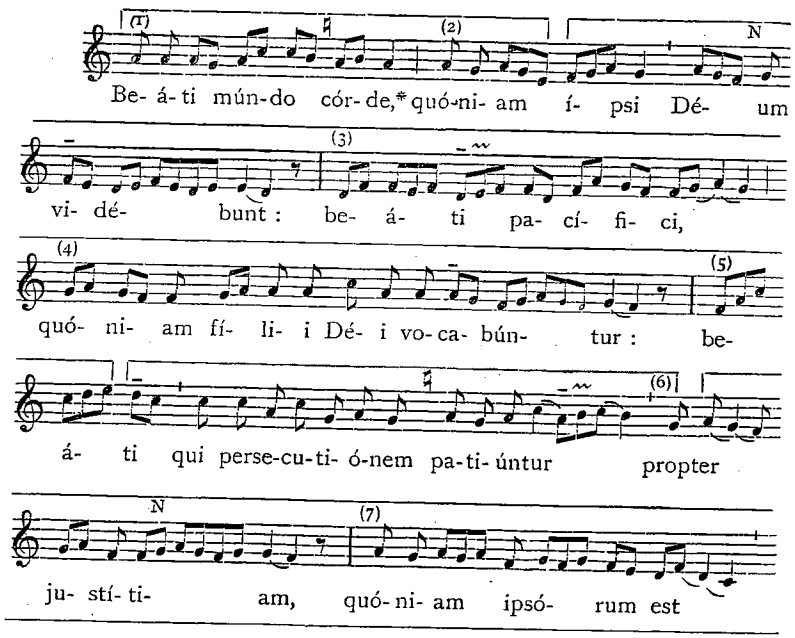
Notice henceforth that new phrases often begin on the chord of the preceding cadence, which from the rhythmic point of view is quite normal. If the choir needs to be led by the organ, it is obvious that we shall have to proceed otherwise. But once the accompaniment is reduced to this rôle, nothing good is possible, either with the choir or with the organ.

By putting together the different phrases which we have had to separate, we have, without any alteration, an accompaniment for the whole of the Introit *Exsurge* (1).

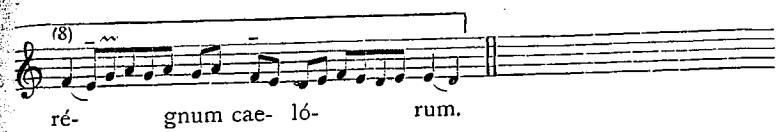
II. Communion : Beati mundo corde *(All Saints).*

This melody is written in two hexachords, the natural hexachord and the hexachord of B-natural, It also possesses the unusual feature of beginning in the latter (protus on A) and ending in the former (protus on D). Consequently B-flat must be systematically avoided; but the hexachord of B-natural allows F in chords *of movement.*

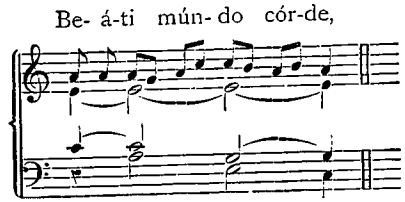
Here is the text with its modal analysis :



(1) Once and for all, we ask the reader to notice that since the publication of our *Graduel Paroissial* we have become stricter in certain details (notably the use of B-flat), without however condemning the liberties we then allowed ourselves. Thus in the present work will be found considerable differences from our previous accompaniments. Furthermore, our object here is to demonstrate that the strict application of our principles is possible; in a practical book, that was not our intention, and for various reasons of a practical kind, we were obliged to allow ourselves certain liberties.

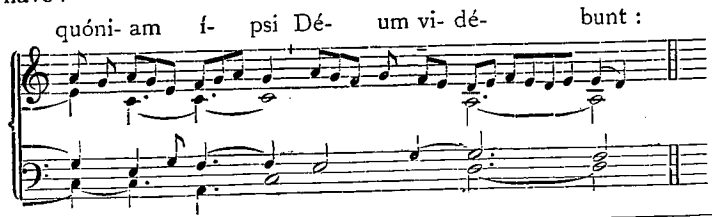


The intonation indicates the chord of A minor; *a priori* we see that only this chord (first inversion for preference) suits the end of *corde*; but in order to give it its rhythmic importance, we must insert a secondary chord beforehand. Now, since the hexachord of B-natural is clearly established and the natural hexachord has not yet appeared, we prefer not to use F in this secondary chord, and therefore we avoid D minor, which the sequel would justify (1); and so there remain G major and E minor. As we shall end with the first inversion, we begin with the root position, and we place it only at the end of *beati* (which should be marked in prefence to the beginning); thus the bass does not enter until after the tenor and alto, and the secondary chord of E minor comes on the second syllable of *mundo :*



We hold on the tenor G, establishing a six-five chord, in order to maintain the movement; but it could very well rise to A.

2) At *ipsi* (semi-tone E—F) the natural hexachord supersedes the hexachord of B-natural and gives, at the full bar, a quite normal compound cadence whose harmonic formula we already know. Before that, notice the end of *ipsi* (doubled punctum) which requires a change of chord : this chord can only be C major (E and G being forbidden as fundamentals), so we introduce a secondary chord on the first syllable of *ipsi.* The chord of C now leads quite naturally to D minor (with the usual tenor suspension) for the compound-cadence fomula. Hence we have :



(1) In practice we are far from condemning this chord; but we wish to show that the strictest application of our principles is possible, and we must note that in some other cases (e. g. the beginning of the *Te Deum*) this sort of licence is not allowed.

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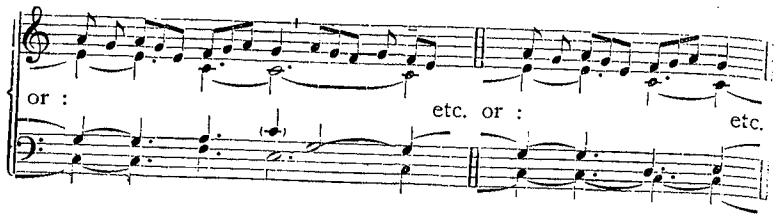
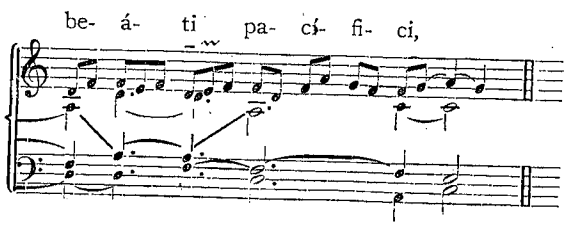


In the first version, the 4 — 3 suspension (in the tenor) helps to bind *ipsi* to the rest of the phrase.

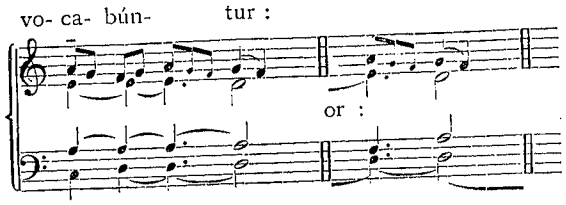
Notice that the horizontal episema on *videbunt* in no way requires a new chord.

3) The melody now indicates the chord of D minor, which is that of the preceding cadence; our first thought is for the cadence of *pacifici* (compound cadence). Are we to put the chord on the end of the word, or shall we reserve it for the pressus which in this context acts as the first note of a doubled clivis?

In cases of this kind, we know that the essential ictus of the cadence is on the pressus, the preceding compound beat being a sort of preparation. (Naturally if there is more than one compound beat of preparation, the end of the word resumes its rhythmic rights.) Nevertheless we always try to mark the end of the word with a secondary chord or a movement in the bass. In the present case only the chord of C major suits the pressus : we therefore take the A of the melody as an appoggiatura of G. The F at the end of the word can have the first inversion of F major. The rest of the phrase can continue on D minor, which must be inverted so that the D before the quilisma (being a long note) may not come on a chord of rest. We therefore have :

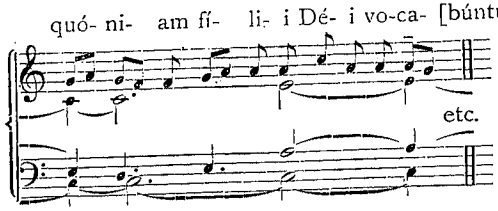


4) The next phrase again ends with a compound cadence, but this time it is a tritus on F. In spite of the full-bar, this cadence has not a conclusive character. Besides, except when they come at the ends of melodies, tritus cadences seem to have a merely interruptive character : usually we make them interrupted cadences (sometimes inverted cadences) ; in other words, here we write the chord of D minor. Notice that the customary 4 — 3 suspension on F requires B-flat, which is obviously impossible here. With D minor, if we wish to have only one chord for the cadence-formula, the only possible suspension is a 9 — 8 in the alto :



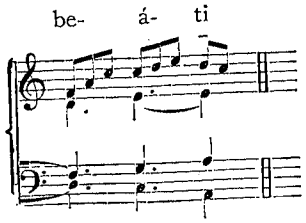
If the singing has sufficient life, this suspension will not sound too harsh. However there is still the possibility of a solution with two chords, the first (obligatory) at the beginning of the formula, the second on the first note of the doubled clivis. (Cf. *justitiam*, below).

The first part of the phrase fits perfectly on the bass C, which we already have. The two F's of *quoniam* might be rather harsh; a subsidiary movement in the tenor will solve this difficulty :



Notice that except at the cadences we always allow the melody to recite on a single chord, and that our chordal changes (the principal ones at least) reach from one cadence (or phrase-ending) to the next.

5) The melody now rises again into the upper register and establishes a modulation to the hexachord of B-natural even before B-natural occurs : this modulation is clearly perceptible as early as the end of *beati*. We maintain a discreet reticence and refrain from introducing B-natural into the accompaniment until it comes in the melody; on the other hand we avoid dwelling on the chords of D minor and (especially) F major, even though we regard them as possible in a transitional passage. Then we observe the two indispensable changes of chord : at the end of *beati*, and at the end of *patiuntur*. The clivis of *beati* demands either the first inversion of C major or else A minor; we adopt the latter on account of what follows :



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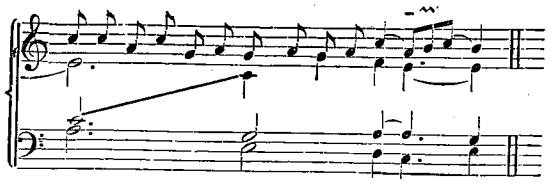
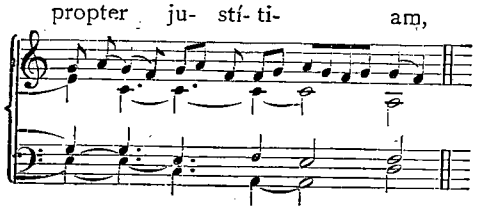
After suggesting A minor, the melody seems to poise on G, but we wait until the end of *persecutionem* before writing the chord of C, and then there will be no further change until the last syllable of *patiuntur:* at this point we could return to A minor so as to finish on G major or E minor at the end of the phrase. But for greater variety (1) we can also have:

qui persecu- ti- ónem pa-ti- úntur



6) As the melody returns to the natural hexachord, we must renounce the use of B-natural as soon as possible; we abandon it on the pressus of *propter* without changing the bass, so that the fundamental chord of E minor becomes the first inversion of C. After that there is no real change of chord until the compound-cadence formula at *justitiam.* The solution proposed above for *vocabuntur* is difficult to adopt here, E in the alto being very harsh against the two F 's in the melody. Hence we write:

propter ju- stí- ti- am,

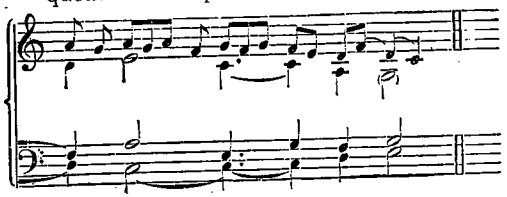


Without disguising the fact that our harmonic formula is somewhat heavy, we make the tenor F descend to E, so as to have a fundamental chord: it is only on this condition that the bass A may rise to D for the cadence (see Part I, on the subject of chords of the sixth).

7) From here to the end, the melody remains in the natural hexachord. First notice the cadence of *est,* which is analogous to that of *pacifici.* We can begin *quoniam* on the previous chord (D minor); but if we use C major on the second syllable of *ipsorum* (a change is necessary for the cadence of *est*) we shall have some difficulty in avoiding fifths (for the melody contains A, the fifth of D, and then G, the fifth of C); and so we put C in the bass at the end of *quoniam,* and this note will be held until we come to *est:*

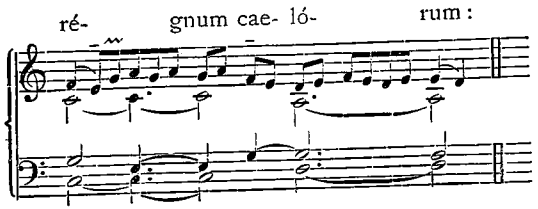
(1) Such reasons are valid only when variety in no way impedes an exact harmonic interpretation.

quóni- am ipsó- rum est



8) We next mark the first of the two notes that prepare the quilisma, treating it as an appoggiatura of the second — although in this case two chords would be possible so long as they are sufficiently "in movement" (cf. *patiuntur* above). We put everything on the fundamental chord of C until we come to the final chord of D minor, correctly placed for the compound cadence, with the usual suspension in the tenor:

ré- gnum cae- ló- rum:

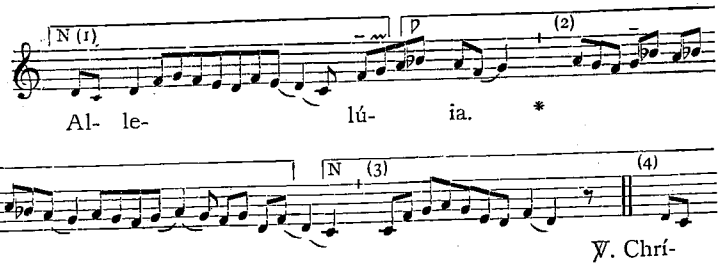


When we deal with the other modes, we shall have occasion to return to the interplay of these two hexachords (the natural and the B-natural) within the same melody.

III. Alleluia: Christus resurgens

(Fourth Sunday after Easter)

With this Alleluia we come to the modulation from the natural hexachord to that of B-flat, the hexachord of B-natural being excluded:



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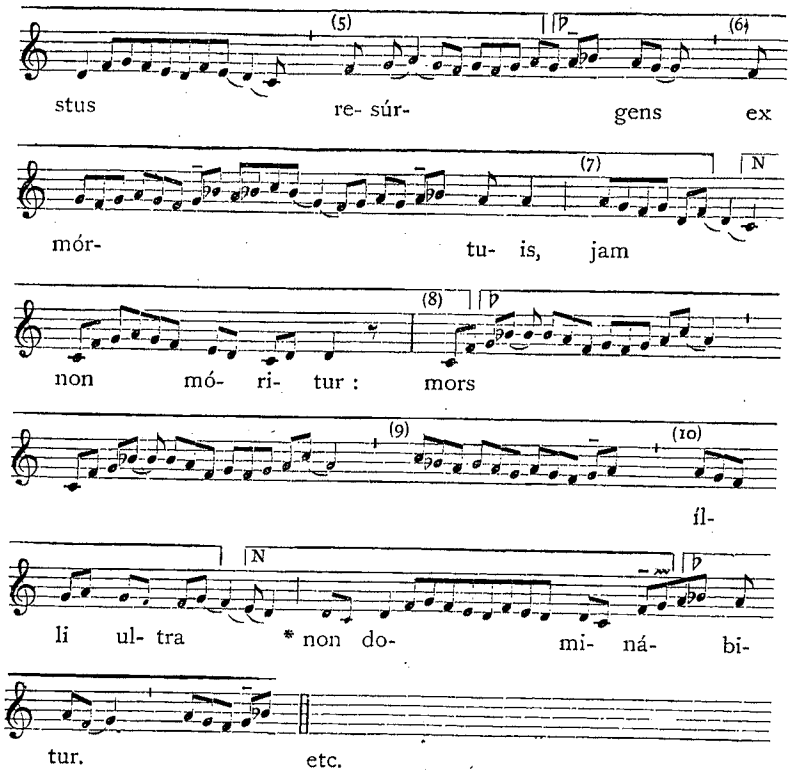
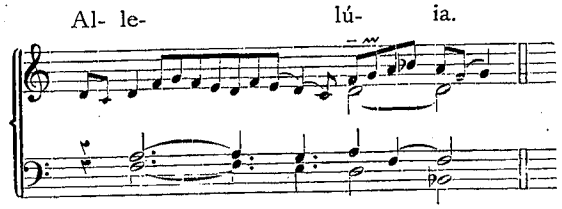


1) The beginning, which is in the natural hexachord, leads at the end of the word *alleluia* to a lesser cadence, which, in the neighbourhood of B-flat, belongs to the hexachord of B-flat. If the melody were to return immediately to the natural hexachord, we might choose either to ignore the B-flat by treating it as an unessential note and accompany the G by the chord of C major, or else to use the chord of G minor in movement (i. e. its first inversion). But on the contrary, in the sequel the melody insists on B-flat : therefore the modulation is clear : E does not come in the melody for a long time yet; we shall therefore exclude this note from our accompaniment.

The melody begins by suggesting D minor, which we put in its first inversion on the long note (the root position would lack life), thus neglecting the first two notes. There is no need for any change before the pressus; any harmonic movement would mar the suppleness of the melody.

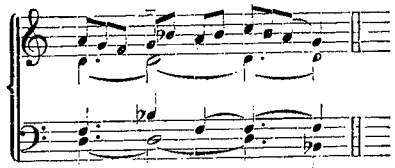
If we adopt the root position of D minor for the note before the quilisma, which is natural enough, the intervening E between the F and the D in the bass will suit the pressus, and the melodic D will be treated as an appoggiatura of C.

But with regard to the end of the word, in our opinion it is quite a different case from the one we had in the preceding melody (at the words *pacifici* and *est*), and here we make our principal chordal change on the end of the word; we are than able to dispense with any harmonic movement on the long melodic G :

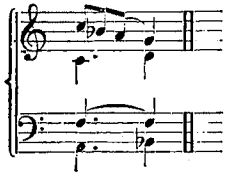


The chord of G minor thus begins on the A of the melody.

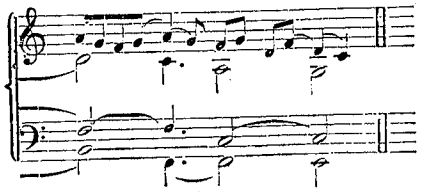
2) In the jubilus we observe the long G which again demands G minor; in order to give this chord its rhythmic importance we have once again to begin with D minor :



The return to B-flat in the bass is not free from monotony. We could have :



But a fundamental chord of F major on the subsequent pressus breaks the monotony much more satisfactorily. The phrase-ending (a small compound cadence) on the low C certainly sounds like a tetrardus, even without any E, and we adopt the first inversion of C major; the bass descends from F to E without any other movement :



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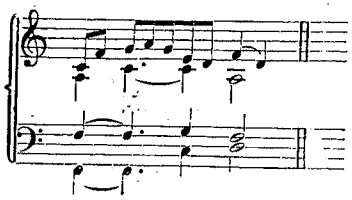
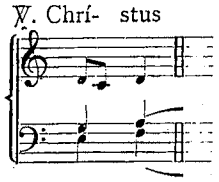
We thus reduce our chordal changes to the minimum required by the rhythm.

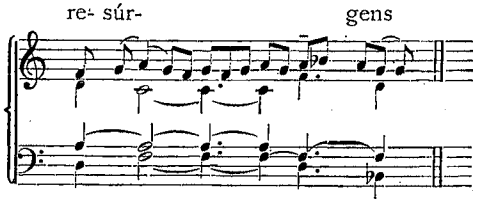
3) For the last phrase, which ends with a compound cadence (here the pressus acts as the first note of a doubled clivis), we put our final chord of D minor on the pressus, without any change on the melodic D — which is all quite simple. The fourth C — F suggests F major; after that, C major leads to the final chord with the usual cadence:



4) The verse begins with a repetition of the intonation: there is no reason for altering the natural harmony: a simple transitional chord leads to the first inversion of D minor for the end of *Christus*:



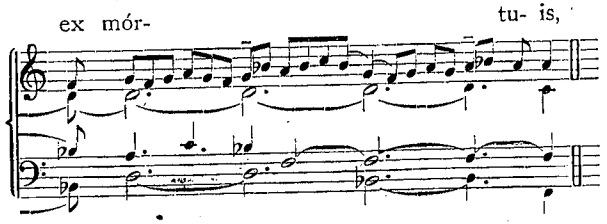
5) The melody now invites the chords of D minor or F major; after E in the bass, D seems preferable; but as a chordal change is demanded, if possible, on the subsequent pressus (which is also the beginning of a vocalise on the second syllable of the word), we give it the chord of F major, which could suffice as far as the cadence of the word; nevertheless the horizontal episema on the A before the B-flat might just as well be marked by a chord, i. e. by a return to D minor, the only possibility. The monotony of the bass will be remedied by a descent to B-flat (G minor being the only possibility for the melodic G):



Notice the six-five chord (which, however, is not obligatory).

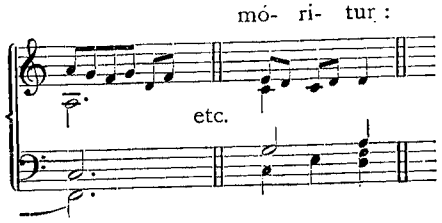
6) Looking ahead we see that a chordal change will be necessary on the pressus-G (G minor) and then again at the end of *mortuis* (F major or D minor). Since the pressus-G has to have the same chord as the

end of *resurgens*, an intermediate chord is required and must be placed, if possible, on the beginning of the vocalise: here we use D minor again, with no change of bass until the pressus, simply introducing a six-four in the normal way on the horizontal episema. The bass B-flat (on the pressus) leads to the cadence of *mortuis* where we have F major in order to break the monotony of D minor; we do not mark the horizontal episema that precedes it:

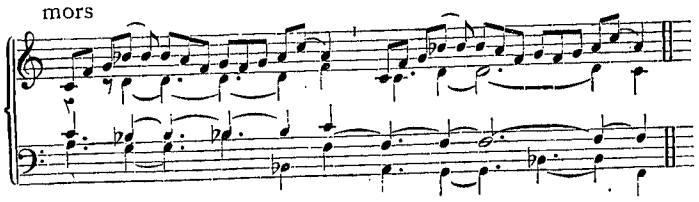


Here again, chordal changes are reduced to the minimum.

7) There is no point in altering the harmony chosen for the end of the jubilus, which automatically applies to *jam non moritur*:



8) The vocalise of *mors*, which is difficult to harmonize, contains two important rhythmic points: the B-flat which is doubled by the oriscus, and the A which ends the phrase. The B-flat (preceded by G) calls for G minor, and the A (preceded by C) for F major: for the beginning we are compelled to have F major, but we take the first inversion in order to have contrary motion between the outside parts; the melodic G is treated as an indirect anticipation of the subsequent chord. After that, melody and bass exchange notes, and on the bass B-flat we have, before the final note of the phrase, a double anticipation (A and C) — the seventh and the ninth respectively of the chord of B-flat:



No change is needed for the repetition of the melodic formula.

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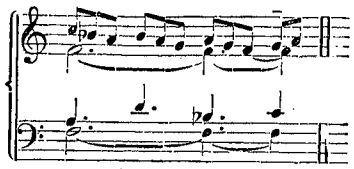
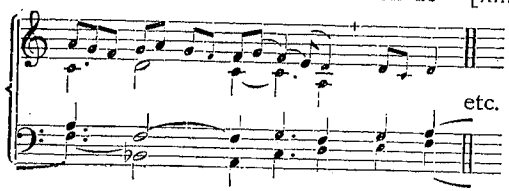
9) We can now hold F in the bass up to the end of the word. By using a six-four on this pedal, we still have the fundamental chord of F for the end of the phrase (post-ictic cadence), the G marked by the horizontal episema being an appoggiatura of the subsequent A :



10) In the cadence of *ultra*, notice that the principal ictus is on the pressus (see the Communion *Beati mundo corde*). Nevertheless we also mark the end of the word :

fíl- li ul-tra * non do- [minábitur.]



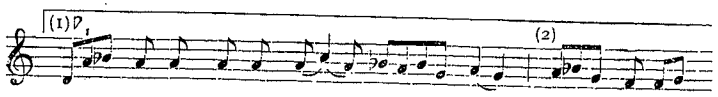
We now connect up, as we have already done, repeating the entire harmony of the end of the jubilus.

In this melody, we have strictly observed the laws of hexachordal harmony.

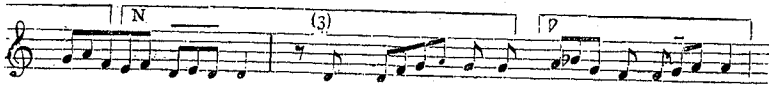
IV. Introit : Statuit.

(First Mass for a Confessor Bishop).

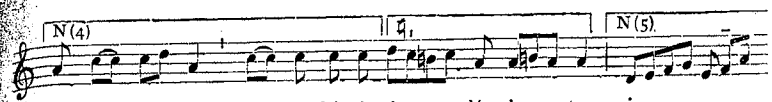
The Introit *Statuit* employs both B-flat and B-natural and thus makes use of all three hexachords; without admitting the authenticity of the flats, we cannot disregard them in our accompaniment :



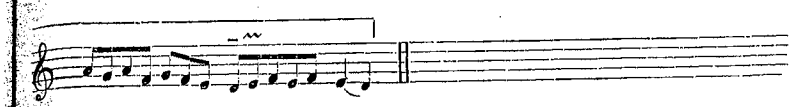
Stá- tu- it * é- i Dó- mi- nus te- staménn-



tum pá- cis, et prín- ci-pem fé- cit é- um :



ut sit fíl- li sa- cerdó-ti- i dígni- tas in



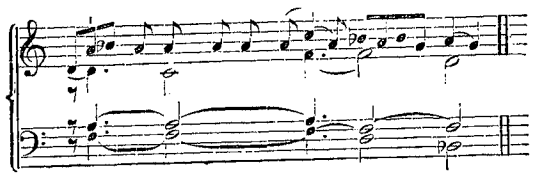
ae- tér- num.

Of course, all the B-flats could be treated as unessential notes, and in that way B-flat could be avoided in the accompaniment; but it occurs so often in the melody that we prefer to make the usual modal analysis and follow the harmonic principles we have enunciated.

1) First of all note the position of the vertical episema, and observe the cadence of *Dominus* (doubled clivis) which will come on the first inversion of G minor. The second syllable of *Dominus* will then have to have a chord other than G minor (e. g. D minor) so as to give the cadence its proper rhythm.

This settled, we naturally begin with D minor; if we use the first inversion, a slight movement will transform this chord into that of F major on the end of the word *Statuit*, for the sequel requires F major :

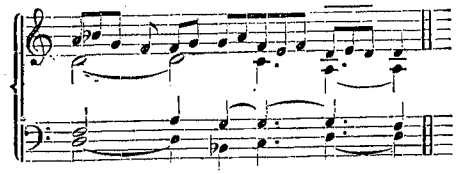
Stá- tu- it * é- i Dó- mi- nus



The pressus is marked by the movement of the alto, which is sufficient. B-flat does not come in the accompaniment until the end of *Dominus*, for we have to be careful not to exaggerate its importance in our harmonic interpretation.

2) Furthermore, we ought not to remain on G minor for the beginning of *testamentum*, nor on the other hand may we use E until it comes in the melody. Hence we begin with D minor (or F major). and the compound cadence (torculus-and-punctum at *bacis*) has the usual bass for such cadences :

te- staménn-tum pá- cis.



(B-flat is avoided as soon as the natural hexachord returns).

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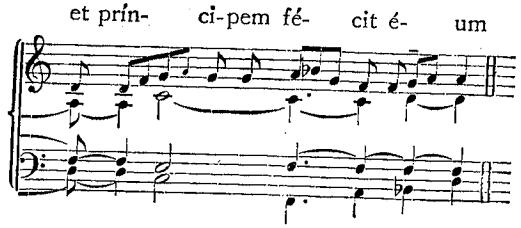
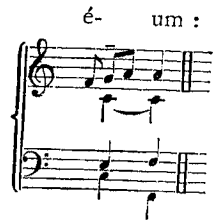
3) We cannot treat the two G 's at *principem* as unessential notes, yet we ought not to mark the weak syllable of a dactylic word (the second syllable of *principem*): in fact we maintain the principle that *the weak syllable of a dactylic word* (i. e. the penultimate syllable), *even though ictic, ought never to be marked in the accompaniment when it has only a single note in the melody.*

We therefore prefer to mark the G on the second compound beat of the accented syllable (although this solution, the only possibility, is not perfect), giving it the chord of C.

This links up very well with F major at *fecit;* as we return to the hexachord of B-flat, the ictus of the salicus requires G minor (first inversion), and we finish with D minor at the end of *eum* (F major again, would be monotonous). We therefore have:



Unquestionably the modulating tendency of the B-flats is very feeble, save perhaps at the end of *Dominus* (1). Nevertheless to use E (e. g. in the chord of C major) in the passages we have analysed as belonging to the hexachord of B-flat would produce a strong impression of a "leading-note", which is altogether opposed to the atmosphere of plainsong. To grasp this, it is sufficient to write:

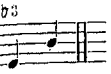


Even though the modulation is barely marked in the melody, the accompaniment must respect the modal rules — except in cases when we completely disregard the modulation by systematically avoiding B-flat.

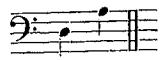
4) At *ut sit illi* we have indicated the natural hexachord, although no E occurs in the melody: for this passage without any semi-tone leads into the hexacord of B-natural and the accompaniment is practically bound to make the transition; otherwise the B-natural of *sacerdotii* will

(1) Besides, we have already expressed our doubts about the authenticity of the flats.

be extremely harsh, which it would not be if the melody were unaccompanied. *Sit* can therefore retain the chord of F (first inversion). The accent of *illi* can have the chord of A minor, and the end of the word the chord of D minor, suggested by the descending fourth of the melody. There is nothing else to worry about except the compound-cadence formula (torculus-and-punctum) of *dignitas*. Although in a protus cadence on D, B-flat is seldom important enough to justify the plagal cadence:

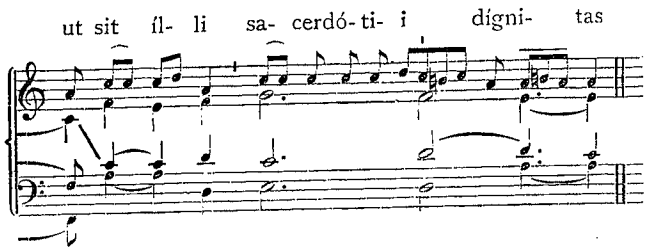


yet this secondary protus cadence on A will quite well allow:



because of the previous context, and in that way the melodic B-natural will be less harsh.

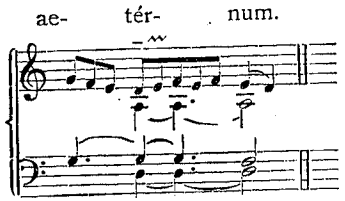
We therefore write:



The cadence of *dignitas* (1) is sufficiently emphatic to have the root position of A minor, in spite of the mere half-bar that marks it. Besides, it is only for tritus cadences, which are so easily "brutalised" by the accompaniment, that we have to avoid the root position except at final cadences.

5) The conclusion reintroduces the natural hexachord, in which we avoid B altogether, even B-flat. Notice especially the final compound cadence of *æternum*, where the bass D (on the ictus immediately before the quilisma) must be preceded by C or A.

The preparation of the tenor suspension leads to the doubling of the melodic G:



(1) Compare the previous cadence of *testamentum pacis*, of which this is a transposition a fifth higher.

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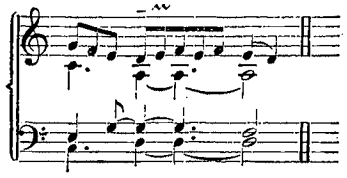
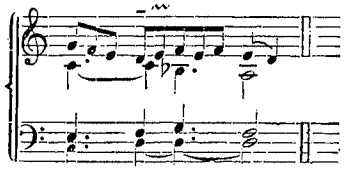
In fact, if the melodic G is not doubled by the tenor, the suspension, being unprepared, becomes an appoggiatura.

The following solution is defective from the rhythmic point of view :

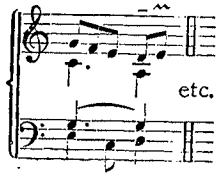


If we admit a discreet B-flat, the following cadence is possible :

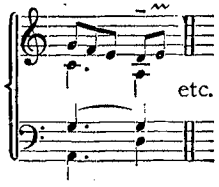


But it certainly weakens the character of the melody.

Again we could have :

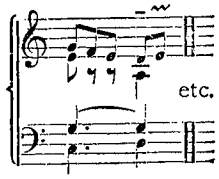


On the other hand, if the bass of the cadence-formula is A—D, the tenor G could be taken as a seventh :



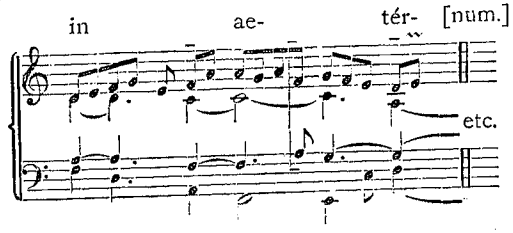
This doubling of the seventh is only momentary and the writing is sufficiently correct.

Finally there is the possibility of :



with a complication in the alto which is hardly noticeable at the key-board.

Looking back, we see that only D minor is suitable for *in*. We can make a chordal change on the ictus of the salicus and write the first inversion of F. And that links up with one of the proposed solutions for the cadence :

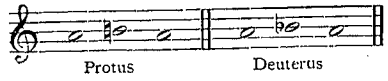


When we come to the other modes we shall have occasion to study at greater length the combination of the hexachord of B-natural with the natural hexachord.

V. Communion : Passer.

(Third Sunday of Lent).

The Communion *Passer* has its final on A. This is the only way to write it because of the modulation by which both the protus and the deuterus are established on a single tonic :



If the melody were written on D, it would be necessary to introduce E-flat for the deuterus. But neither the protus on A (hexachord of B-natural) nor the deuterus on A (hexachord of B-flat) prevents modulations to the natural hexachord : thus this Communion is a

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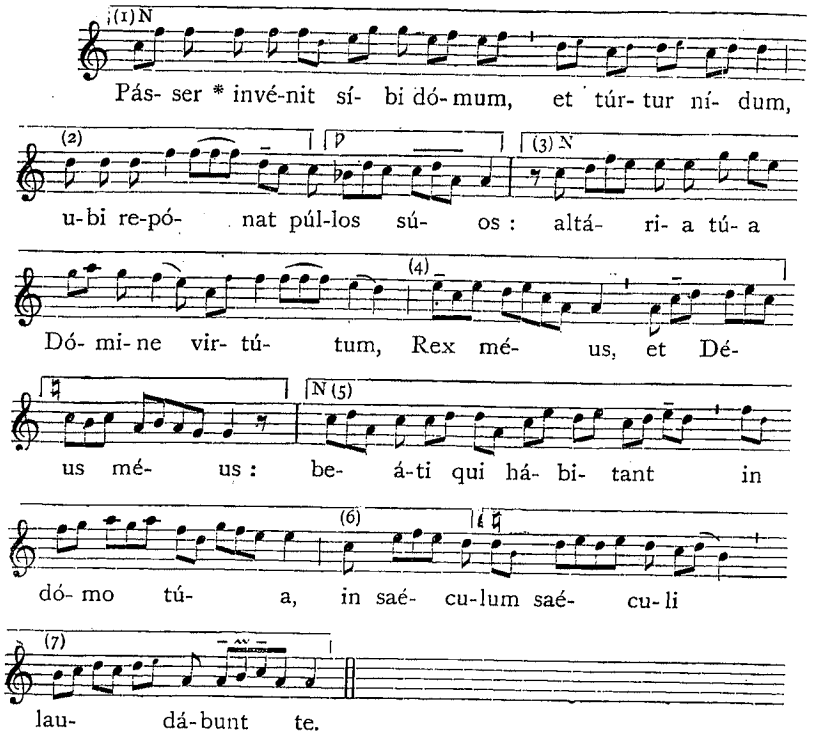
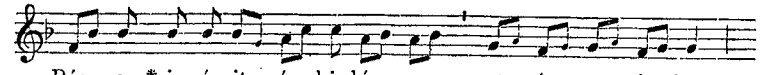
magnificent example to study, and we shall see that each of its important cadences is characterized by a clearly marked modulation :



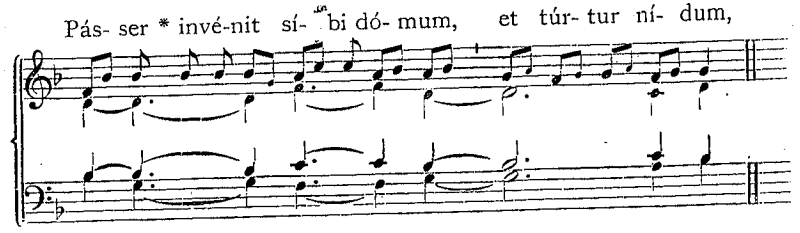
There is a half-cadence in the protus on D at *nidum*; a deuterus cadence on A at *suos*. A half-cadence in the protus on D at *virtutum;* a tetrardus cadence on G at *Deus meus*. A half-cadence in the deuterus on E at *domo tua;* the final cadence in the protus on A. That is how the melody is planned out by its modulations.

In practice we transpose this Communion a fifth lower; notice how at the same time we transpose the modal elements :

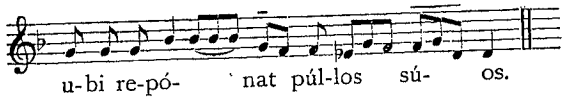


1) This phrase, being written in the original text in the natural hexachord, excludes both B-natural and B-flat from the accompaniment. Hence, a fifth lower, it excludes both E-natural and E-flat.

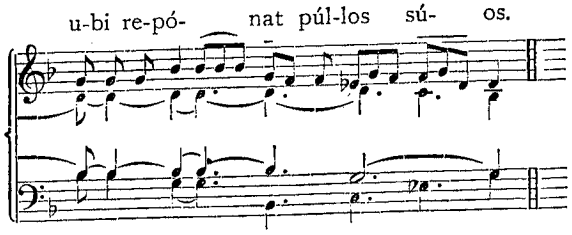
The intonation obviously implies the chord of B-flat (1), but the sequel up to *nidum* calls for G minor, with a transitional F major at *sibi*. That follows from the nature of the melodic intervals. From the rhythmic point of view, notice the end of *Passer* (which is also the end of the intonation), the end of *domum* (a post-ictic cadence), and the end of *nidum :* all three can come on the chord of G minor, with intermediate chords at *sibi* and before the end of *nidum*. That presents no difficulty.



2) From the beginning of this next phrase, E (in the original) is avoided; but as B-flat does not come until later on, the modulation to the hexachord of B-flat is not determined until *pullos*. The transposition gives us :



As soon as possible we avoid A (the equivalent of E in the original), which is strictly forbidden for the modulation of *pullos suos*. This deuterus cadence must have the chord of G minor. Harmonically speaking, the plagal cadence is required : therefore we need C minor before G minor. This chord will be very well placed on the second syllable of *pullos;* but we shall have to keep it at *suos*, and treat the F as an unessential note : in order to give this note (beginning of *suos*) the character of an appoggiatura, we put E-flat in the bass (first inversion of C minor) :



Notice the alto suspension, which occurs naturally and provides an excellent link between the chords (2).

(1) If we read G for the first note, we recognize the characteristics of mode III and this impression is confirmed by the cadence at *suos*. From the paleographic point of view, the initial fourth should be a third (compare the Responsory *Omnes amici* of Holy Week).

(2) At the end of *reponat* the F must not be treated as an unessential note (the principle for post-ictic cadences); besides, this F is repeated.

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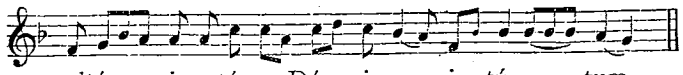
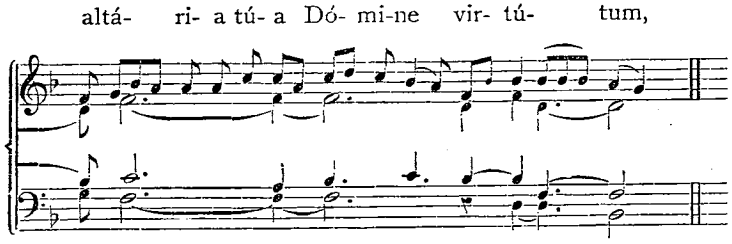
3) Immediately we return to the natural hexachord (no B), which in the transposed version becomes :



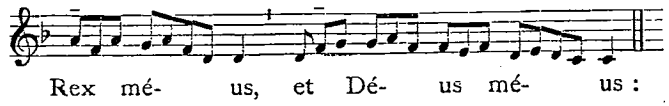
The first inversion of G minor is required for the cadence of *virtutum* (a doubled clivis) : therefore do not introduce this chord on the previous syllable; on the other hand the end of *Domine* is a post-ictic cadence, and for that reason we treat the pressus as an appoggiatura of the subsequent note.

For the beginning, G minor would suit well enough; but F major, which the word *tua* requires, would then have to be put either on the end of *altaria* — in which case there would be a double anticipation — or on the previous ictus (last note of the torculus), where it would break the unity of the neum. The best plan is to treat the first two notes of the torculus as appoggiaturas (upper and lower) of the third note; the bass is then much simpler and the rhythm better; a six-four chord (on a short pedal) — or a passing-note in the tenor — enables us to give the end of *Domine* its rhythmic importance :

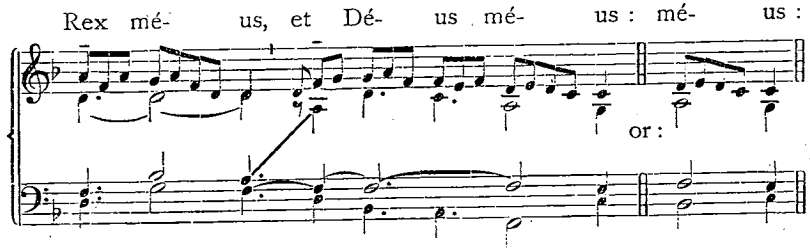


We are not obliged to mark the " repercussions " (whether at *reponat* above or at *virtutum* here) ; nevertheless we have modified the disposition of the chord, doubling the bass in order to give the D the importance of a fundamental and to make the B-flat sound like a sort of appoggiatura of A. The chords seem to be better linked up that way.

4) The semi-tone of the natural hexachord is now avoided in order to lead quite naturally to the hexachord of B-natural, and the cadence of *meus* is obviously a tetrardus on G. In the transitional passage and even in the hexachord of B-natural, transitional chords containing F are possible because of the connexion with the natural hexachord (see Part I on this point). By transposition, this F becomes B-flat :

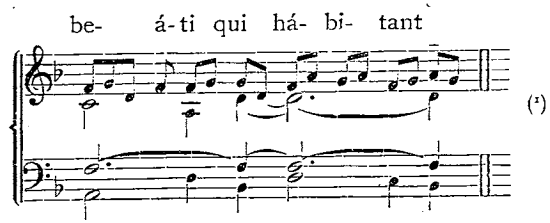


D minor is required at *Rex meus* : nevertheless we must see that we give it its rhythmic importance at the end of *meus* (by means of an intermediate chord of G minor). Then we must wait for E (the equivalent of B-natural) to come in the melody before we introduce it in our accompaniment. The rest presents no difficulty :

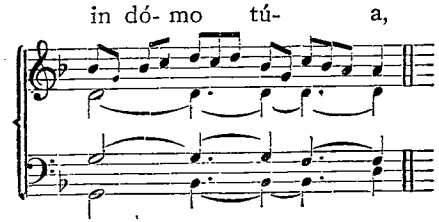


5) The return to the natural hexachord is carried out very cautiously in the sense that the whole of the first phrase lacks any semi-tone and by this very fact belongs as much to the hexachord of B-natural as to the natural hexachord. Nevertheless we take good care to avoid B-natural because the melodic insistence on D and the descending fourth rather favour the natural hexachord. Consequently the post-ictic compound cadence of *habitant* has the first inversion of D minor on the horizontal episema (G minor by transposition).

Thus we have :



The natural hexachord is clearly determined at *in domo tua* : D minor is required, with a cadence by means of C major or A minor, i. e. in our tranposition, G minor or B-flat major followed by D minor, thus :



(1) We mark the final clivis especially, on account of the horizontal episema; but a passing-note (C in the bass) marks the beginning of the final syllable.

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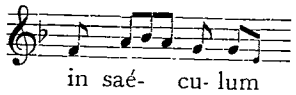
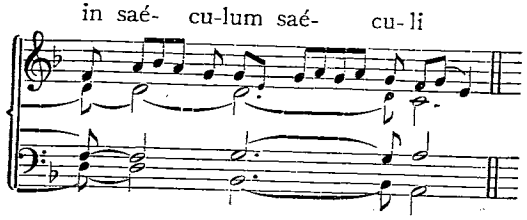
6) The melody now leads to the hexachord of B-natural, very discreetly at first at *sæculum*, then decisively at *sæculi*. We must therefore take care not to use B-natural too soon.

Here is the transposed version :

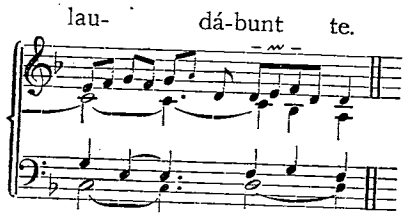


If the chord of C is written immediately on the end of the word (E is here the equivalent of B-natural), it comes as a surprise and even seems to introduce an undesirable "leading-note". It is therefore better to treat the E as an unessential note (a changing-note, implying F); the rest of the phrase presents no difficulty, but the chord must come on the end of *sæculi* (this is a different case from the pressus we noticed in the Communion *Beati mundo corde*) :



7) Finally, we have to consider the compound-cadence formula (protus on A, hexachord of B-natural); its accompaniment is facilitated by the possibility of F (by transposition, B-flat), which has been heard so often all through the melody.

Two chords suffice (C major and D minor in our transposition):

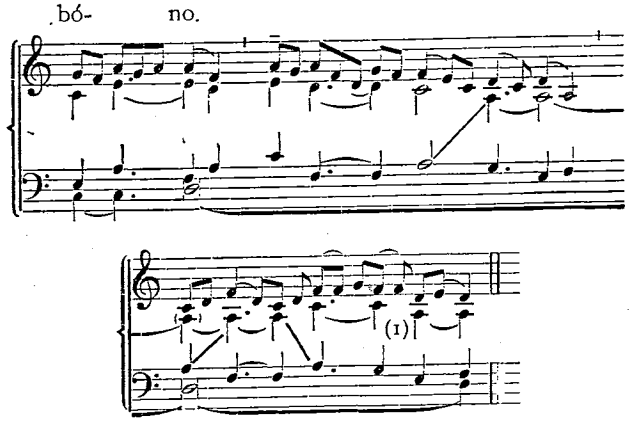


This melody, which is so easy to sing *a cappella*, is often made unsingable by the organ accompaniment, i. e. by a faulty modal analysis or by a complete absence of analysis. We believe that the accompaniment we propose does not misrepresent its character and that it would not embarrass the singers, precisely because it follows the melody step by step.

To conclude this practical study of the authentic protus, we now give an example of a tonic pedal in order to show that B-flat (which would allow the use of chords of six-four and of the second, making a pedal on D much easier) is not indispensable. Indeed, if we want a strictly

hexachordal accompaniment, we can have on a pedal D, first the chord of D minor itself, then that of F (generating a chord of the seventh), that of A minor (generating a chord of the ninth), and finally the chord of C (forming a chord of the eleventh); moreover, these sevenths, ninths and elevenths enjoy the freedom they usually have on pedal-points, for the text-books tend to regard a pedal as a sort of unessential note, the chords above it maintaining their autonomy.

The tonic pedal is especially useful in final cadences when the last syllable has a rather long vocalise: in such cases the tonic D, placed in the bass on this syllable, is maintained to the end of the melody. Here is the end of the verse of the Gradual *Timete Dominum* (All Saints) :



(1) Here the melodic F implies E (an unresolved appoggiatura).

Generally speaking, there can be no doubt that hexachordal harmony lacks variety and that the introduction of the seventh note of the heptachordal scale provides very great facilities. Nevertheless experience proves that the accompaniment proposed for the Introit *Exsurge*, for example, contains nothing unexpected, and that, without possessing any intrinsic interest, it interprets the melodic line as faithfully as possible: if immediately afterwards we try the other method, using B-flat, we are forced to recognize that the modal character is thereby singularly enfeebled.

2. — The Plagal Protus: Mode II.

I. On D. Responsory: Collegerunt *(Blessing of Palms).*

Melodies in mode II are very often written entirely in the natural hexachord. Apart from transposition, the harmonic material is exactly the same as for the Introit *Exsurge*, already examined, and for numerous passages of other melodies in the same hexachord for which we have used a purely hexachordal accompaniment. There is no need to go over the ground again. Nevertheless we must notice certain passing B-naturals and B-flats which do not perceptibly influence the modal character.

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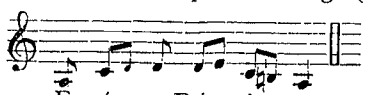
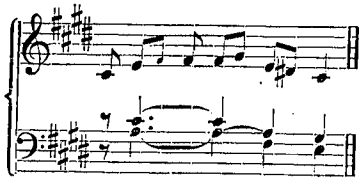
Here is the intonation of the Antiphon *Exsurge* (Rogation-days):

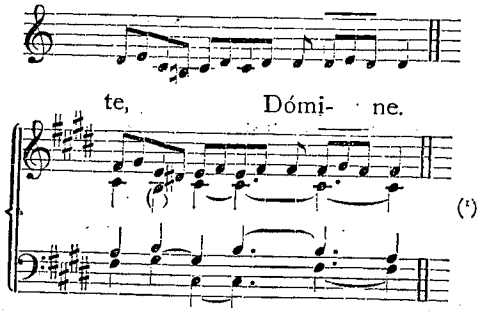


The modulation is very clearly marked, but it goes no further: hence we treat the B-natural as an unessential note:

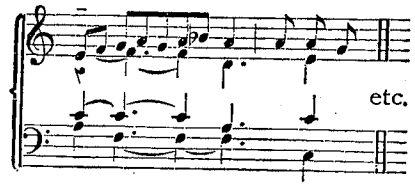


(In this transposition, D-sharp represents B-natural in the original).

The final cadence (identical with that of the first main division) of the Offertory *De profundis* (Twenty-third Sunday after Pentecost) contains a B-natural which is much more fleeting and which should not be emphasized in the accompaniment:



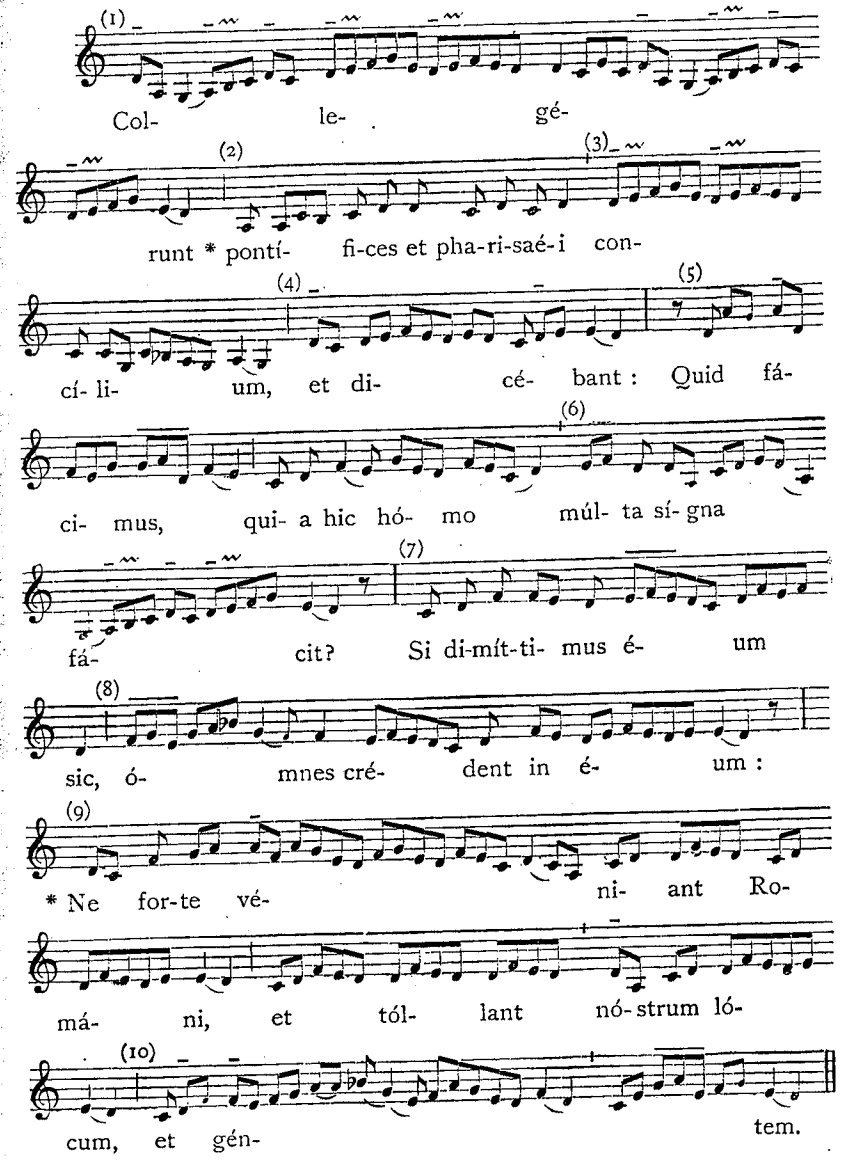
On the other side, the Antiphon *O doctor* contains a solitary B-flat (whose authenticity is more than doubtful) which must be disregarded in the accompaniment:



(1) Of course, the D-sharp can be considered as a harmony-note. But the chord of E (first inversion) placed on the previous note, robs it of this character. Similarly, in the previous example *(Exsurge)* we could understand a first inversion of a chord of the diminished fifth. In reality both the E and the D-sharp are passing-notes (F-sharp being implied after the G-sharp) on the single chord of F-sharp minor.

Nevertheless we must be careful not to allow it to come on the chord of C major. But in the sequel, as we see, E may very well intervene in the alto. In such cases, therefore, the same restrictions obtain as if we were in the hexachord of B-flat, but only while B-flat comes in the melody.

The Responsory *Collegerunt* contains both B-flat and B-natural in the lower region of the scale: it is therefore a very typical example:



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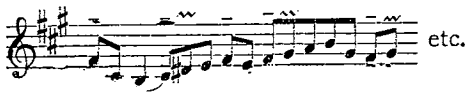
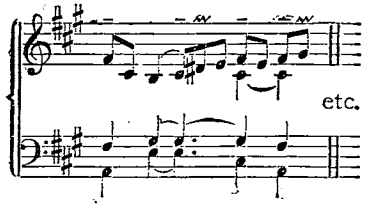
Strictly speaking, none of the lower B-naturals modulates. On the other hand the B-flat of *concilium* clearly modulates to the hexachord of B-flat. The upper B-flats, at *omnes* and at *gentem*, are very fleeting and can be disregarded. Hence the modal analysis is very simple and we do not indicate it.

We transpose the melody a third up (onto the final F-sharp). In consequence our accompaniment will contain no D-sharp (the equivalent of B-natural). At the cadence of *concilium*, D-natural (equivalent of B-flat) is obligatory and G-sharp (equivalent of E) is forbidden. Although the two upper B-flats do not modulate, they justify the use in the immediate context of B-flat in chords of movement (D-natural, in our transposition). For all the rest the accompaniment is hexachordal: our fundamentals are therefore: F-sharp minor, A major, C-sharp minor, and E major.

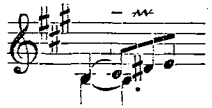
1) The beginning is not easy to harmonize:



The descending fourth of the melody indicates F-sharp minor; the B can have nothing but E major. In our accompaniment we must avoid fifths, for we already have C-sharp in the melody, then B — both of them being fifths of the two fundamentals which are indicated as the only possibilities. On the other hand, of the two notes immediately before a quilisma, the first is the more important, so that if in this case we do not wish to change the bass on the second, we must choose E. The initial chord of F-sharp minor must therefore be inverted in order to avoid fifths between the outer parts. We take the subsequent F-sharp as an appoggiatura of E (to take it as a harmony-note would mean the chord of F-sharp minor again). This gives us:

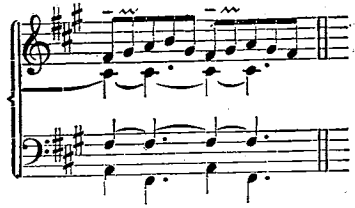


The low position of the melody prevents us from bringing in the alto at once.

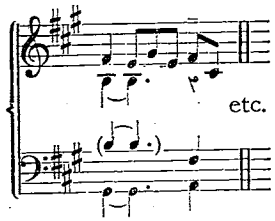
At a pinch however we could have: 

The two subsequent quilisma-formulas, which are very much alike, strongly emphasize the initial tonic and repudiate any other chord. In order to avoid the feeling of rest, this chord is inverted, but the only

possible movement in the bass is an alternation between the first inversion and the root position:

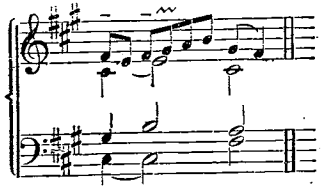


Then in order to mark the change of syllable, we change the chord; the melodic F-sharp (D in the original) must be taken as an appoggiatura of the subsequent note, and this leads quite naturally to the initial formula which the melody then repeats:



But if we make no alteration in what follows, we shall arrive at the cadence of the word (compound cadence formed by a doubled clivis) without the possibility of a chordal change, which would be a grave error.

We therefore reserve F-sharp minor for the cadence and continue with C-sharp minor, thus:



It is of minor importance that the last chord is in root position instead of being inverted, although the melodic cadence is not conclusive: we have already pointed out that harmonic cadences in the protus are not very decisive and that the fundamental chord can be used for simple half-cadences of the melody.

It will be seen that this long intonation presents a number of serious practical difficulties.

2) By way of contrast, the next little phrase presents hardly any. Of course we avoid marking the D-sharp (B-natural) and breaking the unity of the torculus on the accent of *pontifices*, so that beginning with

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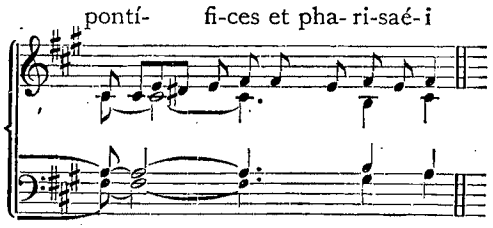
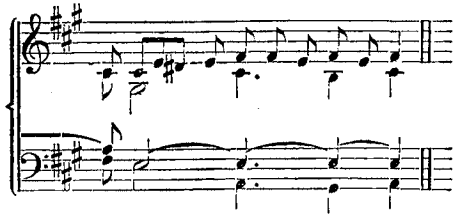
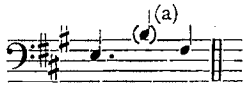
the root position of F-sharp minor we could end with the first inversion after an intermediate G sharp :



But the melodic D-sharp clashes with A in the tenor, and to avoid this it would go better on a chord of C-sharp minor or E major. Hence we write :

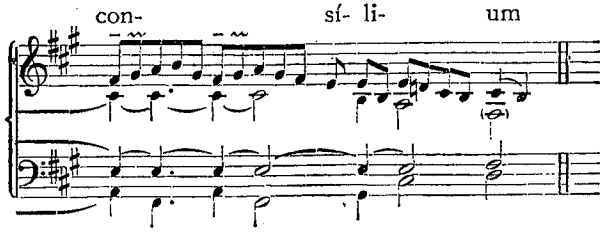


To avoid the added sixth, which is excellent however, the tenor might go thus :



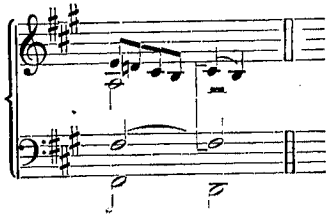
(a) in unison with the alto

3) The two following groups, which have occurred before, will have practically the same harmony, but the tenor pedal can be maintained as a seventh. The melodic fourth C—G (E—B by transposition) at once indicates its natural chord. But this chord (E major in our transposition) cannot afterwards be maintained because it is excluded by the modulation to the hexachord of B-flat (1). We therefore adopt A major or F-sharp minor, and then establish the subsequent half-cadence on the first inversion of B minor :

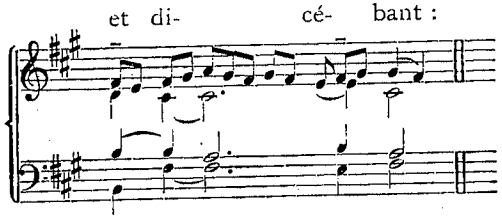


(1) The melodic B-flat excludes the chord of C, and the cadence must be accompanied by the first inversion of G minor.

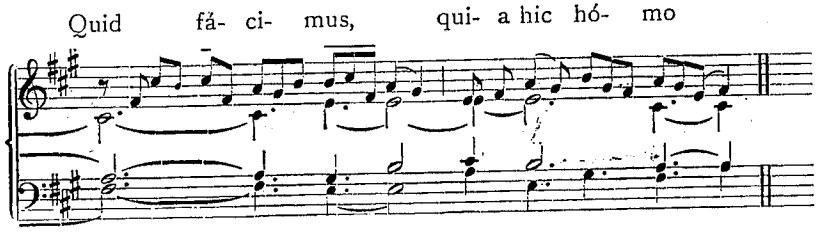
The bass leap G-sharp—C-sharp (with a chord of the sixth on G-sharp) is not elegant and must be "corrected" at the beginning of the next phrase ; but we could have :



4) At the beginning of the next phrase we can keep the chord of B minor, which will naturally change to F-sharp minor on the beginning of *dicebant* because we now return to the main hexachord. The ictus of the salicus must be treated as an unessential note, because the chord of F-sharp minor (the only possibility) has to be reserved for the cadence (a compound cadenee formed by a doubled clivis). We therefore have :



5) At *quid facimus* the tonic chord is very clearly indicated by the melodic contour; but the lengthening of the torculus on the end of the word indicates a thesis on the first note of the group at the expense of the subsequent pressus ; hence, for the B of the last syllable (G in the original), we choose the chord of E major ; this chord is maintained till the end of the syllable, but a subsidiary movement in the tenor preserves the appoggiatura-character of the pressus. What follows offers no great difficulty, but in accordance with our general principles, the chordal change comes on the last syllable of *homo* and not on the last note :



6) In order to have the maximum number of harmony-notes, we maintain the chord of F-sharp minor until the last syllable of *signa*,

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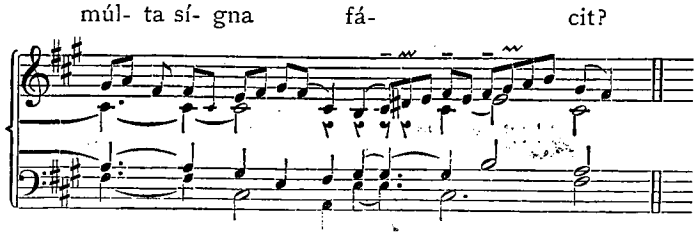
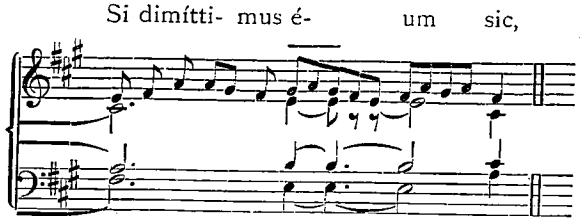
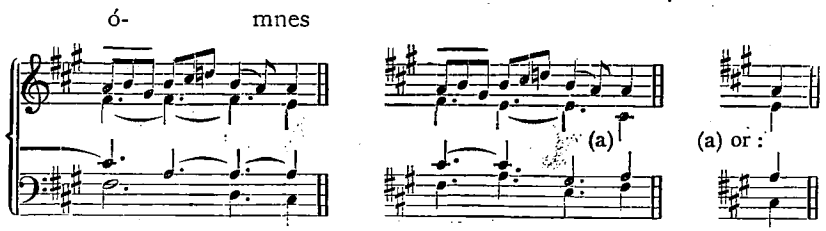
which has C-sharp minor; we now link up with the formula already written for the intonation, which provides the cadence of *facit:*



7) The next phrase offers no difficulty except the cadence at *sic;* since this cadence requires the first inversion of F-sharp minor, we carefully avoid this chord at the end of *eum*, otherwise it loses its rhythmic importance at *sic;* that is why the first two notes on the last syllable of *eum* have to be treated as unessential notes:

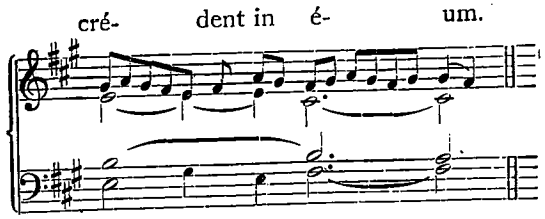


8) The B-flat at *omnes* must obviously be treated as an unessential note, but afterwards (on the pressus) it is possible to use B-flat in a chord of movement (D-natural here represents B-flat in the original). On the other hand, since the modulation counts for nothing, E (G-sharp in our transposition) can intervene afterwards. Hence we have the following two versions:



But above all we must not let D-natural occur on the chord of E. And if we use D in the accompaniment, it must occur first in the melody.

The sequel has to lead up to the greater compound cadence, which is easy:



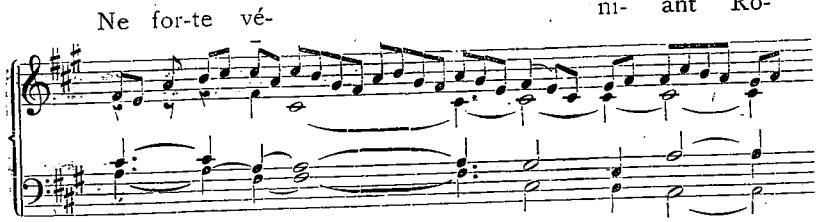
At a pinch, the previous context might justify a passing D in the alto:

without altering the other parts.

9) There in nothing special as far as *et gentem.* Nevertheless we do not consider the cadence at *Romani* nor that at *locum* as compound cadences, in spite of their likeness to that of *eum* above: this melodic turn occurs frequently in this section (the end of *veniant* and *Romani*, then at *et*, on both syllables of *tollant*, and finally at *locum*) without giving the tonic the importance we have observed in certain compound-cadence formulas. Nevertheless the whole section indicates D minor: hence there must be a secondary chord before each important ictus that requires a special chord, viz. the beginning of *veniant*, and the endings of *veniant*, *Romani* (doubled clivis), *tollant* and *locum*.

So if we begin with the chord of F (1), D minor comes at the beginning of *veniant* and continues until the pressus, which (treated as an appoggiatura) has the chord of A minor; we return to D minor for the end of the word; the end of *Romani* (which also requires D minor) demands that the first two notes of the second syllable be treated as unessential notes on the chord of C major or A minor, otherwise there would be no subsequent cadence in the accompaniment. The same applies to the end of *tollant* and the end of *locum*, where we simply have to repeat the same harmonies.

Remember that by transposition D becomes F-sharp, A becomes C-sharp etc., etc.:



(1) This refers to the original text given above, not to the transcription which follows.

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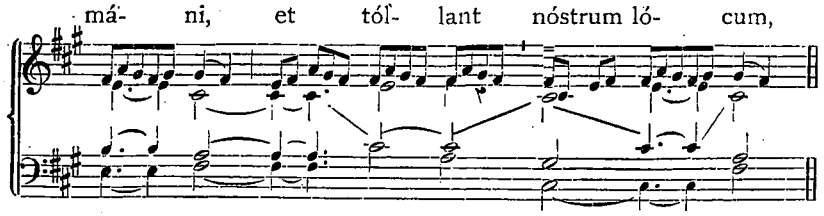
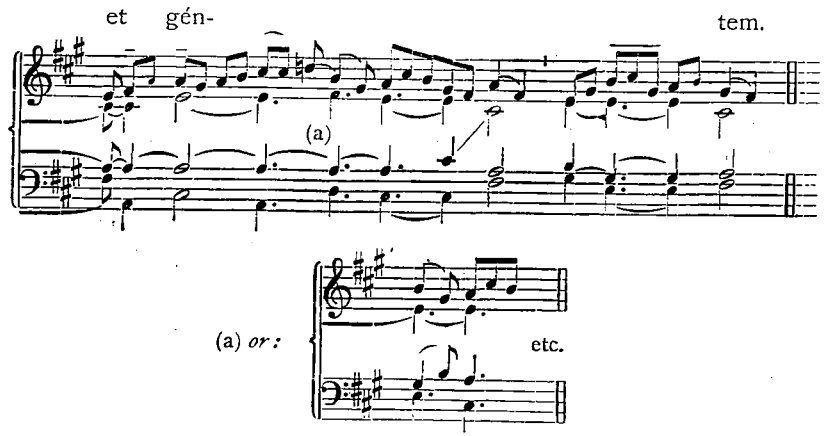


This accompaniment is not free from monotony; but the melody itself lacks variety; besides we have reduced our chordal changes to the minimum.

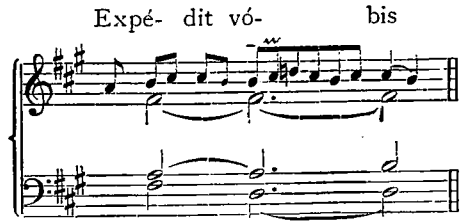
10) The last section of the melody contains a B-flat (D-natural by transposition) which we treat as an unessential note on F major or D minor (i. e. A major or F-sharp minor), but which subsequently justifies *ad libitum* the use of the same note in transitional chords. Points to mark are: the beginning of *gentem;* the pressus which follows the B-flat (both with chords of movement); the pressus before the quarter-bar which (together with the subsequent note) acts as a doubled clivis; and finally the concluding cadence (doubled clivis).

Up to the quarter-bar, the appropriate chords are D minor and F major (i. e. F-sharp minor and A major); but the pressus after the B-flat (D-natural) must have the first inversion of G minor (B minor) or C major (E major); after the quarter-bar, the usual cadence is required, with the bass moving by step:

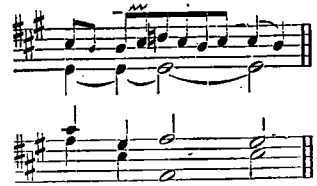


The verse (*Unus autem*) presents the same elements as the first part of the Responsory. Notice the modulation at *illius*, similar to that at *concilium* above; the accompaniment should be very restrained throughout, especially in the reciting passages (*cum esset pontifex*). The B-flat of *vobis* can be treated either as a harmony-note or as an unessential note, and the end of the word can have either G minor (first inversion)

or C major. The latter would facilitate the beginning of *ut unus* (B minor, representing G minor; E major, representing C major):



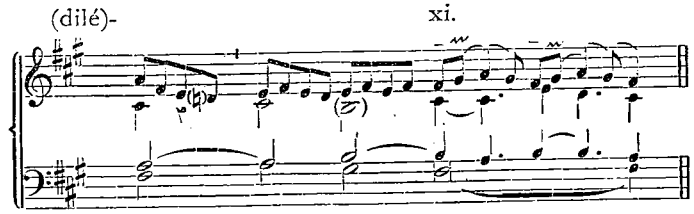
(greater compound cadence)



(the cadence-formula is broken up [1])

II. On A. Gradual: Justus (*Common of a Confessor not a Bishop*)

A very large number of melodies in mode II are written on A, not only in cases when the alteration of the semi-tone would have required an E-flat in the usual position (on D), but also in cases where the melody, if written in the usual position, would have descended to the low B flat: to this note they preferred F, and so they adopted A as tonic. This is the case in the Offertory *Meditabor* (Second Sunday of Lent), which concludes thus:



And so, in our transposition, D-natural may come in the alto over the tonic pedal.

Similarly the Offertory *Dextera Domini* (Maundy Thursday, Finding of the Cross) has at the end of the intonation a modulation to the fifth below the tonic, exactly like that of *concilium* in the Responsory *Collegerunt*. But the Responsory uses both B-natural and B-flat and therefore has to be written on D; if the Offertory were written on D, it would have the low B-flat at *Domini*, which becomes F when the melody is written on A. We must also mention the Communion *Cantabo* (Second Sunday after Pentecost) in which the B-flats of the intonation and of *Domino* clearly determine the hexachord of B-flat.

The most complete type of mode II on A is the Gradual *Justus ut palma florebit*. The modulation is not to the fifth below the tonic, but to the fourth above. Furthermore, the B-flat of *cedrus* (of doubtful authenticity, by the way) requires that the melody be written on A: this B-flat

[1] Short as the modulation is, it is nevertheless very clear and quite according to the habits of the mode (Cf. the Gradual *Justus*). Hence the first solution is far preferable.

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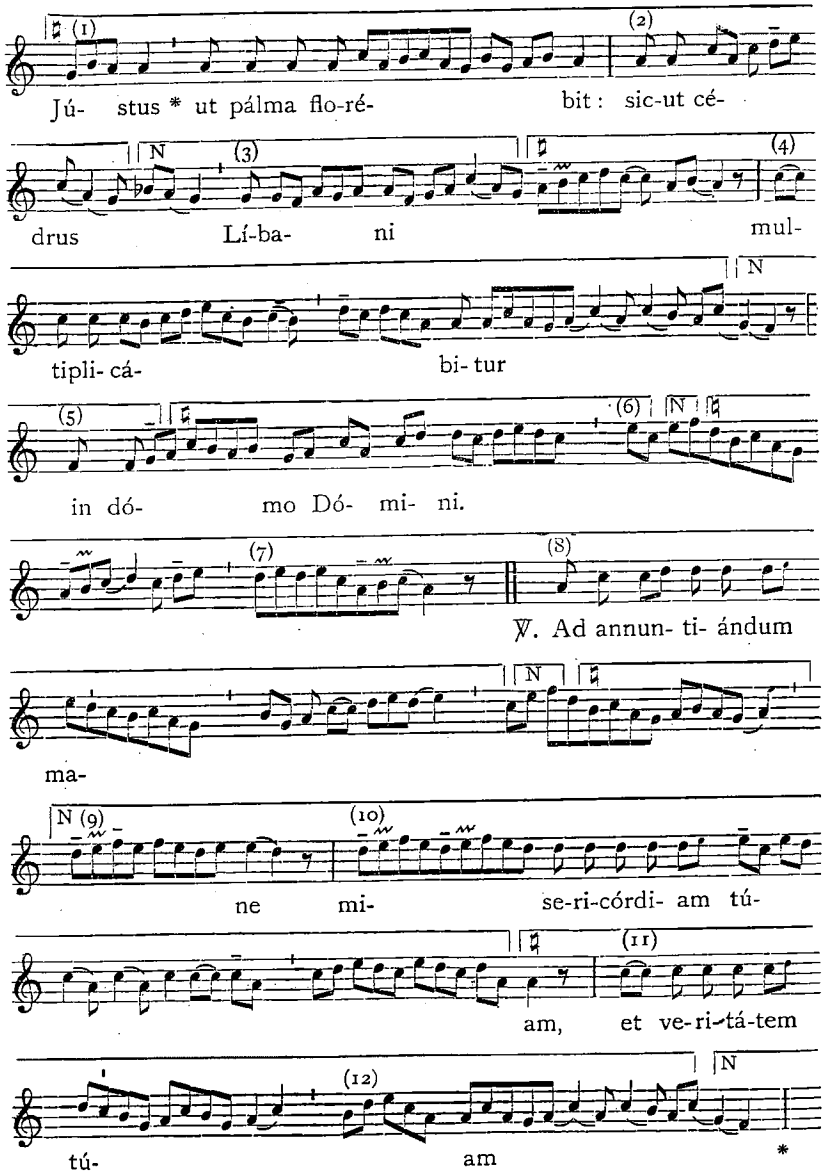
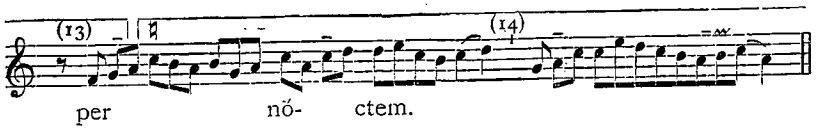
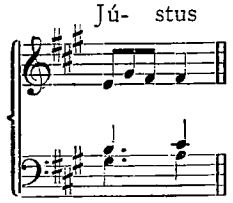
should be completely disregarded both in our modal analysis and in our accompaniment. We have the hexachord of B-natural pivoting on A as tonic, then, a fourth higher, the natural hexachord pivoting on D as tonic. In the hexachord of B-natural, transitional chords containing F (D minor and F major) are possible in view of the general context, but not until the melody has introduced this note:



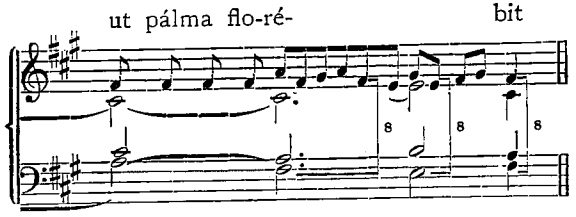


We transpose this down a minor third, onto the final F-sharp. Hence in the hexachord of B-natural (the main hexachord here) our guide is the semi-tone G-sharp —A; D-natural is allowed in chords of transition (B minor and D major) because of the context, but only after this note has occurred in the melody. Modulations in the upper register to the natural hexachord are determined by the semi-tone C-sharp—D, and in this hexachord G-sharp is forbidden. In the lower register, cadences on D (F in the original) belong to the natural hexachord, because the note is then established as a note of rest.

1) The mode of the intonation is indefinite. For if it were a degree lower it would belong to the tetrardus. Since we must of necessity choose either major or minor, we lead up to the first inversion of the minor chord on the end of the word:



Up to the end of *florebit* the melody calls for the tonic chords. We must therefore introduce a secondary chord before the end of the word (E major or C-sharp minor) so that the chord of F-sharp minor may retain its rhythmic importance:



We have marked the octaves between the outside parts. Nevertheless we regard them as tolerable because the E here is merely ornamental and does not coincide with a change of chord. C-sharp minor would be possible instead of E major; but then the bass, with its fall of a fourth and return to the tonic, would be very clumsy.

2) No change is needed before the ictus of the salicus. Here we must take care not to use D minor (B minor in our transcription) which up to this point is foreign to the melody: G major (E major) is the

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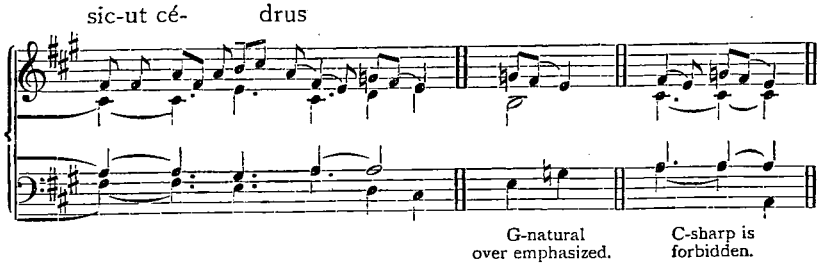
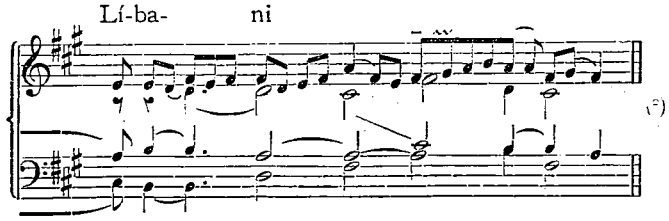
appropriate chord. The B-flat must be treated as an appoggiatura of the subsequent note. In our opinion this B-flat does not justify the previous use of F major (D major) for the reason already given. This chord will only appear on the B-flat itself, and the final G (E) will have C major (A major), so that the B-flat is completely disregarded : (1)



3) The rise of the melody at *Libani* indicates the chords of D minor or F major; then A minor is demanded because of the B-natural. Hence, by transposition, we have B minor, D major, F-sharp minor; the ictus to mark are: the second syllable and the last syllable of *Libani*, then the pressus, and the cadence (which we treat as a compound cadence); the ictus before the quilisma and the ictus before the oriscus have less important movements in the accompaniment; the oriscus (which is weak) allows us to establish a plagal cadence-formula, as may be seen :



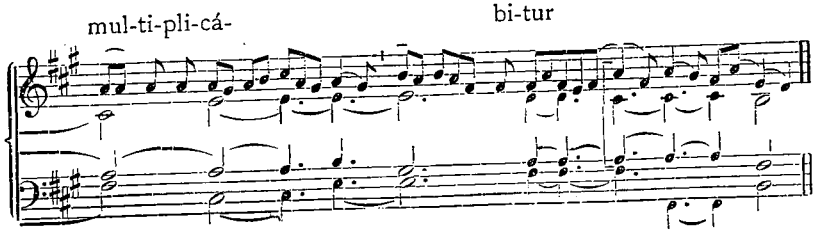
The general context justifies D-natural in chords of movement (i. e. in the original, a transitional F in the hexachord of B-natural).

4) The beginning of *multiplicabitur* naturally comes on the chord of F-sharp minor as it stands. But we must mark the vocalise on the accented syllable. This A (by transposition) therefore has the first inversion of A major (the only possibility after F-sharp minor). The quarter-bar invites us to treat the pressus as an appoggiatura (with the chord of E major in our transposition) and the same chord leads easily

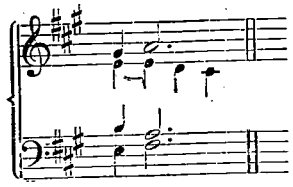
(1) Nevertheless C major is impossible while B-flat occurs (i. e. by transposition, A major is impossible while G-natural occurs) because of the modal rules governing the hexachord of B-flat.

(2) Is this formula a compound cadence? It is a question of interpretation. With a slight *rallentando* the first F-sharp does seen to have the principal ictus. Otherwise we adopt the other interpretation.

to the last syllable on which we must write the tonic chord. We mark the subsequent pressus without changing the bass. For the final pressus (which together with the subsequent note acts as a doubled clivis) we do not consider F major (original key) suitable, especially in its root position which would determine a much too emphatic tritus cadence. This type of cadence is frequent (especially in the tetrardus : see the interior of Tracts in mode VIII). Before a full-bar, as here, it is better to have an interrupted cadence : hence we write B minor, representing D minor in the original key. (Before half-bars, we can use either D minor or the first inversion of F major; an inversion is too unstable before a full-bar.) :



With the help of a passing D in the alto and an octave leap in the bass, all the important ictus are marked. If the melody had not happened to touch E, we might have had a 7—6 suspension in the alto, which is sometimes both possible and practical, thus :



We shall find the application of this later.

Nevertheless we always reduce our chordal changes to the minimum.

5) Apart from an extremely fleeting modulation to the upper hexachord (the natural hexachord), the whole of the next section belongs to the hexachord of B-natural. In the key we have chosen, a passing D-natural is permissible, according to our general principles, because of the context.

We have to mark : the ictus of the salicus, and the end of *Domini*. At each of the two quarter-bars we choose a chord suitable to the final note (post-ictic cadences) so as not to treat it as an unessential note.

Finally we must not overlook the ictus before the first quilisma and the subsequent doubled note; and in particular we must notice the very typical compound cadence which concludes the first part of this Gradual.

The tonic chord predominates throughout. But the beginning of the vocalise on the last syllable of *Domini* naturally demands G major in the

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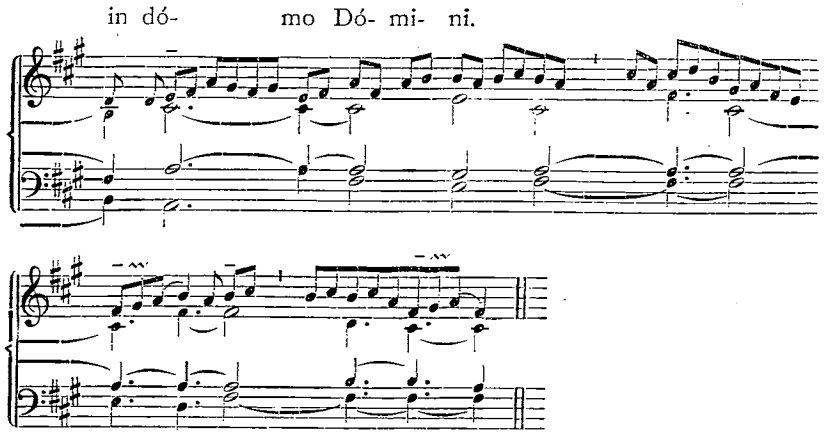
original (E major in our transposition) rather than D minor (B minor) which would be too emphatic here and which in any case is needed as a secondary chord.

Of course, during the short excursion into the upper hexachord, G-sharp (representing B-natural) is forbidden.

Having settled these details, we once again reduce our chordal changes to the minimum :



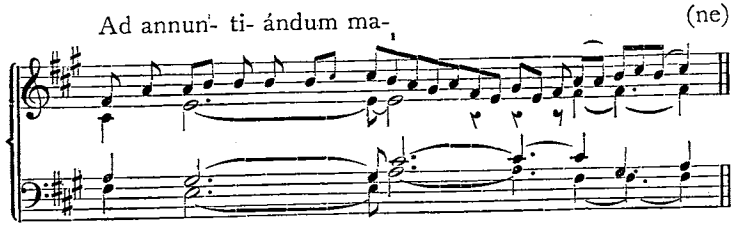
Twice we use D-natural in a chord of movement : the first time in the bass where it follows a passing-note marking the ictus before the quilisma ; the second time in the alto of a six-four on a short tonic pedal, the fourth of the chord (in the tenor) being the preparation of the usual suspension. It will be seen that this note (D-natural), used with discretion, does not alter the general character of the melody (1).

8) We come now to the verse. The first period is almost entirely devoted to the vocalise of *mane* (first syllable). Apart from a very fleeting modulation (like that of *Domini* above) it is in the hexachord of B-natural, except in the last phrase where a modulation to the natural hexachord is established by a very clear cadence (protus, on D in the original, on B in our transcription). Hence at the beginning, D is only possible in a very discreet chord of movement ; but in the last phrase. G-sharp is excluded as a harmony-note.

At the outset notice the reciting-note D (B in our transposition). Rather than change the initial chord of F-sharp minor on the third (weak) syllable of *annuntiandum* and thus have a triple anticipation, we put the chord that suits this reciting-note on the second syllable of the word, treating the first note as an appoggiatura of the second. Now this chord must be E major, not B minor (which here could only be a

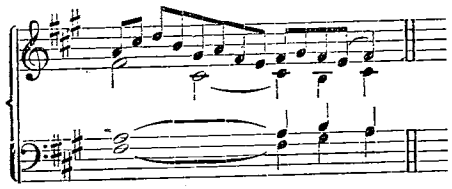
(1) In order to avoid the D-natural before the second quarter-bar, we could write E major, followed by A major. But then the sequel would be more heavily laden.

chord of transition). Then we mark the beginning of the long vocalise of *mane :*

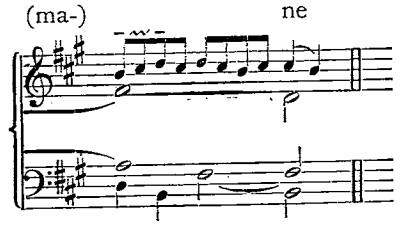


In our opinion, the distropha on the A demands a chord rather than the subsequent C-sharp, which we mark with a simple movement of the tenor.

It is simplest to put all the rest on the chord of F-sharp minor. Then G-sharp in the bass, with a chord of the sixth, leads to the first inversion of F-sharp minor before the modulation of the last phrase :



9) This phrase permits only one essential chord : B minor (in our transposition); but since we need it for the cadence, we must introduce another intermediate chord (F-sharp minor). On the other hand, this cadence is far from conclusive; but would a first inversion be suitable before a full-bar which also indicates a simple beat of silence? Both solutions are faulty. We stand by our principle and write the fonda-mental chord :



10) But now there is no doubt : on the ictus before the quilismas the chord must be inverted and must be maintained on the recitation as far as the first syllable of *tuam.* On this word we use only a single chord : F-sharp minor; but we must mark the pressus-groups and the final syllable.

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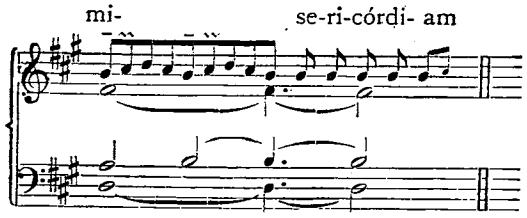
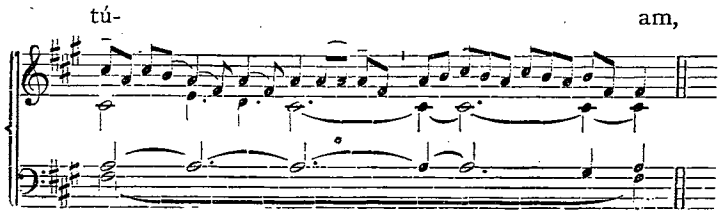
Here first of all is *misericordiam :*



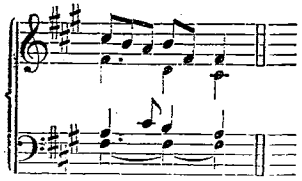
The tenor and bass fifths (after what precedes) are not of great importance. They are on the same fundamental (B). We could write B in the tenor immediately, but the rise from A to B marks the ictus before the second quilisma — an unusual resolution, but a very musical one. On the first syllable of *tuam* we put F-sharp in the bass. The whole passage belongs equally to both hexachords, since there is no semi-tone : nevertheless the principal ictus of the melody clearly foreshadow a return to the main tonic, and the cadence establishes it decisively. All the same, a passing D-natural would be quite normal.

We are thus able to mark the long notes merely by the movement of the alto, thus :



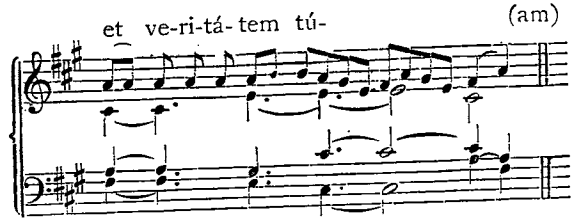
The alto E is attacked as an appoggiatura, descends to D, then to C-sharp; the subsequent repercussions are disregarded (there is no need to mark them : in such cases it is generally the first long note that is the most important).

The cadence is marked merely by the movement of the tenor, which is obviously the minimum. Nevertheless this auxiliary-note gives sufficient character to the general harmonic effect for the final chord to retain its rhythmic importance. Besides, it would be very clumsy to change the bass note, by introducing (for example) the chord of E on the melodic B. But if we use D-natural we can have :



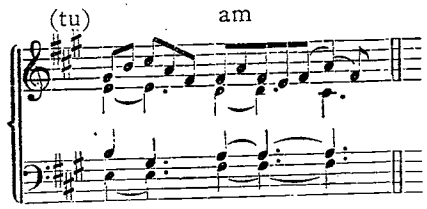
11) Apart from the cadence of *tuam*, the next phrase belongs to the hexachord of B-natural (with the possibility, because of the context, of a passing D-natural — F-natural in the original — in the accompaniment).

We naturally begin on the existing chord; but in order to avoid two unessential notes repeated on the same degree, we change on the end of *veritatem*, taking the second note as a harmony-note (chord of E major). Then we have to mark the beginning of the word *tuam*, which has a very important vocalise. F-sharp minor being reserved for the doubled podatus before the quarter-bar, we have no choice but to put C-sharp in the bass, which almost compels us to have :



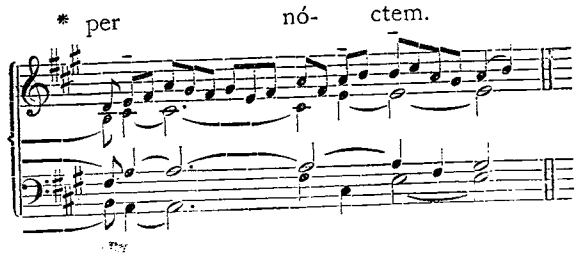
Notice that we always avoid, as far as possible, any chordal change during a vocalise as long as it presents no salient point (beginning of *tuam*).

12) As we have to return to F-sharp minor for the end of the word, we must introduce E major after the quarter-bar, with two anticipations before the change of chord, one indirect, the other indirect. After that we have only to repeat textually what we have written for the end of the word *multiplicabitur* in the first part of the Gradual :



etc. (see above.)

13) What follows again copies what we have already written. At *noctem*, however, it is a good plan to mark the horizontal episema of the first syllable. The end of the word requires E major. We must avoid two chords for the doubled podatus. Here is a possible solution :



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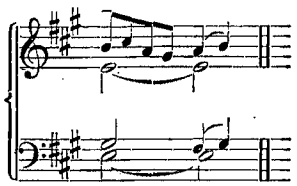
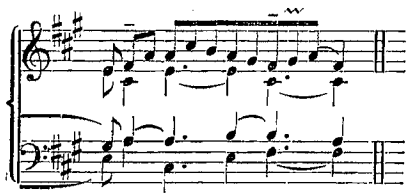
If the end appears somewhat harsh, we could have :



The F-sharp in the tenor, although theoretically a mere auxiliary-note, has sufficient character to leave the principal ictus on the A of the melody.

14) For the concluding formula our only concern is to lead up to the usual formula for the compound cadence, with a tenor suspension.

We must therefore introduce the chord of E major before the final chord of F-sharp minor, which presents no particular difficulty :

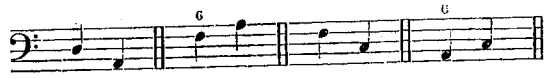


CHAPTER II.

THE DEUTERUS.

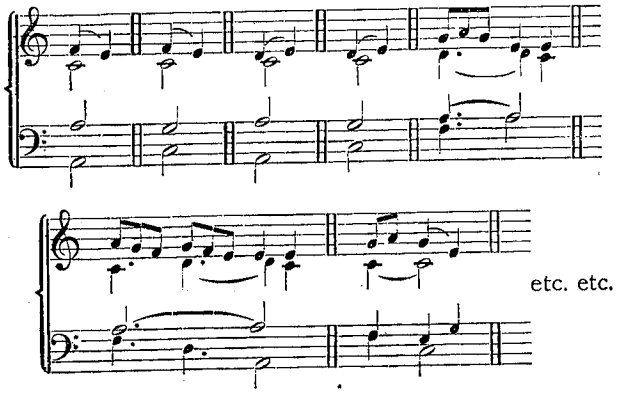
We have already explained briefly why the final chord of a deuterus on E must be A minor or (more rarely) C major. As the deuterus is sometimes written on A and on B, the cadence-formulas are then automatically transposed to the fourth and to the fifth.

The only suitable harmonic formula is the plagal cadence, thus :



All the melodic formulas fit one or other of these basses, as we shall see.

For compound cadences we have, for example :



On principle we prefer A minor to C major, the relationship between the fundamental (A) and the upper part (E) being simpler (physically speaking) than the relationship of the third; moreover the melodic context usually suggests this choice. On the other hand the melody sometimes indicates C major rather than A minor. We shall give examples of this later.

1. — The Authentic Deuterus: Mode III.

What characterizes mode III is the constant interplay of the natural hexachord and the hexachord of B-natural, i. e. of the lower and the upper registers of its scale. B-flat is very rare in mode III and should be viewed with suspicion; hence it should be treated, as often as possible, as an unessential note.

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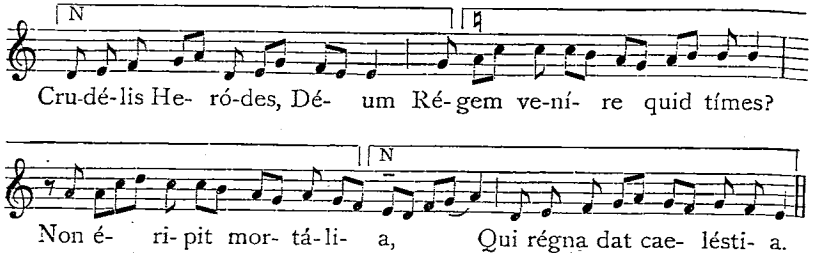
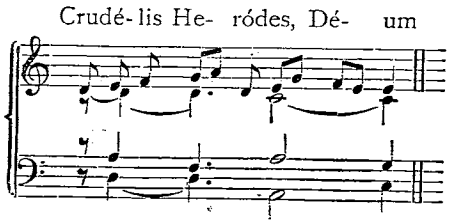
I. Hymn : Crudelis Herodes

Even short melodies like the Hymn *Crudelis Herodes* employ modulations from one hexachord to the other, and in a very noticeable fashion :

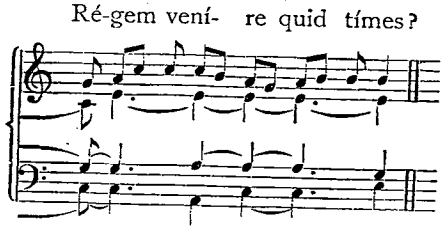


Here it is impossible not to perceive the tonal importance of the low D, first at the beginning, then at the end of *mortalia*, and again in the last line. By the correct application of our modal principles we avoid any dangerous incongruity.

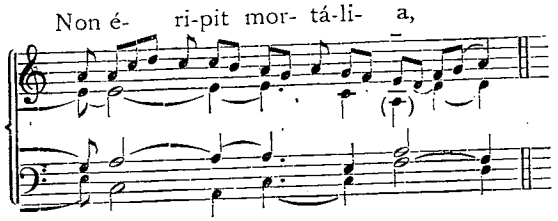
The melodic shape of the first line, rising from D to A, indicates the chord of D minor. Of course, the ictus fall neither on D, nor on F, nor on A ; but the ictus indicate the position of the chords, not necessarily their nature ; their nature depends on the melodic line. On the other hand, we choose C major for the end of *Deum* because *Regem* begins on G. If we prefer not to pass straight from D minor to C major, we can put the chord of A minor on the end of *Herodes*, thus :



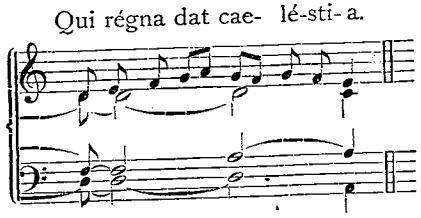
The second line presents no difficulty ; in modulates to the hexachord of B-natural and obviously demands A minor (certainly not F major, which may only function in this hexachord as a chord of transition). The end of *times* can have either G major or E minor ; we prefer the latter because of the importance of E in the melody. With some "exchanges of note" between melody and bass, we arrive at the following :



What follows can come on the chord of A minor, returning at the end of *mortalia* to D minor : these two chords are sufficient :



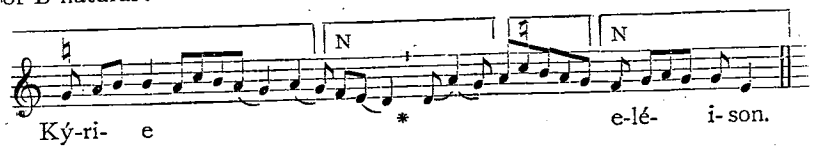
For the last line, which echoes the melodic curve of the first line, we continue on D minor and conclude with A minor :



We thus have the minimum of chordal changes. For all analogous cases the following should be noted : (i) for the natural hexachord, the "relative" (1) chords of D minor and F major ; (ii) for the hexachord of B-natural, the relative chords of E minor and G major ; (iii) the chords common to both hexachords, A minor and C major. Chords proper to the natural hexachord may be borrowed in the hexachord of B-natural as chords of transition, if the context allows, but not conversely.

II. Kyrie of Mass II.

The Kyrie of Mass II, on the other hand, begins in the hexachord of B-natural :



The beginning indicates G major or E minor. But we must mark first the end of the word and then the end of the melodic group before the pressus. Hence the full harmony will not intervene until the end of the word ; and if we adopt E minor, the first inversion of G will be

(1) In modern terminology, the keys of F major and D minor are said to be "relative" to one another.

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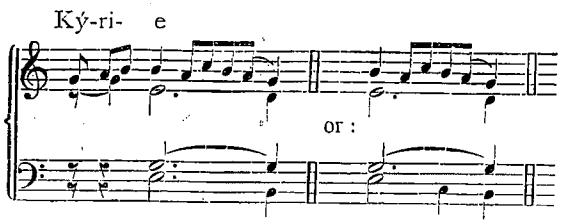
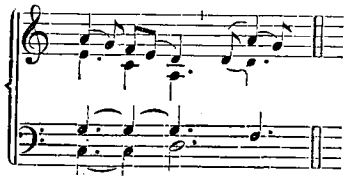
suitable for the G which ends the first melodic group, with or without an intermediate chord :

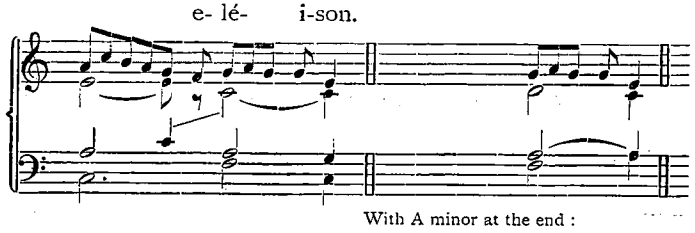


By using a neutral chord (C major or A minor) and avoiding a chord of rest on the pressus, we proceed to the chord of D minor which the end of the phrase requires :

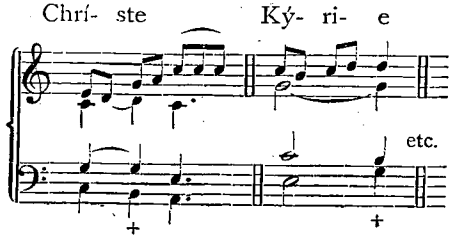


But with a tenor suspension resolving on the subsequent pressus we avoid too definite an impression of a cadence and maintain the movement.

The melody now makes a fleeting return to the initial hexachord and then establishes a cadence on E. The chord of A minor will do perfectly well for the hexachord of B-natural ; but with regard to the cadence, the importance given to the G invites us to conclude with C major ; be careful not to put this chord on the accent of *eleison*, for this is a simple cadence ; so the two G's before the final E are to be treated as unessential notes :



The rest of this Kyrie is comparatively easy to accompany. But notice the word-endings which have to be marked :

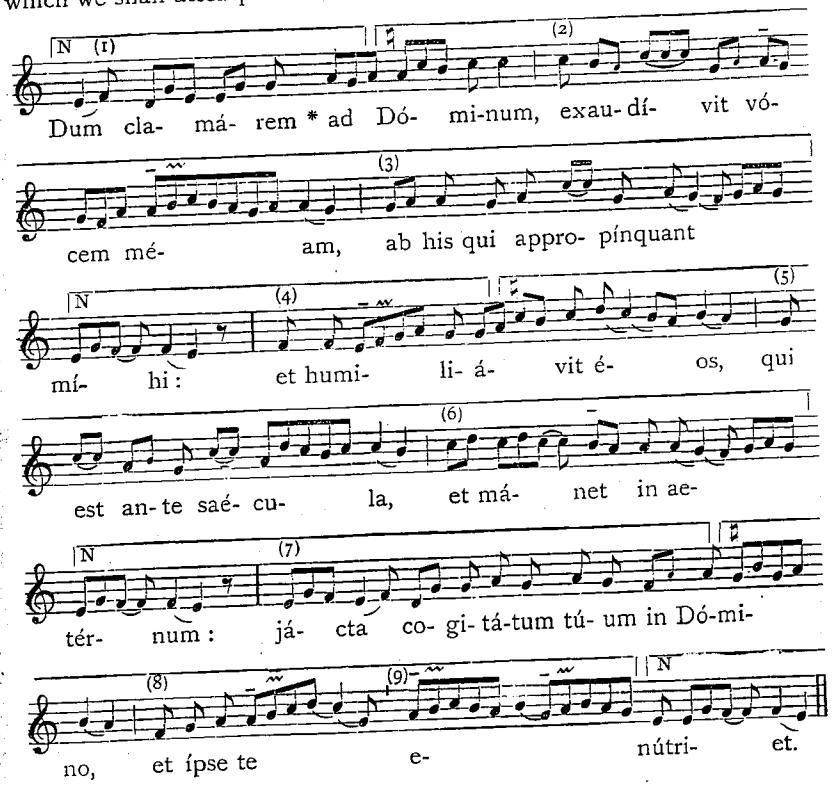


These two examples (the Hymn *Crudelis Herodes* and Kyrie II) epitomize the essential characteristics of mode III. We now examine some longer melodies.

III. Introit : Dum clamarem

(Tenth Sunday after Pentecost).

Here, first of all, is the Introit *Dum clamarem*. On the whole it belongs rather to the hexachord of B-natural ; but its intonation and its three main cadences belong to the natural hexachord, as well as a few short passages. Otherwise it presents a number of peculiar difficulties which we shall attempt to solve with the aid of our modal principles :



1) The intonation is difficult to accompany : the formula also occurs elsewhere (cf. the Communion *Beatus servus*, below). The rising fourth (D—G) will support neither G minor (this is absolutely clear) nor indeed G major : B-natural has not yet appeared in the melody and the melodic third (F—D) excludes it from the accompaniment where it would at once figure as a modern "leading-note". That is precisely why it is

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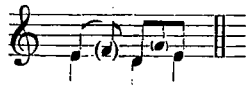
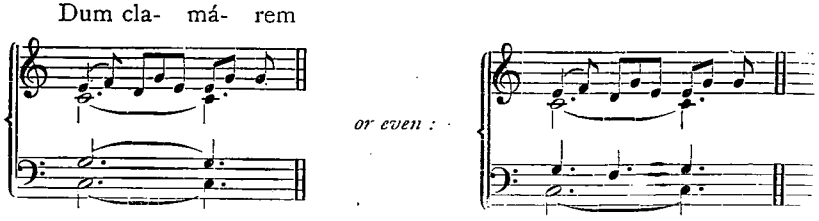
forbidden by our modal laws. If the D of *clamarem* is treated as a harmony-note (on D minor), the G and the subsequent E will be unessential notes (anticipations of the chord of C which will follow) : this solution is acceptable (in this case we require the first inversion of D minor on the beginning of the word). But we could also treat the D as an unessential note (an auxiliary-note of E) :

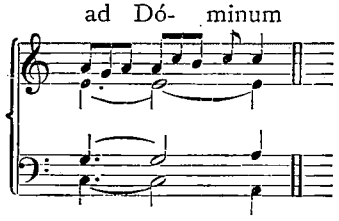


And if we adopt the chord of C for the beginning, both the G and the E will be harmony-notes. We prefer this solution to the preceding because it allows a simpler accompaniment :



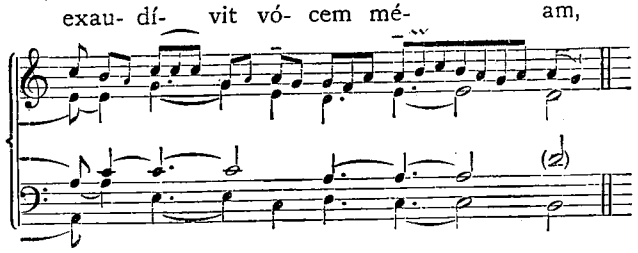
In the last example, the auxiliary-note in the tenor, by changing the nature of the chord, has the advantage of giving the low D the character it normally has in this mode.

In what follows it is as well to maintain the chord of C major, giving the end of *Dominum* (which must be marked by a new chord) the chord of A minor :

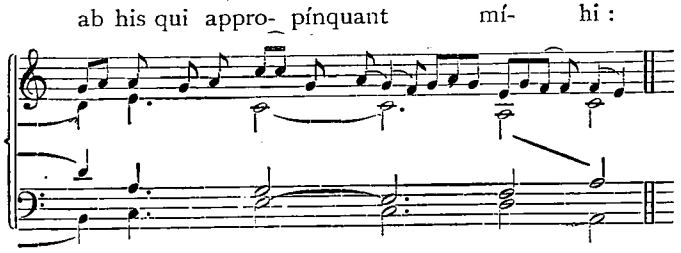


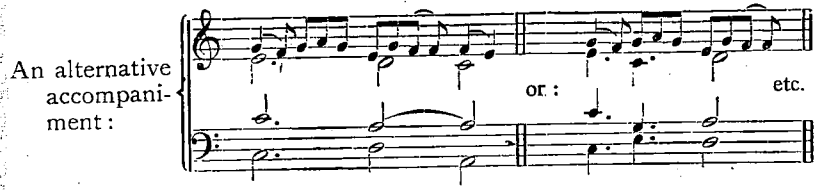
2) Notice the tristropha of *exaudivit* ; if, as is right, we begin the phrase with the existing chord (A minor), C major will do for the tristropha (the first inversion, so as to avoid giving the impression of rest on a long note). In addition the subsequent G is quite naturally included in the same chord. The episema of *vocem* is marked by the first inversion of A minor ; on the last syllable of the word the chord of D minor allows both the F and the A of the melody to be treated as harmony-notes, and then the chord of A minor (first inversion) will suit the vocalise on the first syllable of *meam*, with no further change until the doubled clivis at the

end of the word : here we can have either E minor or the first inversion of G major :

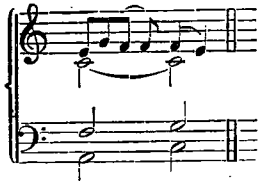


3) Once again the first inversion of C major is required for the distropha of *appropinquant*, because of the melodic fourth C—G. But as the end of this word is in full movement, the pressus must be content with a subsidiary movement in the bass, supporting the same chord in root position. At the cadence of *mihi*, in order not to break the unity of the neum, we prefer to put D minor on the beginning of the word and thus treat the E and the G as appoggiaturas of F : the chord of A minor follows naturally. Here is the phrase :





The chord of C would suit this cadence perfectly because of the previous context. For the end of our first solution, for example, we could have :



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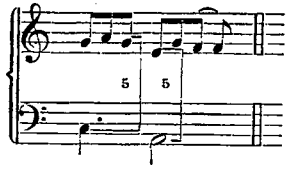
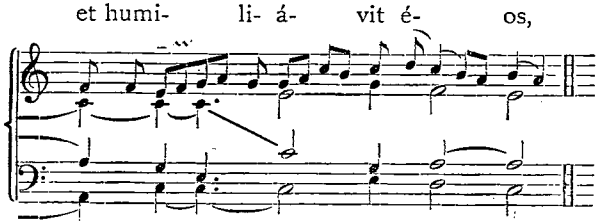
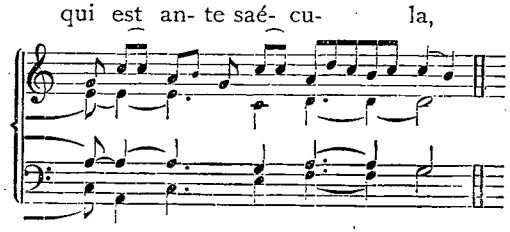
The first E of this last formula is an appoggiatura and so there is no need to worry about the fifths between melody and bass:



4) The two consecutive G's of *humiliavit* suggest the chord of C major, which fits the entire word without appreciable alteration, and since the end of *eos* (doubled clivis) must have the first inversion of A minor, if at the end of *humiliavit* we have E in the bass, these two chords can be linked up by D in the bass — the F in this chord being amply justified (in the hexachord of B-natural) by the immediate context. Hence we write:

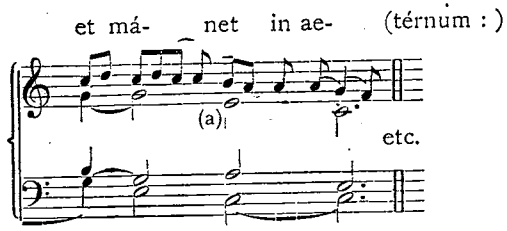


5) The same chord (A minor) follows, in spite of the melodic fourth G—C; for if we adopt C major there will have to be an immediate change at *ante;* on the other hand the first inversion of C major does very well for the distropha of *saecula.* The melodic fourth A—D invites the chord of D minor, although we are in the hexachord of B-natural. But this chord, leading to G major for the end of the word and of the phrase (compound cadence with doubled clivis), remains a chord of movement and is justified here by the general context:

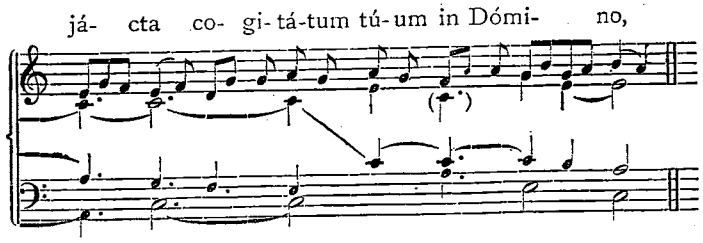


6) The end of *manet* requires attention, for it forms a sort of lesser post-ictic cadence on account of the degree of autonomy the word seems to possess. We therefore treat the B as an appoggiatura of A, in accordance with our rules. The sequel is analogous to *appropinquant*

mihi, and there is no reason for altering the accompaniment already proposed. We therefore write:



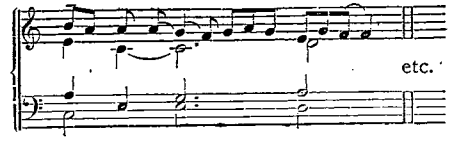
7) At the end of *jacta* we find the same procedure as in the intonation. We solve the difficulty in the same way and stay on the bass C. But when we come to the B-natural of *Domino* we must remember that if B-natural were to occur in the accompaniment before the melody introduced it (e. g. on the first G of the melody) it would be rather "brutal" — for we have just come from the lower register (from the natural hexachord) and it is not our business to anticipate the modulation. On the other hand, the end of *Domino* demands the first inversion of A minor (C in the bass). The bass E is therefore almost the only possibility before that point; but on this bass we first write a chord of the sixth, so as to avoid using B-natural before it comes in the melody:



The bass lacks elegance; but this consideration is subordinate to the requirements of the melody.

8) Notice the monosyllable *te;* the ictus before a quilisma ought wherever possible to be marked by a chordal change. If we adopt the first inversion of A minor, as we have already done for the end of *Domino,* we must have a transitional chord on the first syllable of *ipse,* which is heavy. The fact that F occurs in the melody justifies the

(a) or even :



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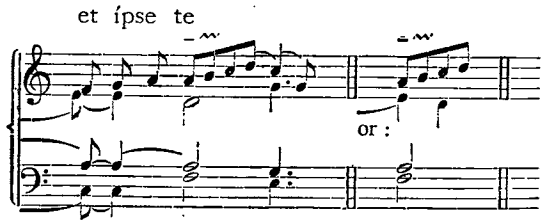
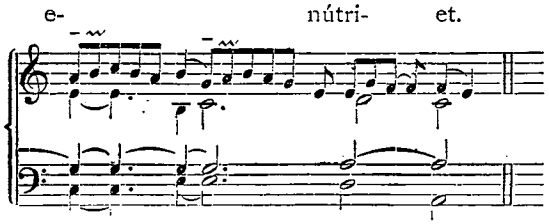
chord of D minor for *te*, and this will be followed on the pressus by the first inversion of C (1), indicated by the melodic fourth C—G. We therefore have :

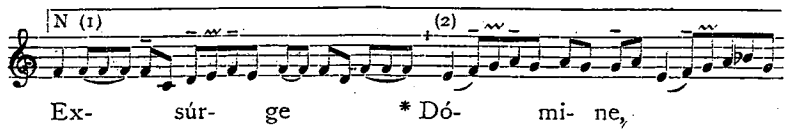


9) In the concluding phrase, the first quilisma-formula indicates A minor, and the second E minor or G major. But as we approach the cadence we must take care not to preserve the memory of B-natural near the chord of D minor which precedes the final chord of A minor. And so, having chosen the chord of E minor, we transform it, without altering the bass note, into the first inversion of C major. In this way the chords are linked up without difficulty. We must remember that the melodic elements are much more fleeting than the harmonic elements, because every chord lasts at least as long as a compound beat ; for this reason we often have to use neutral chords (common to both hexachords) instead of butally setting side-by-side the characteristic chords of each hexachord. Hence we write :

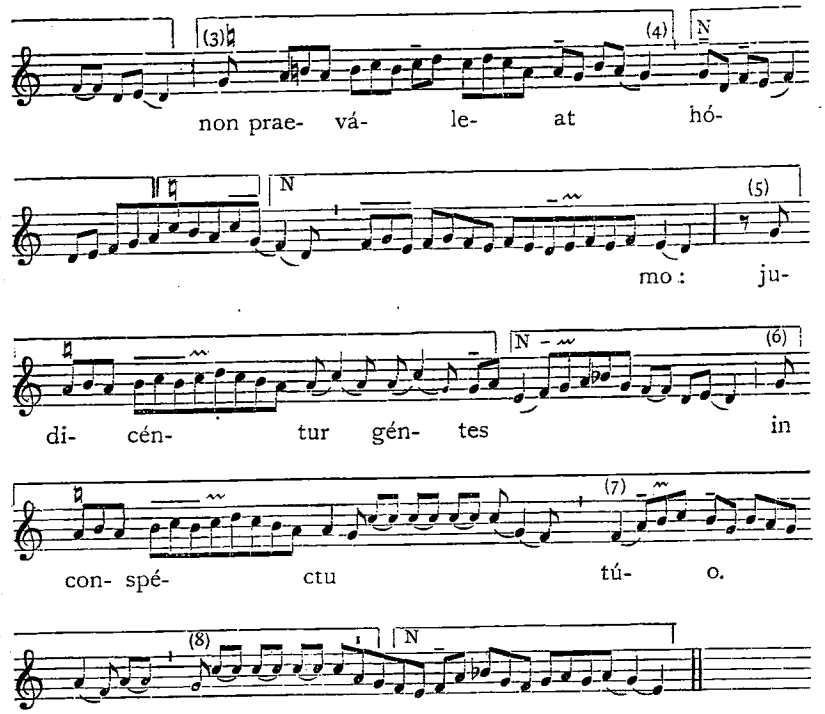


IV. Gradual : Exsurge *(Third Sunday of Lent)*.

In contrast to the Introit *Dum clamarem*, the Gradual *Exsurge* gives great importance to the natural hexachord. It also contains some B-flats which we treat as unessential notes :



(1) Not the root position, which would arrest the movement.



In our modal analysis we have disregarded the B-flats inasmuch as we have not indicated any change of hexachord when they occur. But if, on the one hand, we systematically treat this note as an unessential note, on the other hand we must never allow it to come on a chord of C major or even A minor.

1) The intonation demands first F major (on the first syllable), then D minor. But how are we going to respect the rhythm with only these two chords? It is pratically impossible to mark the initial repercussions. Anyhow, this somewhat delicate detail of interpretation gains nothing by being over-emphasized by the organ ; in any case a chordal change is undesirable, and the only possibility is a subsidiary movement in one of the parts. In this instance we can find no movement, compatible with the nature of the melody, which is not signally clumsy. We therefore simply maintain F major, using its first inversion to avoid heaviness.

The ictus before the quilisma can only have the first inversion of D minor. But the end of the word also demands D minor. A simple change from the first inversion to the root position is rhythmically insufficient to mark this lesser cadence. We must therefore introduce a

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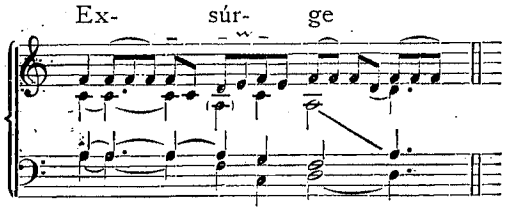
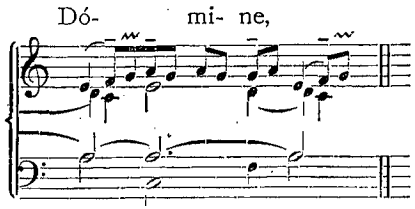
secondary chord on the episematic F, treating this note as an appoggiatura of E on the chord of C. So that we write :



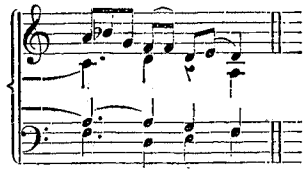
We cannot have a chordal change on the tristropha which ends the intonation : the first inversion of F, which is theoretically possible, would have the disadvantage of modifying, without reason, the " colour " of the melodic F. Besides, the chord of D minor is well placed. In view of what follows, we content ourselves with a modification of this chord.

2) Of the two notes before a quilisma, it is the first that has the greater emphasis. Hence we require a single bass for both notes. A would do here; and since, after what has gone before, we can have a 4—3 suspension in the alto, the second note can be marked by the resolution of this suspension.

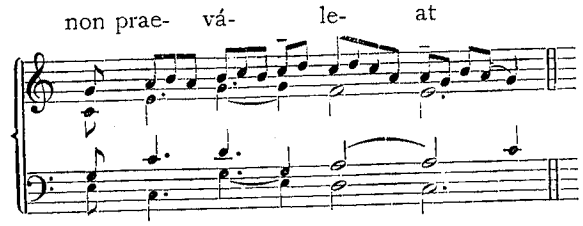
Our next consideration is the end of *Domine*; if we want to repeat the formula we have just had for the two notes before the quilisma, we must prepare the suspension with a D in the alto, placed on the episematic G, treating this note as an appoggiatura of the subsequent A. We therefore have :



Then we proceed without difficulty to D minor, required for the end of the phrase, by way of F major in root position. D minor intervenes on the distropha; a passing E in the bass enables us to finish on the first inversion, which is less heavy before a mere half-bar :



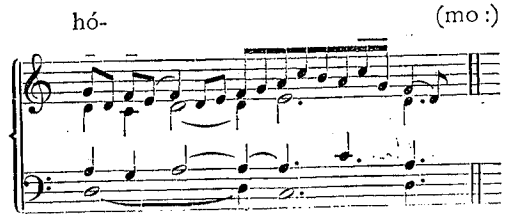
3) The next phrase leads into the hexachord of B-natural. We have to take care not to treat the first B-natural as a harmony-note, and when it comes we must also take care not to preserve the previous harmonic atmosphere by using the fundamental chord of F major. The neutral chord of A minor (or C major) can serve as a transition. The two B's on the accented syllable of *prævaleat* should be treated as harmony-notes. We must also mark the episematic C and then proceed by step to the first inversion of A minor for the end of the word. Nevertheless, B-natural no longer appears in the accompaniment, for the contrast would be too violent with the subsequent return to the lower part of the scale. All this is easy; but the initial G will hardly sound well on the previous chord (D minor) : therefore we put a chord on the up-beat, taking care to mark the subsequent ictus (in accordance with our rhythmic rules) :



4) Apart from a rapid excursion into the hexachord of B-natural, which we must not exaggerate by a hasty use of B-natural in the accompaniment, the next word (*homo*) is entirely in the natural hexachord.

The initial fourth does not receive the chord of G major, natural as it might seem at first sight : on the contrary, this region of the scale tends to give the importance of a temporary tonic to the note D, as the cadence of the phrase shows.

The best solution is to treat the G as an appoggiatura of F. Yet it is true that the *mora vocis* on the second F ought to be marked if possible; a double auxiliary-note in fourths (alto and tenor), introducing a chord of C on the bass D (a chord of the eleventh), gives sufficient rhythmic importance to the return to our principal chord. There is nothing else to do except to introduce A minor while B-natural comes in the melody :



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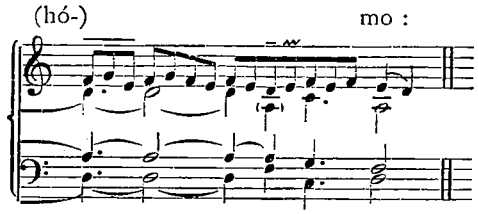
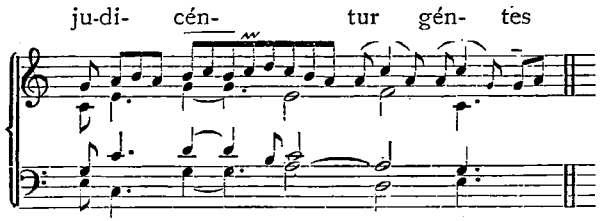
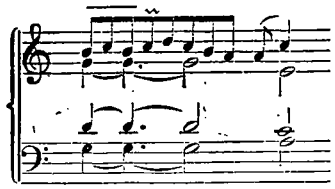
The sequel again calls for D minor. We therefore need a secondary chord in order to be able to return to D minor at the cadence. The place which the ictus before the quilisma holds in the phrase prevents this from being a larger compound cadence; hence the principal ictus of the cadence falls on the end of the word. For the note before the quilisma we use the first inversion of D minor (avoiding a chord of rest), then follows the chord of C, and we reach the cadence without difficulty :



5) *Judicentur* begins like *non praevaleat* : we use the same harmony. On the accented syllable the melody clearly indicates G major; but we must notice the repeated A's and avoid a double anticipation. This means that the end of the word will have to be marked by a chord other than A minor — the melodic context justifies a chord with D in the bass :

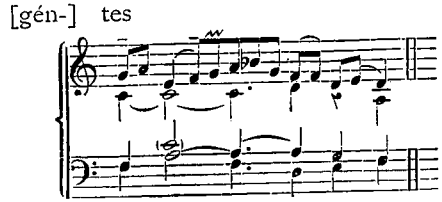


Nevertheless a double anticipation would be correct :

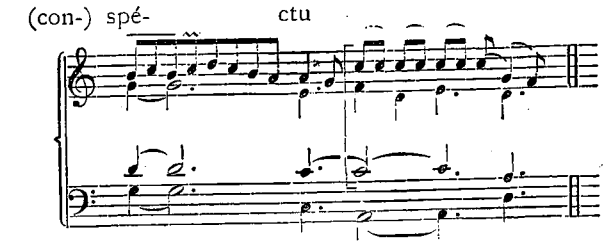


Of the three notes of preparation for a quilisma, the first always has the principal ictus. The pressus of *gentes* must necessarily have the first inversion of C major (because of the melodic fourth). But there must be a change on the end of the word. As the episematic G is so closely linked with what follows, we put F in the bass; this can easily be done by conjunct degrees, and the melodic G becomes an appoggiatura of A.

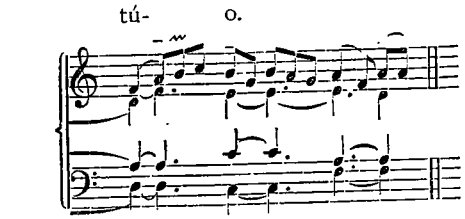
The sequel has occurred already, but this time we suppress the suspension because it cannot be prepared :



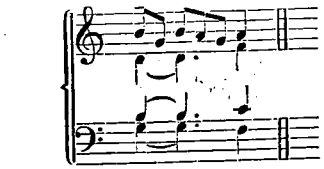
6) At *in conspectu* we have a repetition of the previous formula. But this time there is no difficulty in maintaining the chord of G major, as now the anticipation is a simple one. Then we can mark the repercussions without changing our chord, ending with D minor before the quarter-bar (the G necessarily being an appoggiatura of F) :



7) We must now avoid the brutal proximity of G major and F major on the final vocalise. And therefore, after maintaining D minor on the beginning of *tuo*, we naturally treat the melodic B-natural as an unessential note so as to be able to treat the subsequent F as a harmony-note without any incongruity :



In fact, B does not occur again except at the end, and then it is flat. The following solution would be frankly bad :



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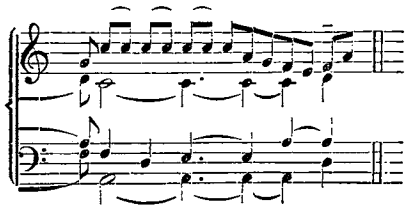
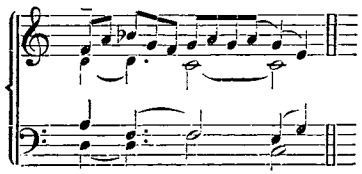
although the melodic intervals lend themselves to it. The solution we propose clings to the natural hexachord, and while B-natural occurs in the melody we employ a neutral chord.

8) The subsequent repercussions may be marked or not, like the previous ones :



But the main thing is to treat the B-flat as an unessential note; the cadence must come on the chord of C major because of the importance of G in the final formula. The plagal cadence compels us to take A, not G, as a harmony-note; there is only one chord for the last two notes (a compound cadence) :



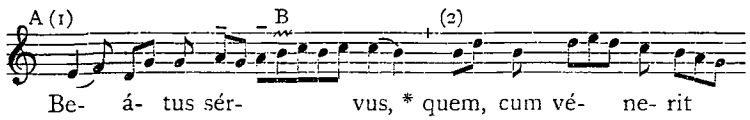
Like the Communion *Passer*, this Gradual, which is not difficult to sing *a cappella*, is often made difficult by a clumsy accompaniment, especially by the violent opposition of the two tonalities. We have found by experience that a rational accompaniment not only does not hinder the singers, it even helps them.

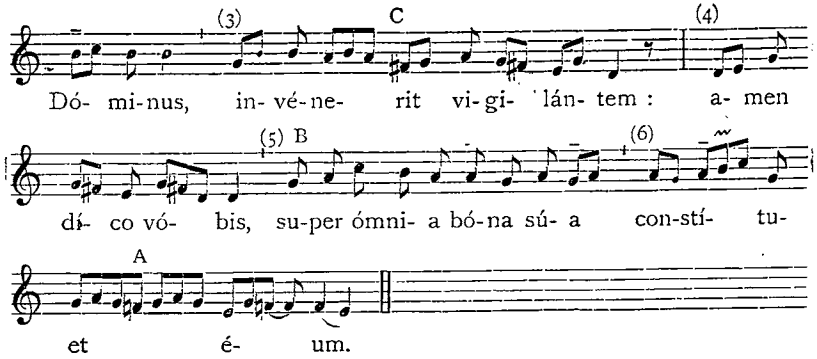
We pass over the verse, in which the same elements are to be found.

V. Communion : Beatus servus

(First Mass for a Confessor not a Bishop).

The Communion *Beatus servus* is written on the final A because of the alteration of the semi-tone : if it were written on E, F-sharp would be required. Nevertheless we transcribe it on E, and make the modal analysis by transposition :



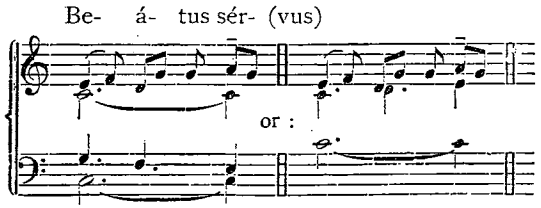


A. In the original, the hexachord of B-flat : E forbidden. Here, therefore, B forbidden.

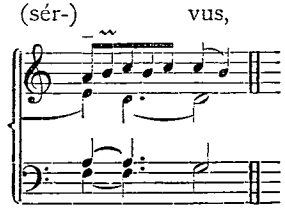
B. In the original, the natural hexachord : B forbidden (1). Here, therefore, F forbidden.

C. In the original, the hexachord of B-natural : F only in transition. Here, therefore, C allowed only in transition.

1) The intonation is similar in type to that of *Dum clamarem*, with the same difficulty as regards the melodic fourth which may not have the chord of G. We apply the same solution :



After that, we could have F in the bass, moving up to G, in spite of the melodic B-natural :



(This must be joined onto the *second* version of the beginning.)

It seems to us, however, that this gives too much importance to F, a note which only occurs once in the melody and then only for a moment.

(1) Except B-flat in chords of movement; but in the melody we are studying we maintain the prohibition.

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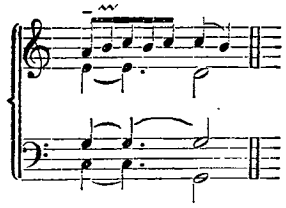
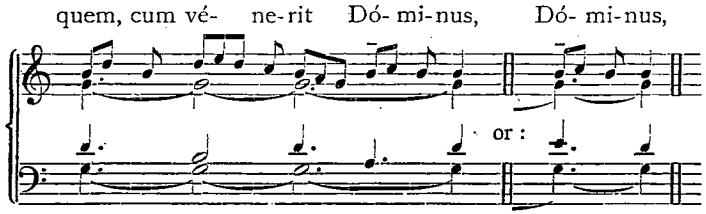
We prefer a neutral chord :



This is clearly the same chord as we began with; but the ictus before the quilisma is sufficiently marked by the chord of the added sixth.

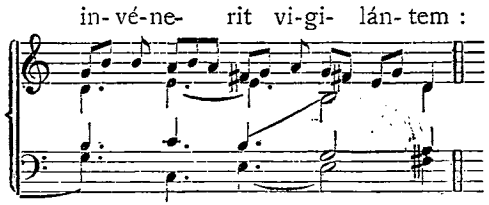
2) Once this next phrase begins, F is strictly forbidden, for a little further on it will be sharp. We therefore confine ourselves to a hexachordal harmony. The melody clearly indicates G major. We must therefore find a new chord for the first syllable of *Dominus* so that the return to G major at the end of the word may have sufficient rhythmic importance. If we treat the episematic B as an appoggiatura of C, we can have a six-four chord, or better still, a chord of the second, on a pedal G :.



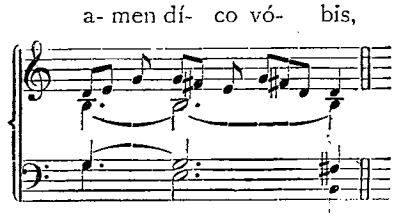
To change the bass in the course of this phrase would be heavy and cumbersome.

3) It is best to begin by treating the F-sharp as an unessential note, and not to introduce it as a harmony-note until the end of *vigilantem*. In spite of the full-bar, this cadence is in no way conclusive, and we therefore use the first inversion.

On the other hand, we must not make the mistake of using the chord of C major while F-sharp occurs in the melody (just as we should not use F major under a B-natural); in fact we shall avoid C major altogether; the first F-sharp will come on the chord of E minor :

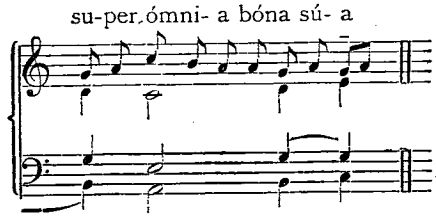


4) Instead of D major (which we have already used) the end of *vobis* might as well have the chord of B minor (which has no cadential character); the first part of the phrase goes quite naturally on E minor :

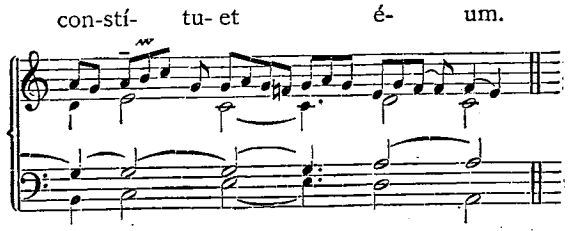


5) On the other hand, from the beginning of *super* no F is possible, because F-natural comes further on, and even F-natural may not be anticipated in the accompaniment.

The existing bass (B) will quite well support a chord of the sixth; after that the general chord of A minor is indicated; but we must introduce some harmonic movement in order to lead up to the end of *sua*; the bass A can move up to C through the intervening B :



6) The same chord (or rather C major) is now indicated; nevertheless we naturally select the end of *constituet* for a subsidiary movement, and the cadence of *eum* receives the usual harmonic formula : it is only at this point that F-natural becomes a harmony-note :



By changing the bass at the beginning, we are enabled to mark the beginning of the second syllable.

In this melody, as in the others, the distinction between the hexachords

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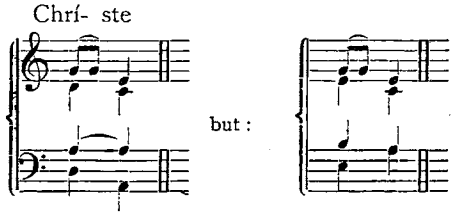
enables us not only to make a logical and correct analysis, but also to propose a really practical accompaniment.

In Gloria XIV (1), where F occurs only in the two *miserere nobis* and in the *Amen*, the chords of D minor and F major are entirely forbidden except in these three places, and even then F must come in the melody first. We should not even write;



because in the first version the unresolved appoggiatura implies the resolution F-natural. Similarly in the equivalent formula of the *Te Deum*, because up to *Aeterna fac* F does not occur in the melody (the first part of the *Te Deum* is in fact in mode III; only the latter part uses the lower register of mode IV).

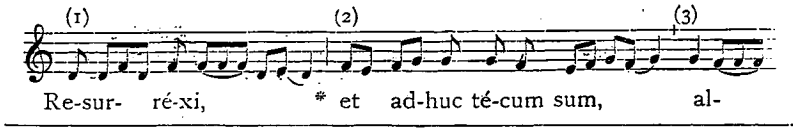
2. — The Plagal Deuterus: Mode IV.

Mode IV differs from mode III not only in its compass, which is lower, but in most of its characteristic traits. Its intonation sometimes recalls the protus (e. g. the Introit *Resurrexi*), sometimes the plagal tritus (e. g. the Offertory *Perfice)*; the whole of the first part of the Gradual *Tenuisti* is clearly in the tetrardus on C. At other times it rests on its dominant A (with B-natural) as on a protus tonic (psalmody, etc.). But we know that a mode is especially determined by its final cadence; therefore, as always, we must follow the melody step by step, noting the modulations according to our modal rules.

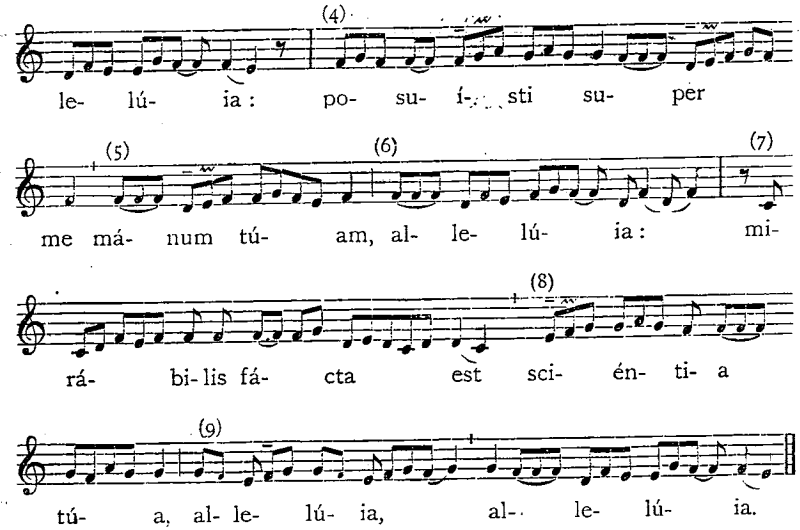
I. Introit: Resurrexi.

(Easter Sunday).

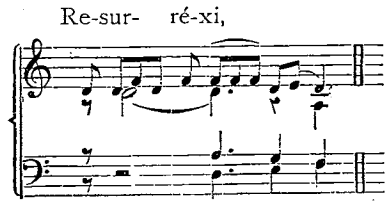
The Introit *Resurrexi* is written entirely in the natural hexachord. Therefore B must be avoided, even B-flat. But the monotony of the melodic intervals makes accompaniment difficult from the rhythmic point of view, if we exclude B-flat from our harmony:



(1) Compare also Kyrie XVI.



1) The difficulty begins with the intonation. The melodic formula requires D minor, but if this chord alone is used it is unrhythmic: we must mark the end of the word. A chord of movement with G in the bass would solve the difficulty, but then we should have to introduce B-flat. Moreover the first inversion of F is possible on the tristropha, but the result would be clumsy. Furthermore this intonation is not the only one where this difficulty occurs. The simplest solution is to delay the chord until the last syllable of the word; in this way the thetic importance of the syllable is correctly interpreted. A passing E in the bass can then lead up to the first inversion:



2) What follows is comparatively simple. The word *sum* must have the chord of C major (the only possibility), with an interchange of notes (E and G) between melody and tenor, with or without a tenor passing-note, as we shall see. We must notice the three G's of *adhuc tecum*, which obviously cannot all be treated as unessential notes: the chord of C is therefore necessary somewhere, but certainly not on the

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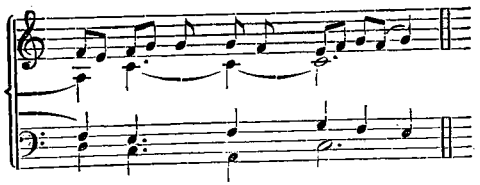
first syllable of *tecum* because we need it again immediately afterwards. We therefore write it on the beginning of *adhuc*, and introduce a subsidiary chord of F (first inversion) at *tecum*:

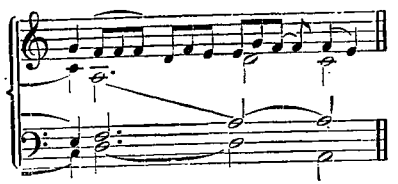
et ad-huc té-cum sum,



In cases like this, the clash of the E against the F (at *adhuc*) is modified by the disposition of the chord, the E being in the tenor.

3) As the G of *alleluia* is a repetition of the previous G, it seems from the rhythmic point of view to surrender its importance to the subsequent tristropha; hence we maintain the existing chord and put D minor under the F. This chord (D minor) can be perfectly well held until we come to the compound cadence at the clivis, where A minor is required. The only difficulty is the repeated E; we must therefore make the second E a very obvious appoggiatura by altering the alto to D; in this way we can maintain the unity of the group which ends with the oriscus, as we have done hitherto:

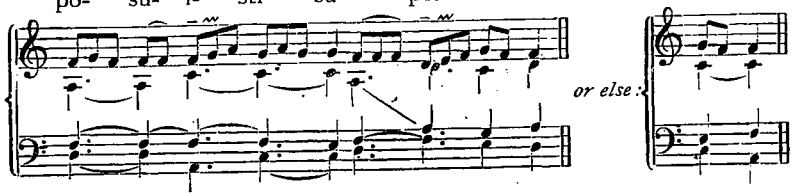
al- le- lú- ia:



4) The ictus now occurs three times on the note F. The distropha on the second syllable of *posuisti* (a weak syllable) can be disregarded. On the other hand, a good chord of movement (first inversion of F) on the ictus before the quilisma will lead to C major for the end of the word. At *super*, as in the previous *alleluia*, it is the tristropha that we mark. But remember that *me* demands a chordal change. The ictus before the quilisma (second syllable of *super*) must have the first inversion of D minor, and it must therefore be followed by an intermediate chord of C (root position or first inversion) so that we can end with the first inversion of F or D minor again.

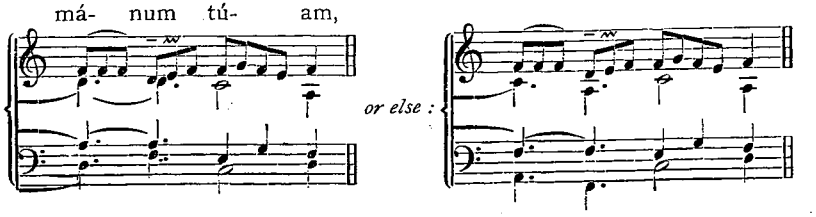
Notice that the end of *posuisti* is well suited to a tenor suspension, resolving on the beginning of *super*:

po- su- í- sti su- per me



5) Once more, D minor is indicated as the principal chord. A secondary chord is therefore needed on the first syllable of *tuam*. It is best on the beginning of the word. Taking the F as an appoggiatura of G, we write the chord of C major, and then return to D minor:

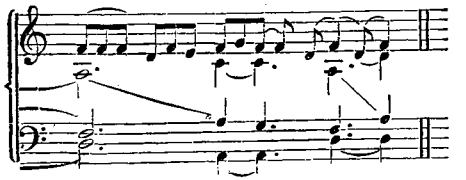
má- num tú- am,



6) But with the subsequent *alleluia*, which requires a chordal change on the pressus (end of word and cadence), the difficulties begin again: how in fact are we to introduce an intermediate chord other than D minor? This is only possible if the F (doubled by the oriscus) is treated as an unessential note, for (as indicated in Part I) it would be singularly clumsy to have the first inversion of F followed by D minor; the D before the pressus can be regarded as an anticipation of the final chord; furthermore the last F does not absolutely demand a chordal change. Hence it is the penultimate syllable of *alleluia* that claims our attention.

If we put A in the bass and double it in the tenor, it will easily figure as a fundamental (especially with G in the melody taken as a seventh of this fundamental). The F doubled by the oriscus must also be interpreted as implying E: a passing G in the tenor would favour this interpretation. And so we could have:

al- le- lú- ia:



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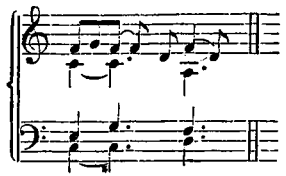
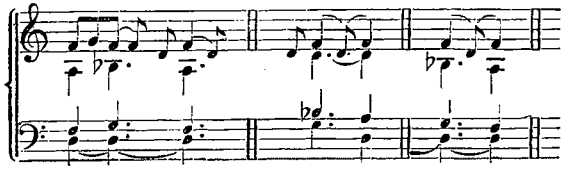
Another possibility is :  which is perhaps less natural and harsher.

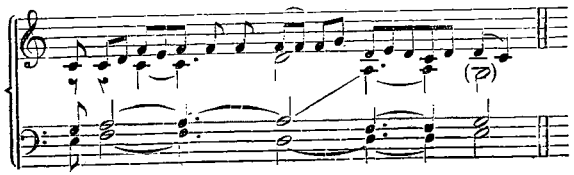
If we use B-flat there is no difficulty :



But first play an accompaniment with a purely hexachordal harmony, then a harmony with B-flat : you cannot fail to feel how this note, *which is foreign to the melody*, enfeebles its character.

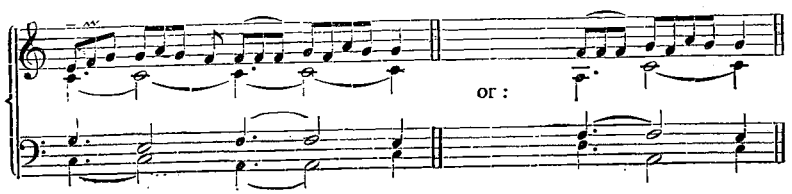
7) Fortunately the next phrase (*mirabilis facta est*) is easy to accompany. Based on the chords of F major and D minor, it calls for a cadence on the first inversion of C. Nevertheless we begin with a chord on the up-beat, because the initial C goes badly on the chord of D minor :

mi- rá- bi- lis fá- cta est



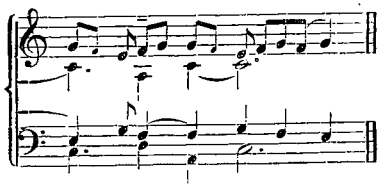
8) Again, no difficulty. For we begin on C major and proceed either to D minor or the first inversion of F on the end of *scientia*, then to C major on the end of *tua*. But since D minor (followed by C major) would almost inevitably lead to consecutive fifths, we prefer the first inversion of F :

sci- én- ti- a tú- a,



9) For the first of the two final *alleluias*, the question arises as to whether the ictus of the last syllable falls on the isolated punctum (E) or on the first note of the group. The rhythmic editions give no indication. In our opinion the E should have the ictus. Of course, we could maintain that this is a sort of echo of the previous salicus. But it is much more like an echo of *tecum sum* at the beginning of the Introit, especially as the continuation of *alleluia* is exactly the same as the continuation of *tecum sum*. We therefore interpret it in the same manner :

al- le- lú- ia,

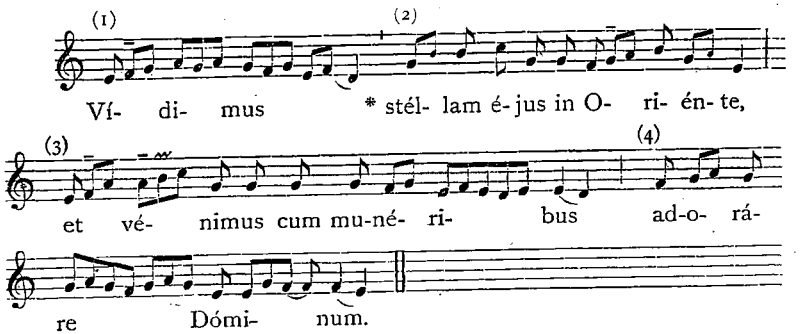


So also in the final *alleluia* there is no alteration.

It will be seen that we have adopted exactly the same methods as for the Introit *Exsurge*. But while in the course of this study we continue to apply the same principles, each melody presents its own special difficulties. Nevertheless the principles of analysis are always the same, whether modal or rhythmic : it is only the application of the principles that claims out attention.

II. Communion : Vidimus stellam. *(Epiphany).*

In the Communion *Vidimus stellam* we study the interplay of the natural hexachord and the hexachord of B-natural :



The modal analysis is easy enough and there is no need for us to indicate it.

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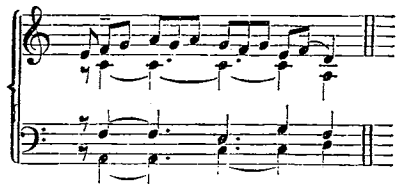
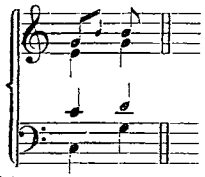
1) The intonation presents no difficulty. The ictus of the salicus requires either D minor or the first inversion of F major. We prefer the latter so as to reserve D minor for the melodic descent to the low D. C major on the end of the word leads naturally to D minor for the end of the phrase. Once again we remind the reader that a minor fundamental chord is never so absolute as to be unsuitable for a simple phrase-ending before a quarter-bar (as in this case), although as a general rule we prefer a first inversion :

Ví- di- mus

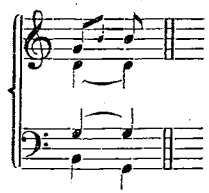


2) The next phrase obviously modulates to the hexachord of B-natural, but the modulatíon is never so emphatic as to lead to a cadence in this hexachord. So we must try to treat the B-natural as an unessential note, without forgetting however that F is only acceptable in chords of transition. The difficulty springs from the fact that the B-natural is repeated.

We could have :

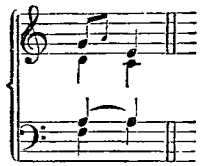


but certainly not :



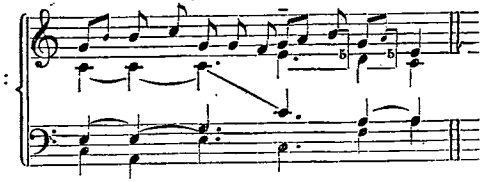
in which the chord of G major appears with brutal suddenness.

In our opinion, however, the accompaniment would better maintain that discretion which ought to be its guiding principle, if the second B were treated as an appoggiatura of C (the first B being an anticipation of the second). Everything is easy enough as far as the cadence (on the chord of A minor) which is quite normal :

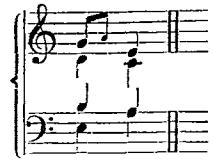


stél- lam é- jus in O- ri- én- te,

We therefore write :



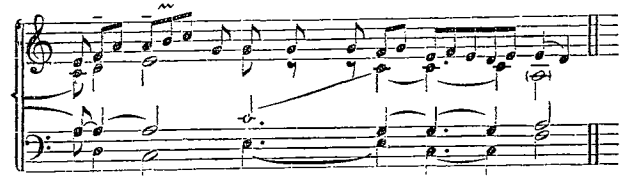
We might find that the fifth between the melody (A, the previous G being an unessential note) and the alto (D) sounds rather too obvious after the fifth E—B. In that case we should have to take the melodic G as a harmony-note on the chord of E minor (a chord which is possible after the melodic insistence on B-natural) :



The manner (by conjunct degrees) in which the B is approached in the tenor (and the D in the alto, which is a seventh) is quite in the spirit of the phrase. But the fifths noted above are quite tolerable.

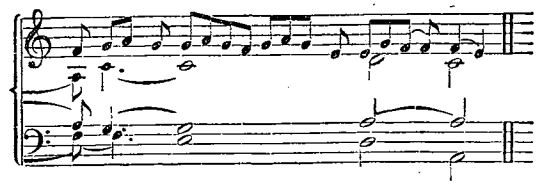
3) After the necessary D minor on the ictus of the salicus, and the first inversion of A minor on the ictus before the quilisma, it is clear that the chord of C major suits the recitation on G and all that follows up to the cadence of *muneribus*, and this will come on the first inversion of D minor (doubled clivis) ; so this phrase presents no difficulty :

et vé- nimus cum mu-né- ri- bus



4) The sequel, being a sort of embellishment of the note G, can come on the chord of C major; then for the usual cadence-formula we have D minor followed by A minor :

a-do- rá-re Dómi- num.



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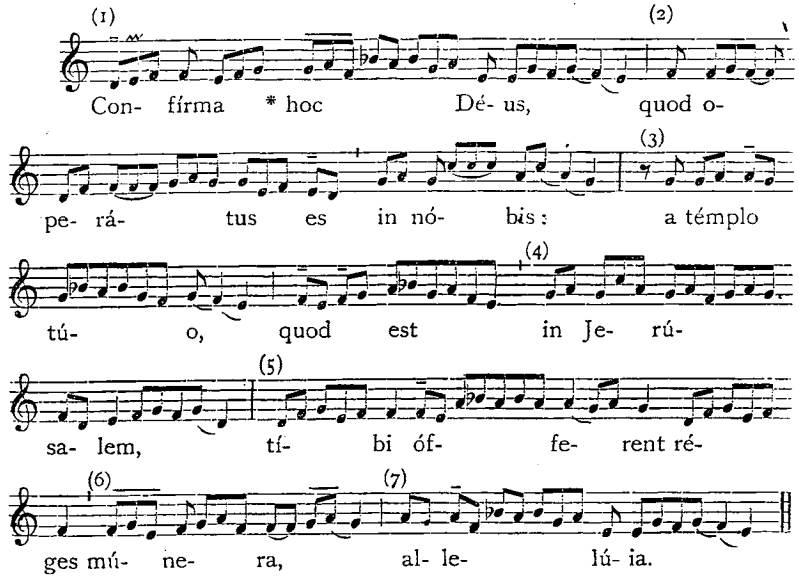
III. Offertory: Confirma hoc Deus.

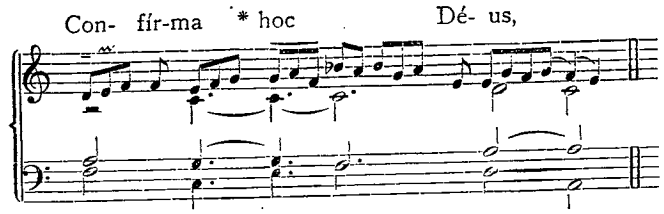
(Pentecost).

It is often better to treat B-flats in mode IV as unessential notes, not so much because their authenticity is often doubtful as because when this note is introduced into the accompaniment in a chord of G minor or B-flat major, it is much more stable and permanent than it is in the melody, and therefore it tends to modify the character of the melody. Nevertheless chords containing E (C major and A minor) are forbidden while B-flat occurs in the melody, even though the B-flat is not considered as effecting a genuine modulation to the hexachord of B-flat. Once again, moreover, we consider it unnecessary to indicate the modal analysis according to the hexachords. Here, then, is the Offertory *Confirma*, in the accompaniment of which we must avoid B-flat despite its frequent appearance in the melody:

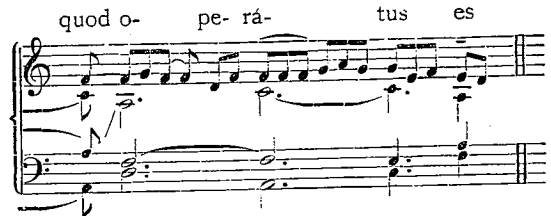


1) After D minor for the beginning and C major for the end of *Confirma*, we can keep C major for the beginning of *hoc;* after that, if we want to avoid B-flat in our harmony, we must treat this note first as an appoggiatura and then as an auxiliary-note of A, on the chord of F major or D minor; if we are intent on keeping the usual formula for the end of *Deus*, we must choose F major; but we avoid doubling the third of this chord, as that would sound rather harsh against the B-flats in the melody.

We therefore have:

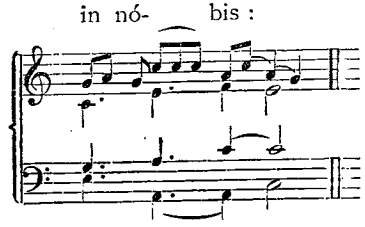


2) What follows, including the post-ictic cadence of *es*, calls for D minor; but the last syllable of *operatus* permits an intermediate chord which gives the return to D minor (first inversion) its proper rhythmic importance. Besides that, the tristropha (which must be marked) has the first inversion of F, followed later by the chord of C. All this is simple enough:



Notice that the chord of C does not come until the change of syllable. Placed earlier, it would break the unity of the syllable.

The cadence of *nobis* can only come on the chord of C major, taking the pressus as an appoggiatura of the final G. The end of the word is important; but so also is the pressus, since in analogous cases the principal chord is written on the pressus. The movement in the alto changes the chord on the end of the word without changing the bass, and the pressus is marked by a more important movement:



Notice that the downward bass leap (E—A), following a chord of the sixth, is subsequently "corrected" by the rise to C (a fundamental).

3) The B-flats of *tuo* are again treated as unessential notes on the chord of F; then the pressus (as an appoggiatura of E) on C major

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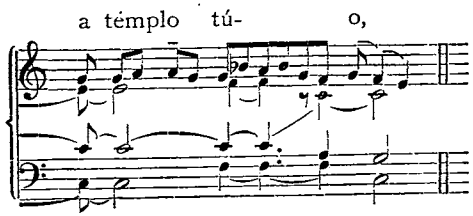
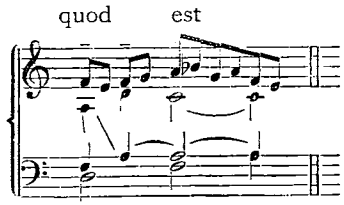
(this is better than A minor which would sound like the first inversion of F, with the result that the word-ending would not be properly marked):

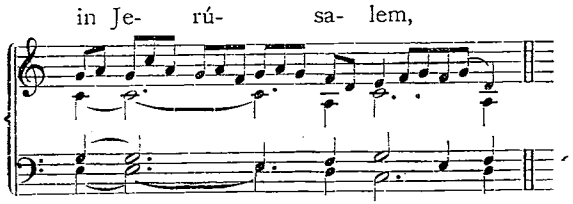


Once again we call attention to the fact that secondary ictus can be utilised for minor adjustments in the accompaniment, as this example shows.

At *quod est* we return to D minor so as to disguise the monotony of the bass (C—F—C). But at *est* we must return to F on account of the melodic B-flat; we must also take care not to treat the E before the quarter-bar as an unessential note, although it is not a very obvious post-ictic cadence. It will be sufficient to end on the first inversion of F, changing to the root position of A minor:

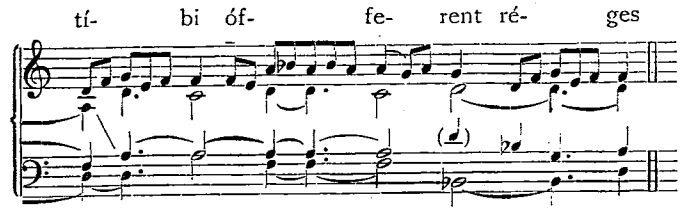


4) C major is now indicated clearly enough; but we also need it for the end of the word; hence we put D minor on the penultimate syllable. To avoid monotony it is best to keep the first inversion of C for all the first part, reserving the root position for the last syllable:

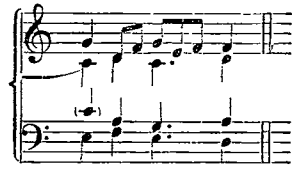


5) D minor will do well for the sequel; but there must be a change on the end of *tibi*, which is a long note: the only possibility is the first inversion of F major. F major or D minor will lead up to the end of *offerent* (with a slight movement in the alto to mark the pressus). The end of this word is perhaps the only place where the chord of

G minor (as a chord of movement, first inversion) would be good, on account of the two B-flats just before:

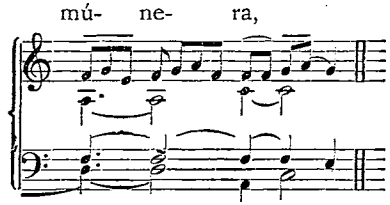


This chord leads quite naturally to D minor for the end of the phrase. But we could easily avoid it by using C major:



There are a good many chordal changes here, but the bass moves by conjunct degrees and without heaviness.

6) There is no difficulty in maintaining D minor for what follows; but we must consider the end of *munera*: there is still the possibility of the first inversion of F (A in the bass). The episema on the podatus invites us to give the principal ictus to the first G: this we can do by means of the chord of C, with a tenor suspension resolving on the last note (compound cadence):



Our accompaniment does not settle the question whether the ictus is to be on the isolated punctum before the torculus or on the subsequent note. In such cases our inclination is always to place the ictus on the punctum (in spite of the ties, the lower parts of our accompaniment indicate this by their note-values).

7) All that remains is the final *alleluia*, where once more we must treat the B-flats as unessential notes (especially if the E's are treated as harmony-notes, or else there would be an intolerable incongruity).

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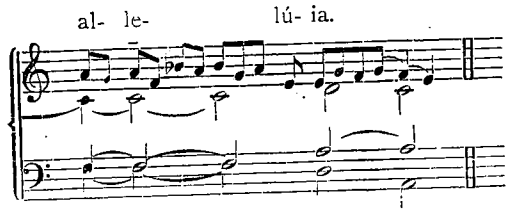
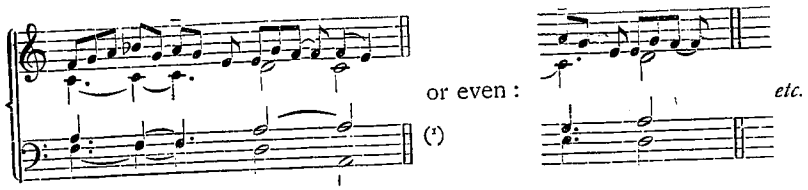
Faithful to our principles, we wish our accompaniment here to be so discreet that it avoids both B-flat and E-natural. Otherwise we practically repeat the harmony of *hoc Deus* :



We should adopt the same methods in accompanying the following cadence-formula, which is also very frequent :

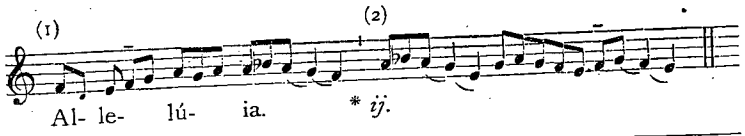


IV. ALLELUIA : ASCENDIT.

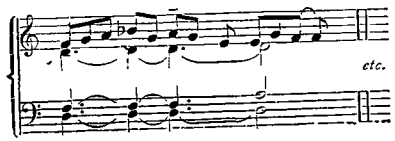
(Ascension).

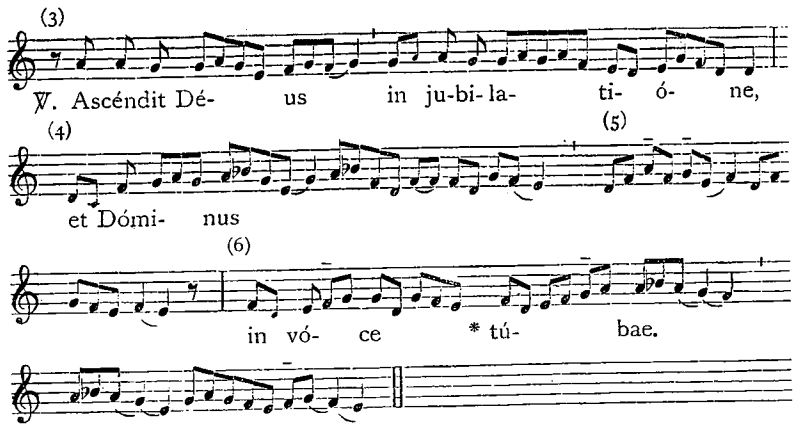
Quite different is the case of the Alleluia *Ascendit*, in which B-flat plays a rôle of primary importance. Hence we must make a detailed modal analysis, strictly according to our principles : in the natural hexachord, B-flat is possible in chords of transition ; but in the hexachord of B-flat, E is forbidden, and when the melody passes from the hexachord of B-flat to the natural hexachord, E must not occur in accompaniment until it has first come in the melody.

There seems to be no point in indicating the hexachords in future ; in the present melody they are clearly determined by the notes E and B-flat :



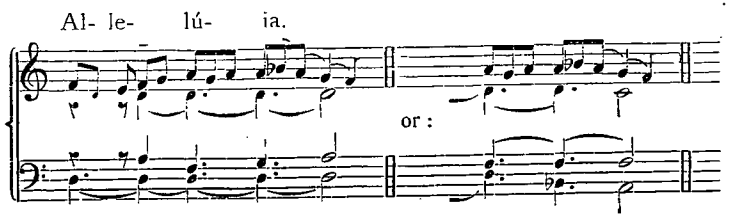
(1) On D minor :



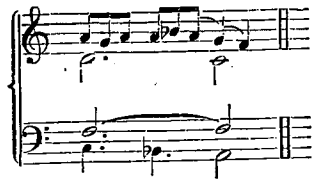


1) The intonation indicates D minor ; but the end could have the first inversion of F major ; the principal ictus of this lesser compound cadence is on the pressus, which (together with the subsequent note) acts as a doubled clivis ; nevertheless it would be as well to mark the end of the word, although any chordal change before that point would be absolutely pointless.

If we want to end on D minor, we must introduce a six-four chord (G minor) on the pedal D. If on the other hand we proceed to the first inversion of F, we can do so without any intermediate chord, or with a bass B-flat (on the end of the word) leading down to A :



A passing C in the bass is also possible :



Here B-flat comes in the bass before it occurs in the melody : but in the first place it is in a chord of transition, and furthermore this

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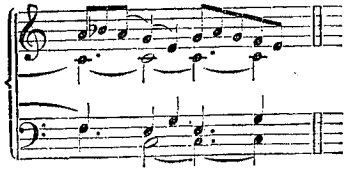
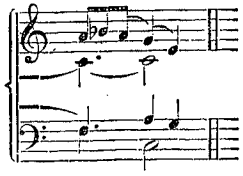
note plays such an important part in the melody that its occurrence in the accompaniment in no way modifies its character. We no longer need to insist on the necessity for a single chord to accompany a doubled clivis or its equivalent.

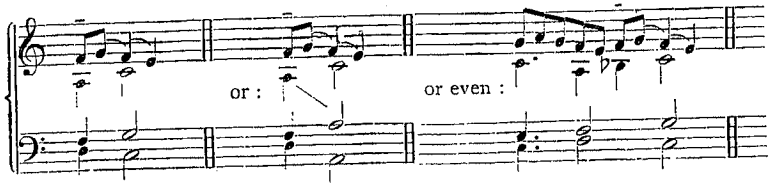
2) The cadence before the verse offers no difficulty; it can have either C major or A minor (G has a certain importance in the final formula and makes C major acceptable as the final chord; but A minor is also possible). The beginning of the jubilus, on the other hand, is difficult to accompany. If we stick strictly to our modal rules, C major is forbidden on the pressus-G: the first inversion of G minor is, of course, excellent, but cannot be maintained on the subsequent E; if we write C major on this E, we shall have two chords where we have always recommended only one, and moreover since the chord of C will almost necessarily have to continue on the subsequent group, it will by its very length assume all the importance: but the principal ictus is on the G, not on the E. In our opinion the B-flat (which we must treat as an unessential note) is not sufficiently emphasized at the beginning of this jubilus to impose necessarily the hexachord of B-flat, and therefore under these circumstances the chord of C is possibile on the pressus:



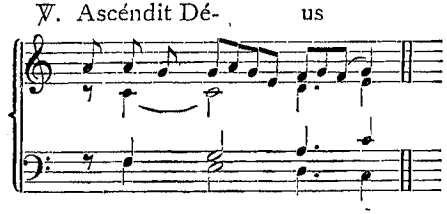
The following would be equally possible:



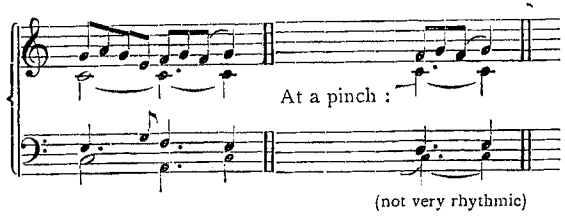
In this last formula, F is implied in the melody, and it is a sort of six-four appoggiatura; but although the writing is logical enough, it does not sound well. The sequel presents no difficulty:



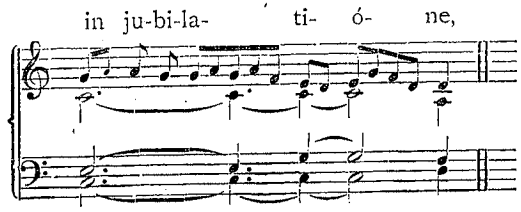
3) The verse must begin on A minor or F major, and the first syllable of *Deus* naturally has C major; but as a chordal change is needed on the end of the word and the final punctum can only have C major, we must insert D minor or F major (first inversion):



Notice that owing to the conjunct degrees of the bass, we succeed in avoiding the heaviness that might otherwise result from such rapid chordal changes. But we could write:



There is no need for any change in what follows. The melody so clearly pivots on G and on E that we can maintain the chord of C major, which will lead to D minor for the cadence:



4) This next phrase contains a genuine modulation to the hexachord of B-flat. The first E on the last syllable of *Dominus* seems to be a furtive borrowing from the natural hexachord, in such a way that the subsequent G calls for the first inversion of G minor, and the next group (which makes an arpeggio of the chord of B-flat) confirms this impression. But that does not make our task any easier. We begin with the chord of F major (suggested by the rising melodic fourth C—F) and return to the chord of D minor on the last syllable of *Dominus:* what are we to do with the G and the E? First of all we

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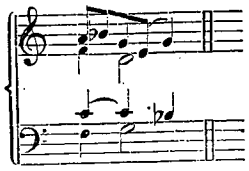
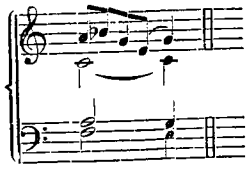
must discard any solution like the following, in which the E alone is an unessential note :

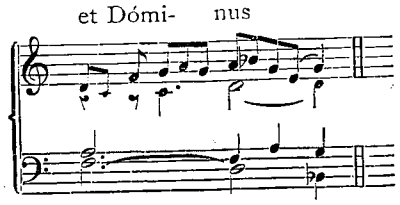


The principal ictus is on the last G, not on the first. Hence both the G and the E should be treated as unessential notes.

On the other hand, if we disregard the effect of the melodic B-flat and write (with two unessential notes) :

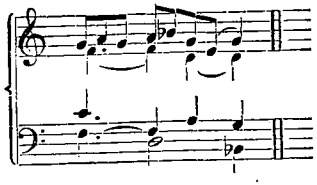


it is impossible to link up with what follows without an immediate change of chord. We much prefer :



As the G and the E imply the intermediate note F, we do not maintain this note in the tenor but substitute A instead (1).

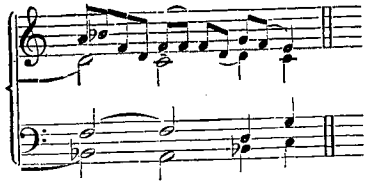
Those who are afraid of fifths between melody and alto (one of them an auxiliary-note) can write :



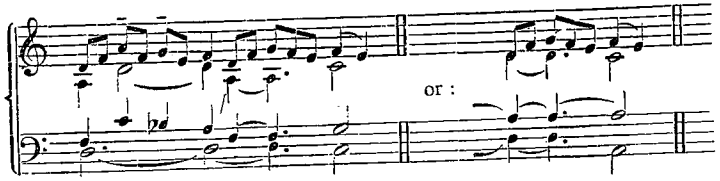
(1) If we maintain F in the tenor, we can tie it to F in the next chord, making it a chord of the added sixth.

We then link up very well with the root position of B-flat until we come to the long F.

At this point, although the subsequent D calls for the chord of D minor, our bass B-flat has too great an attraction towards A for us to resist it; the melodic D becomes an indirect anticipation of the chord of G minor again, and this leads to the chord of C on the final E :

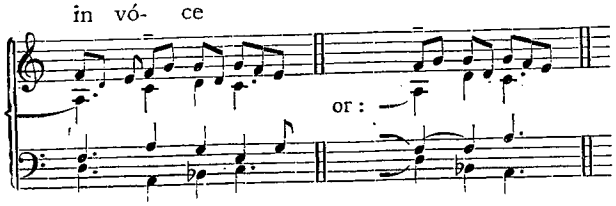


5) The next phrase, which must end on C major or A minor on the doubled clivis, requires D minor first. But the doubled virga on F demands a chordal change. Hence the episematic G before it might have C major or even G minor on a pedal D, and in the latter case the other horizontal episema could be marked with a seventh in the tenor, leading to B-flat :



This tenor movement might equally well come in the bass, but then the B-flat would be followed by the first inversion of F (A in the bass), after which another chordal change would be necessary. Besides, the accompaniment is less heavy on a single bass note.

6) Before the choir joins in at *tubae* we must face the possibility of a slight pause and therefore not treat the E before the asterisk as an unessential note; hence either C major or A minor is required. We can have G minor on the descending fourth G—D (as a chord of transition) because of the general context of the melody; before it we write D minor, and at a pinch the first inversion of F to mark the ictus of the salicus :



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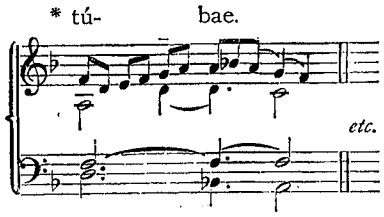
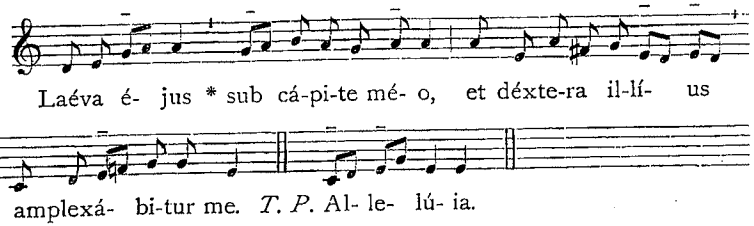
The sequel can have the same accompaniment as the beginning, with a trifling change of rhythm :



V. ANTIPHON : LAEVA EJUS. *(Common of Our Lady).*

IV-mode antiphons on the final A cannot be written on the ordinary final because the melody requires a full tone above the tonic, which would lead to F-sharp in the usual notation. On the other hand, when they are written on A, we have B-natural; B-flat can intervene in the cadence in order to determine the modal character of the deuterus.

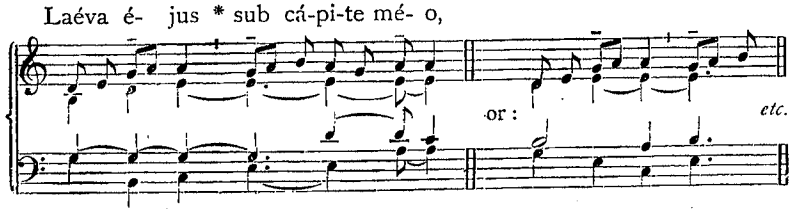
To quote an example, here is the Antiphon *Laeva ejus :*



We have transcribed it on E so as to be in the realm of practical performance.

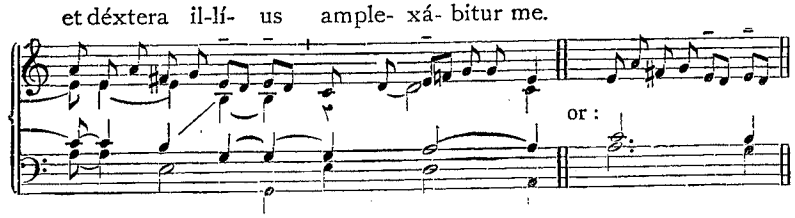
Until we come to the F-sharp, there is not a single semi-tone; but as B-natural occurs we can use it in our accompaniment (to the exclusion of F). Moreover the cadence of *meo* demands the chord of A minor. On the subject of this cadence (here a simple one) we must point out that the Monastic Antiphonar treats cadences of this type (and others rhythmically similar in the other modes) as redundant spondaic cadences, with the accent doubled (see below, Antiphon *Urbs fortitudinis*, mode VII), so that they are accompanied with a compound-cadence formula (chord on the accent with a suspension resolving on the last note). The Roman Antiphonar, on the other hand, adopts now this interpretation, now the other. If the choirmaster compares the antiphons with their counterparts in the Monastic Antiphonar, he can follow the latter book for the rhythm of such cadences, and the organist must write his accompaniment accordingly.

In the present instance the suspension must be prepared by means of a seventh in the tenor :

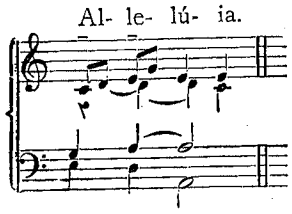


We write a quaver on the accent of *meo* in order to respect the notation of our choir-books; in reality it should be a crotchet.

In the sequel the F-sharp must be treated as an unessential note. But since the final cadence comes on the chord of A minor (even if only to link up with the psalm), if we use the plagal cadence we must treat the F-natural as a harmony-note and the E and the G as unessential notes. Although this is possible, the writing of the accompaniment demands a certain flexibility :



The *alleluia* (like some antiphon-cadences), in which F does not occur, compels us to treat the E and the G as appoggiaturas of an implied F :



and that is how the usual alto suspension can be prepared.

The Antiphon *Iste puer* (Birthday of St John the Baptist), in which F-sharp is constant and recurs quite near the cadence (B-natural in the original), is really a protus. And so in our transposition we must end with the chord of E minor, which presents no difficulty. This exception proves the rule (1).

(1) The Monastic Antiphonar gives this Antiphon with the final G instead of A (original pitch), so that it is in the tetrardus and in the hexachord of B-natural. Transposing a fourth lower, we must therefore finish on D major.

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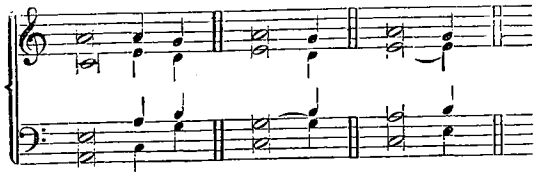
VI. Special Points. *B-NATURAL* as Final.

In the *Te Deum*, F does not occur until we come to *Aeterna fac* (1); hence this note must be avoided in our accompaniment. As the doubled accent of *confitemur* (and similar formulas) must not be understood as forming a compound cadence, the chordal change has to come on the last syllable; furthermore only the plagal cadence will do (F being forbidden):

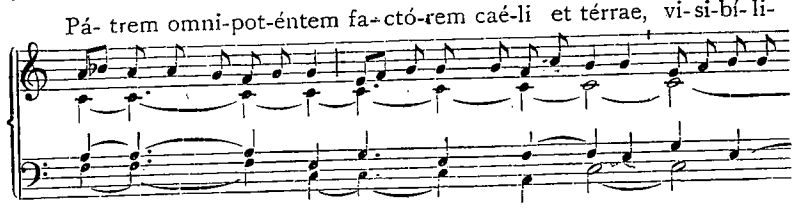


From time to time the cadence may be "interrupted", as may be seen. While we are on this subject we repeat the principle that everything that is *recited* (i. e. on one note) should be accompanied by *a single chord;* the only ictus to mark is that of the cadence.

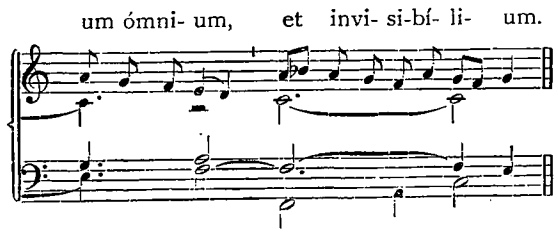
The same principle applies to Credo I, in which the recitations on G must be accompanied by the chord of C major, and the recitations on A by the chords of F major and D minor. B-flat is not sufficiently important in this Credo for the cadences on G to have the chord of G minor; the half-cadences alone may have this chord, although they do not demand it, and even then it is only permitted as a chord of movement (i. e. in its first inversion or as a chord of the added sixth). The genuine cadences can only come on C major. In fact, C seems in this case to be the tonic of a sort of tetrardus melody which finally ends on the third of its tonic.

From the rhythmic point of view, notice that the clivis of *invisibilium* (and others like it) is equivalent to the redundant spondaic cadence of *terrae* (further on: *Deo*, *caelis*, etc.): both are compound cadences (the principal ictus and chord coming on the first G). On this subject Dom Mocquereau's important Monograph (2) should be read.

Here is the first phrase. Notice that only the cadences are marked by chordal changes (except at *caeli*, where the chord of F, demanded by the melody, allows the preparation of the suspension):



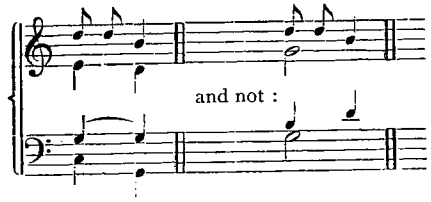
(1) Compare the Gloria of Mass XV.
(2) *LeChant "Authentique" du Credo* (Monographie Grégorienne III), Desclée, 1922.



The secondary ictus are used merely for "exchanges of notes".

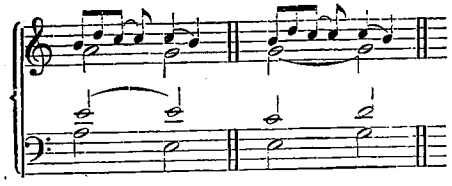
There is a still more definite impression of a tetrardus in the Gradual *Tenuisti* (Palm Sunday), whose cadences on the low C are clearly in this mode. But that does not create any special difficulty. Yet it must end on the chord of C.

A fifth higher, melodies written on B as final are of the same family. A case in point is Kyrie XV, which is written entirely in the hexachord of B-natural without any F (which note we must avoid in our accompaniment). The first three Kyries can have either E minor or G major at the cadence. Similarly the second Christe. But the first and third Christes and the last three Kyries (except perhaps the second of them) demand G major on account of the importance of the upper D. In particular notice the final cadence:



which is inadmissible from the rhythmic point of view.

The Communion *Dilexisti* (Common of Holy Women) is of course written on B because of its low F (which is the equivalent of B-flat in the normal position) (1). It may have either E minor or G major for the final chord:



(1) The Responsory *Subvenite* also has a fine low B-flat. But on the other hand, the high B-flats of the Vatican Edition are more than suspect; if we insist on B-natural (cf. the Monastic Antiphonar) the melody cannot be written on B.

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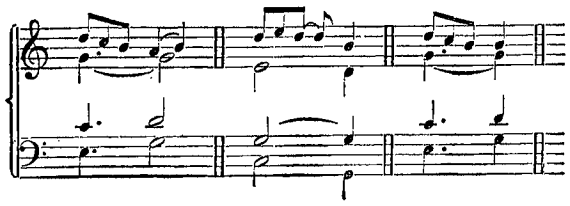
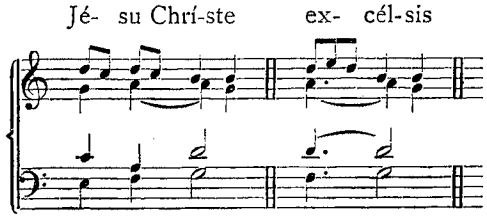
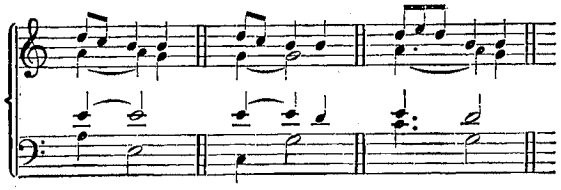
Undoubtedly the Gloria, Sanctus and Agnus of Mass I belong to the tetrardus with their final note on the third of the tonic. Their final cadences present no difficulty :



But we must try to avoid F : this note appears only twice in the Gloria (at *Domine Deus* and at *Qui sedes)*, once in the Sanctus *(Pleni sunt)*, and once at the beginning of the Benedictus. It is easy to avoid this note except in certain compound cadences (because of the preparation of the suspension) :



But the following are possible :



The first of these formulas (on E minor) is possible because it is not the final cadence. The second, which is rather feeble harmonically, is to be found in some of the old masters of the Renaissance (of the Franco-Flemish School).

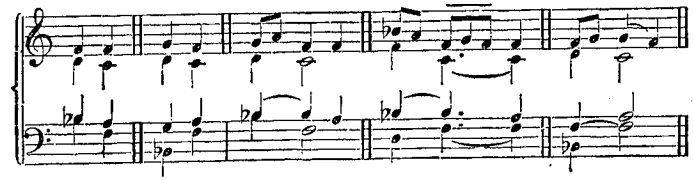
CHAPTER III.

THE TRITUS.

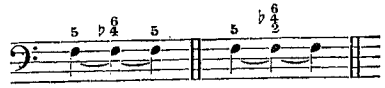
Because of a supposed analogy with the modern major mode, the plainsong tritus is often regarded as easy to accompany. Nothing could be further from the truth : precisely because of this analogy it is perhaps the most difficult of all the plainsong modes; for if the major mode is based on the attraction of the leading-note to the tonic, the plainsong mode, both in theory (the ancient writers are unanimous on the point) and in practice (the ancient melodies in their authentic form contain no leading-note cadences) is based on a completely different technique and rests on a different conception.

Besides, many of its cadence-formulas, which employ B-flat but avoid E, are common also in the tetrardus (a degree higher). Consequently we have to use the plagal cadence; and this has the advantage of allowing the preparation of the customary suspension in compound-cadence formulas.

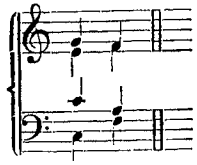
Harmonic scheme :



This can also come on a tonic pedal :



But sometimes the melody has a B-natural which excludes B-flat from the accompaniment. In such cases only the so-called " perfect " cadence remains, which is always undesirable. The least we can do is so to dispose the two chords C—F that the effect of the leading-note is disguised. As a rule the E ought not to be in the alto :



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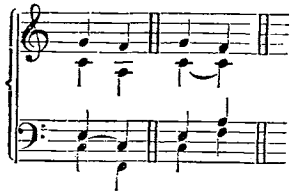
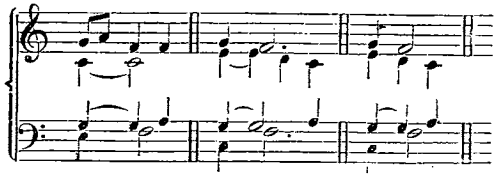
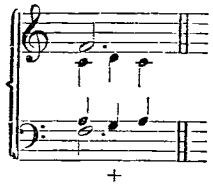
but in the tenor, and it should not move up to F :



With regard to the suspension required in compound-cadence formulas, since B-flat in impossible, it has to be a *lower* suspension resolving on the note above :



On a tonic pedal :



we get a chord of the second, with its sixth but without its fourth (the fourth would in fact give us B-flat), and this is sometimes useful. The third of the root (i. e. the fourth of the actual bass) is obviously suppressed, and all these last examples need to be used with great flexibility : we shall find a number of practical applications of these progressions in the melodies that follow.

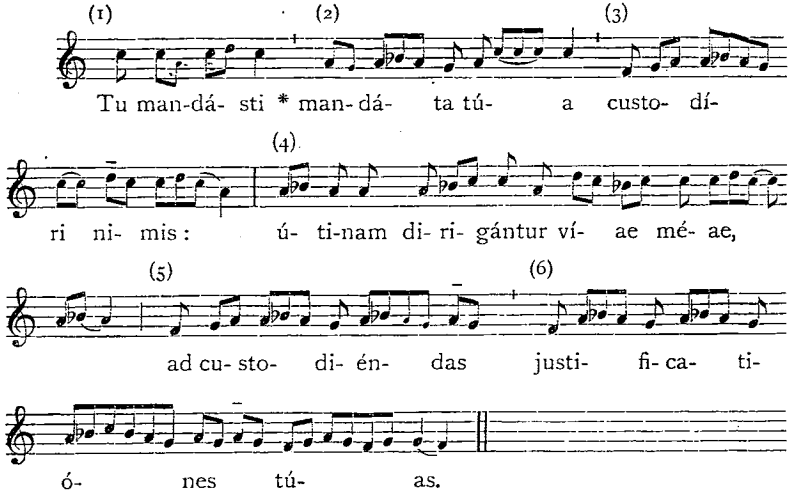
1. — The Authentic Tritus : Mode V.

I. Communion : Tu mandasti.

(Nineteenth Sunday after Pentecost).

The Communion *Tu mandasti* is strictly confined within the limits of the hexachord of B-flat, from the tonic F to the upper D (including B-flat). Its material elements therefore are, apart from the actual notation, exactly the same as those of a tetrardus (without the degree below the tonic), and the melody could easily be written a degree

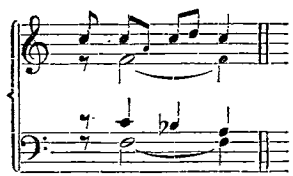
higher; even the intonation is very similar to that of certain tetrardus Antiphons (in mode VII, of the type *Tu es Petrus*) :



Our accompaniment must be, like the melody itself, hexachordal; hence we use no chord containing E. It is obvious all through that F major is the principal chord, suggested by the emphasis given to the notes F, A, and C; closely associated with F major is the chord of D minor, which is indicated in some places (e. g. *nimis*), and which introduces an element of variety; G minor and B-flat major must be chords of movement.

1) The intonation forms a little phrase on its own; it is practically bound to begin and finish on the chord of F. We therefore need a secondary chord on the second syllable of *mandasti* so as to give the final chord its rhythmic importance; it would not be sufficient to pass from the root position to the first inversion, or *vice versa*. We must therefore take D (and not C) as a harmony-note; we give it the chord of B-flat although this note has not yet occured, for we are obliged to choose a hexachord. And in order to avoid all heaviness we set everything on a tonic pedal :

Tu man-dá- sti



We begin without the third of the chord so as to give the tenor a more logical progression; if the tenor began on A and came back to it,

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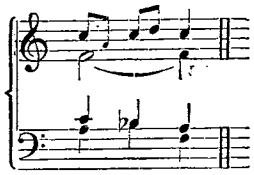
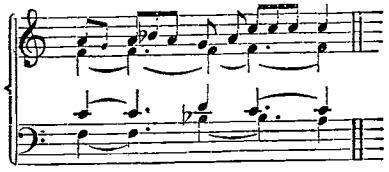
the auxiliary-note B-flat would be rather puerile. It might be objected that the B-flat, analysed as a passing-note, does not really change the chord. In our opinion it has sufficient character to mark the melodic rhythm. Otherwise we should have to write, rather clumsily:



2) The sequel also demands F major; but we must take advantage of the end of *mandata* to make a chordal change (first inversion of G minor). The cadence of *tua* must be regarded as a compound cadence. A suspension in the bass or in the tenor is resolved on the end of the word. Thus without any difficulty we have:

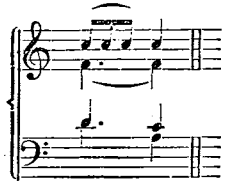
man- dá- ta tú- a



Notice the chord of the added sixth and its disposition, on the end of *mandata;* of course the alto F could be altered to D, in unison with the tenor.

We could have a pedal bass (in which case the suspension would be in the tenor), but after what has gone before it would be somewhat monotonous.

If we maintain that the cadence is a simple one, then since the chord of F is the only possibility on the end of *tua* we must take the tristropha as an unessential note or as a seventh; there is no alternative to the following realization:

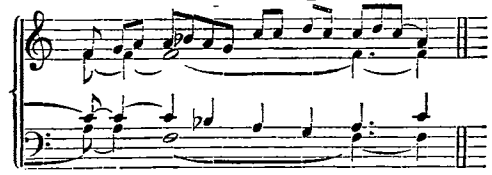


But the emphasis given to the final on the accent of *tua* forces us to interpret this as a compound cadence.

3) We begin again with the same chord (F major). As the end of *custodiri* has to be marked, a change is required on the previous

ictus, for only F major suits this syllable; in any case there must be a change on the first syllable of *nimis*, for F major is again needed for the ending. Practically the entire phrase can rest on a tonic-pedal:

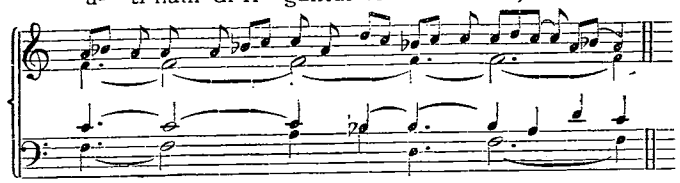
custo- dí- ri ni- mis :



Here it is the tenor alone that marks the rythm. Remember that the principal ictus is on the second syllable of *nimis*, not on the final punctum.

4) We have the same problem in the next phrase, which also revolves round the notes A and C. But the chord of B-flat, which is clearly indicated for the word *viae*, facilitates the cadence of *meae*, which can only come on F major. We therefore have:

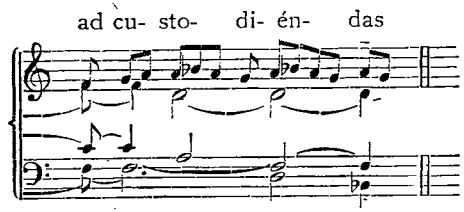
ú- ti-nam di-ri- gántur ví- ae mé- ae,



The first C on the second syllable of *meae* is preceded by a double anticipation, which is here quite possible. Nevertheless it is a procedure which needs to be employed with discernment.

5) The end of *custodiendas*, a lesser post-ictic cadence which must necessarily come on the first inversion of G minor (A being treated as an appoggiatura of G), brings a little variety to an accompaniment which up to this point has been rather monotonous. But all the first part of the phrase could go well enough on the chord of F major; all the same we introduce D minor, which allows the bass to move down to B-flat with less of a jump:

ad cu- sto- di- én- das



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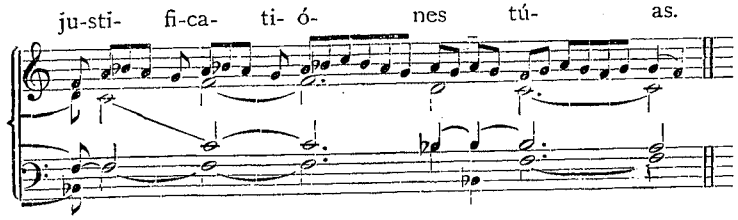
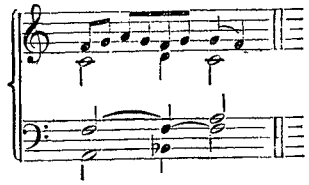
6) The next word again calls for F major; the beginning could have D minor, but we have just used it. There is no point in overloading our accompaniment: we make no changes, and merely concentrate on our plagal cadence; the indispensable B-flat intervenes on the end of the word; the horizontal episema is marked by an octave leap in the bass; the final chord is written on the first syllable of *tuas*, for this is a large compound cadence; the usual suspension is prepared in the tenor:



Although from the rhythmic point of view the tenor suspension is perfectly correct, it may appear somewhat long and awkward; this disadvantage is less noticeable in protus cadences (on a minor chord). Since the main thing in this formula is to change the chord on the first ictus, we may, and consequently often shall, write the following (especially in tetrardus cadences, on G):

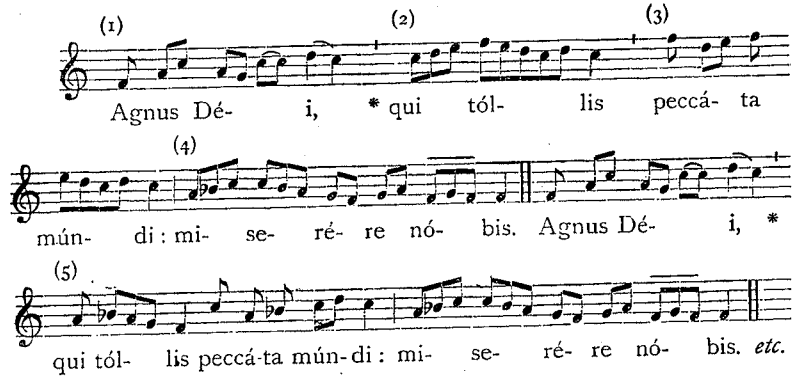


Obviously the accompaniment we propose for this melody is not very varied; but it is not the business of the accompaniment to add anything new to the melody, which is self-sufficient; all that we ask of an accompaniment is that it should fit the rhythm of the melody as closely as possible and respect its modal character.

II. Agnus Dei of Masses IX and XVII.

When melodies of the same type as the preceding expand in the higher register, the natural hexachord is established in the region of the upper fourth C—F, the hexachord of B-flat being maintained below. Thus the octave is divided into a fifth F—C and a fourth C—F, C providing the necessary link between the two. This is the case in the Agnus of Masses IX and XVII.

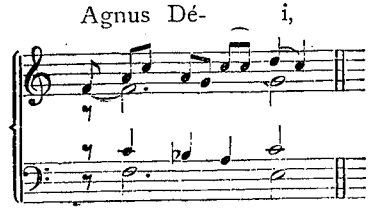
Here is Agnus IX:



1) By itself the intonation is indefinite because it has no semi-tone. We could therefore interpret it as belonging to the natural hexachord, which clearly intervenes afterwards at *qui tollis*. Nevertheless, in a case like this we must beware of the chord of C, because if its third (E) were to move up to F it would naturally figure as a leading-note, while on the other hand B-flat is quite safe. Moreover a careful examination of the complete melody clearly shows that B-flat is included in the fifth F—C, while the lower E is systematically avoided. The Sanctus of the same Mass is exactly similar, and the same principle has to be applied.

Nevertheless the cadences on C (mere phrase-endings) naturally have the chord of C (mostly the first inversion), for in such cadences there is no leading-note "attraction" to disturb the plainsong atmosphere (the chord of C being merely a provisional cadence): briefly, such provisional cadences on C are equivalent (a fourth higher) to tetrardus cadences on G, which receive the chord of G major even when the melody rises from the lower part of the scale. In fact, in the case under discussion, a cadence on C is quite naturally interpreted as a tetrardus cadence.

The intonation indicates the chord of F major. But the final (doubled) clivis can have the first inversion of C. If we want to mark the distropha of *Dei* we must introduce a previous B-flat in the tenor, thus marking the beginning of the first syllable of the word. We therefore have:



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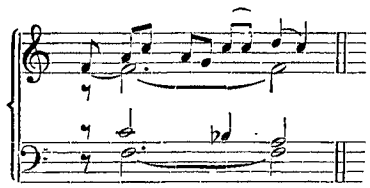
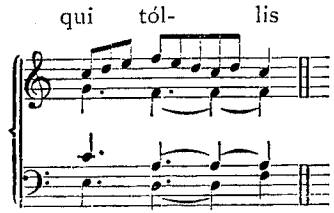
If we were to keep to the chord of F major for the end of *Dei*, the rhythm of the accompaniment would certainly be feebler:

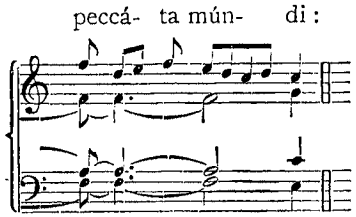


2) We can easily begin again on the same bass note (E), which leads by conjunct degrees to the chord of D minor for the high F of *tollis*. But if we put the chord of C on the end of the word, we must write a chord on the up-beat for the high F of *peccata*, otherwise this note will sound harsh on the chord of C. Furthermore, since it is better not to break the unity of the neum on the accent of *tollis*, we must return from D minor to F major for the change required by the end of the word. This gives us:

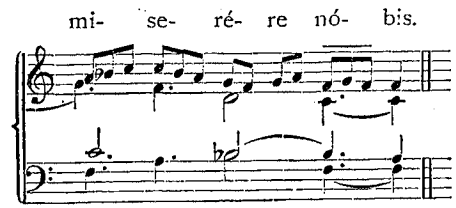


From this we see that phrase-endings on C can have two harmonic interpretations.

3) With regard to *peccata mundi*, no change is necessary until the end of the phrase. In spite of the monotony of the formula, the bass can then descend quite simply from F to E:

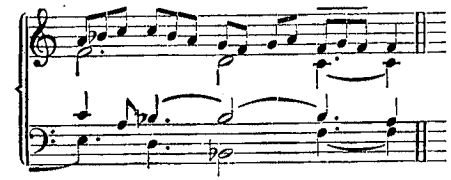


4) F major fits the sequel, and the plagal cadence does for the conclusion. So that we can have:

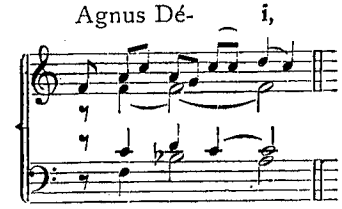


The alto suspension is obviously not obligatory.

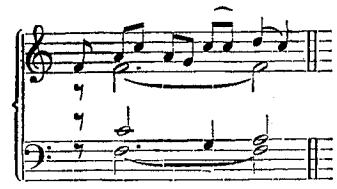
On the other hand we could keep the same harmony and base it all on a tonic pedal. Or the E we already have in the bass could be held on as the seventh of the root F (third inversion); the fact that the melody introduces B-flat over this note need not worry us, because E can be justified by the general context, even in the hexachord of B-flat, where (as a seventh) it figures as an unessential note:



5) The only difference between the first and second Agnus is at *qui tollis peccata mundi*. But here the A of the word *qui* (on the up-beat) would fit better on the chord of F at the preceding cadence. Hence we could have:



or the second formula given in 1); or even:



We must now consider the end of *tollis*, which, having a doubled punctum, requires a chordal change. D minor would do, but would

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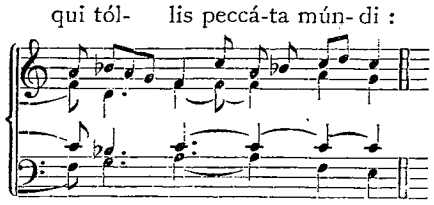
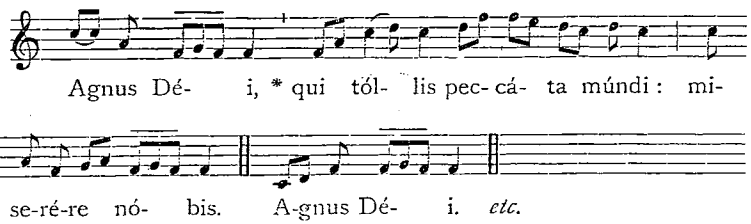
be awkward for the C at the beginning of *peccata*. It is simpler to put G minor on the first syllable of *tollis*. This chord leads to the first inversion of F, and we maintain the chord of F until the end of *mundi* :



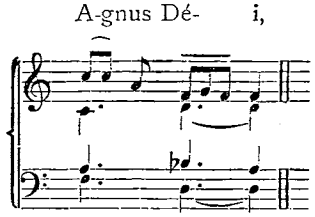
For the sequel and for the third Agnus there is no need to change what we have already proposed.

Now for Agnus XVII :

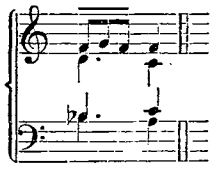


There is not a single B-flat and yet it seems impossible to adopt any but the plagal cadence; the so-called perfect cadence would almost necessarily imply a leading-note, contrary to the plainsong atmosphere. Furthermore, comparison with melodies of the same type (and even others like the Alleluia *Assumpta est* analysed below) justifies the conclusion that B-flat is implied in the middle register of the scale; besides, we observe that the semi-tone below the final is systematically avoided by the melody at its cadence.

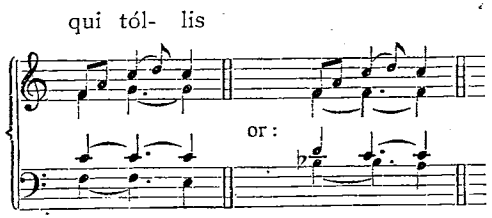
The intonation ends with the torculus-and-punctum formula, which gives us a compound cadence. Since we must begin on F major, we must end on D minor; and if we want a subsidary movement on the final punctum, there is no alternative to :



Nevertheless we could have two distinct bass notes under the melodic formula :

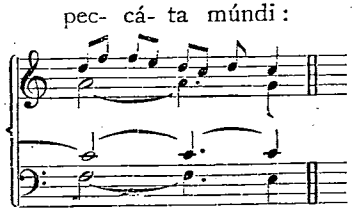


The very emphatic pressus of *tollis* on the same note as the end of the word seems to impose a compound cadence; the chord must therefore come on the accented syllable of *tollis;* thus we have :

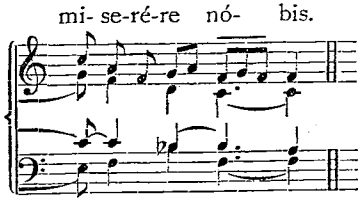


with the suspension in the bass. If we end the intonation on D minor, we must link up with the second of these formulas (1).

The remainder of the phrase must have either F or D in the bass, moving to E for the end of *mundi :*



The final cadence has to be the plagal cadence, which is the only possibility :



The next Agnus, beginning on the chord of F major, can have for the torculus-and-punctum formula one of the two solutions proposed above.

(1) We can also link up with the first formula, but then we must alter the tenor in order to avoid fifths.

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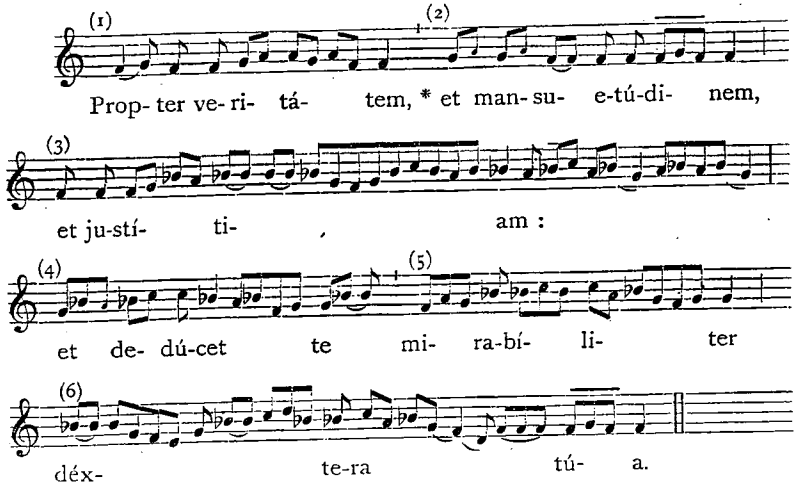
III. Gradual: Propter veritatem. *(Assumption of Our Lady)*

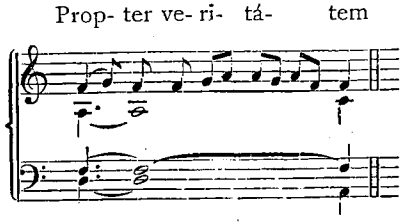
With the first part of the Gradual *Propter veritatem* we return rather to the type of the Communion *Tu mandasti* (indefinite mode): but although there is an E at *dextera*, the B-flat is much more emphatic; in this melody we shall be studying the habits of numerous Graduals in mode V; we shall subsequently complete our study by an examination of the Gradual *Omnes de Saba*, in which, by contrast, B-natural plays the principal rôle:



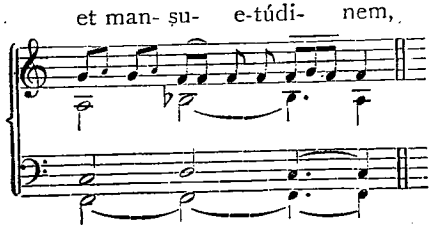
From the beginning of *justitiam* B-flat assumes so much importance and the tetrardus character is so marked, that an inattentive singer almost instinctively sings a full tone below the tonic at the beginning of *dextera*, i. e. E-flat instead of E-natural. Without any appreciable modulation, therefore, we are practically in the hexachord of B-flat.

1) The intonation and also the next phrase rest on F as a reciting-note. We must be careful not make any useless chordal changes. F major or D minor will suit; but first of all we must mark the end of *veritatem*.

In fact we can begin with D minor and end with the first inversion of F major — an extremely simple solution:

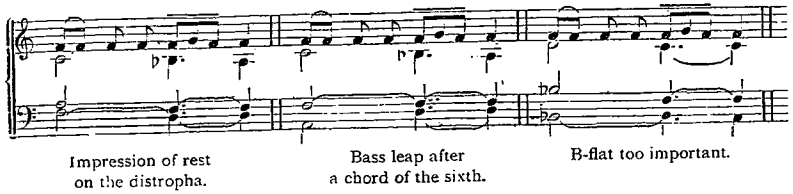


2) The cadence of *mansuetudinem* (torculus-and-punctum) requires the usual treatment. It is difficult to have an inverted cadence on the F without exaggerating the importance of B-flat (which would come in the bass in preparation for the suspension). If we set this cadence on D minor, we should have to use the first inversion of F (1) on the distropha (the root position being too heavy), which would be a bad cadence from the harmonic point of view. We therefore adopt the root position of F major for this cadence. If we have already begun with F in the bass (C major is impossible and G minor would again give too much importance to B-flat), we can hold it as a short pedal:



3) The next phrase ends very obviously with a protus cadence on G. We therefore set it on the chord of G minor, as the melodic intervals suggest, and we take care not to break the unity of the long group on the third syllable of *justitiam*. But we must mark the end of the word. Starting from the chord of G minor, we have no choice: we have only the first inversion of B-flat major which we can transform into the chord of D minor (with its seventh), ending with G minor. Notice that the first long G is the true cadence note: what follows is merely an embellishment of it. That therefore is where the cadence chord must be placed, with a tenor suspension resolving on the final punctum. The two melodic B-flats clashing with the tenor C (which is the suspension of B-flat) rather offend our modern eye (much more than our ear); but, as we have already observed in connexion with similar cadences, all these melodic notes are regarded as ornaments of

(1) Not D minor which is needed later; at the very least the bass D would come too soon from the rhythmic point of view. On the other hand, an A in the bass (first inversion of F major) could not leap up a fourth for the cadence chord (see the rules for chords of the sixth in Part I):



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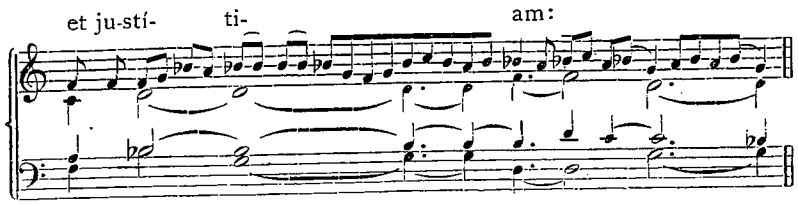
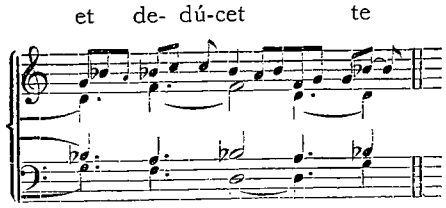
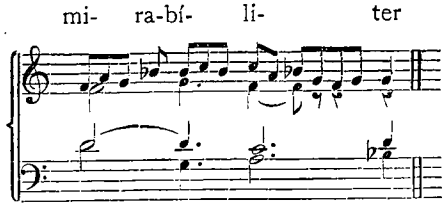
the cadence tonic (practically as unessential notes). The spirit of the rule concerning suspensions is therefore respected :



4) The next phrase likewise calls for G minor; we need it both for the beginning and for the end. But if our accompaniment is to be rhythmical, we need at least one intermediate chord. Already on the first syllable of *deducet* the repeated C invites us to treat this note as a harmony-note, the preceding B-flat thus being an unessential note. We could therefore have the root position of F, for example. And since the end of the word has to be marked, we once more use the first inversion of B-flat, which we can transform into the root position of D minor (without altering the bass) before returning to G minor :

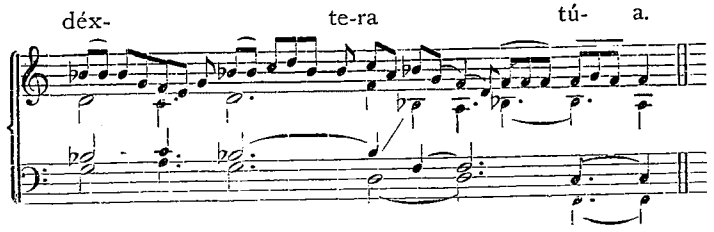


5) The same chord is required for the end of *mirabiliter*, but this time we use the first inversion. This is preceded by the first inversion of F as a chord of transition. Notice that the firm character of the bass, moving by step, corrects the harshness of the melodic B-flat and G on the chord of F. The beginning of the word must have D minor :

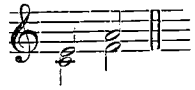


6) At *dextera* it is important not to treat the E-natural as a harmony-note; it intervenes rather furtively and must not be emphasized by using the chord of C major. Its true character is preserved if we give it

the first inversion of F (1) or D minor. If we want to avoid too many chords on the last syllable of *dextera*, we must take the B-flat as a harmony-note on the first inversion of B-flat, the C and the A being appoggiaturas. On the tristropha we can easily prepare the usual suspension for the compound cadence (torculus-and-punctum) :



Many text-books of harmony and counterpoint would condemn this final progression of the tenor and bass, not because of the hidden fifths (here quite excusable because the fifth is the fifth of the tonic), but because the tenor moves to a note (C) which is lower than the previous bass note (D). Similarly in an ascending passage :



This rule has no absolute value even in vocal music, and hardly applies to the key-board, and furthermore it concerns specific cases without having the force of a rigid principle (2).

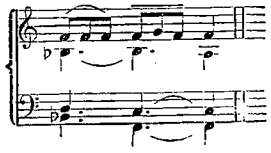
Once again, therefore, we have an accompaniment which has been dictated solely by the intervals and the rhythm of the melody, as if no other accompaniment were possible.

IV. Gradual : Omnes de Saba *(Epiphany)*.

The Epiphany Gradual presents difficulties of quite a different kind, for the first part uses only B-natural. But these two Graduals

(1) Theoretically the E then combines with the other parts to form the chord of A minor. But the ictus is on the F and coincides with a chordal change, and so does not give it this character.

(2) Anyhow, there is no reason why we should not write :



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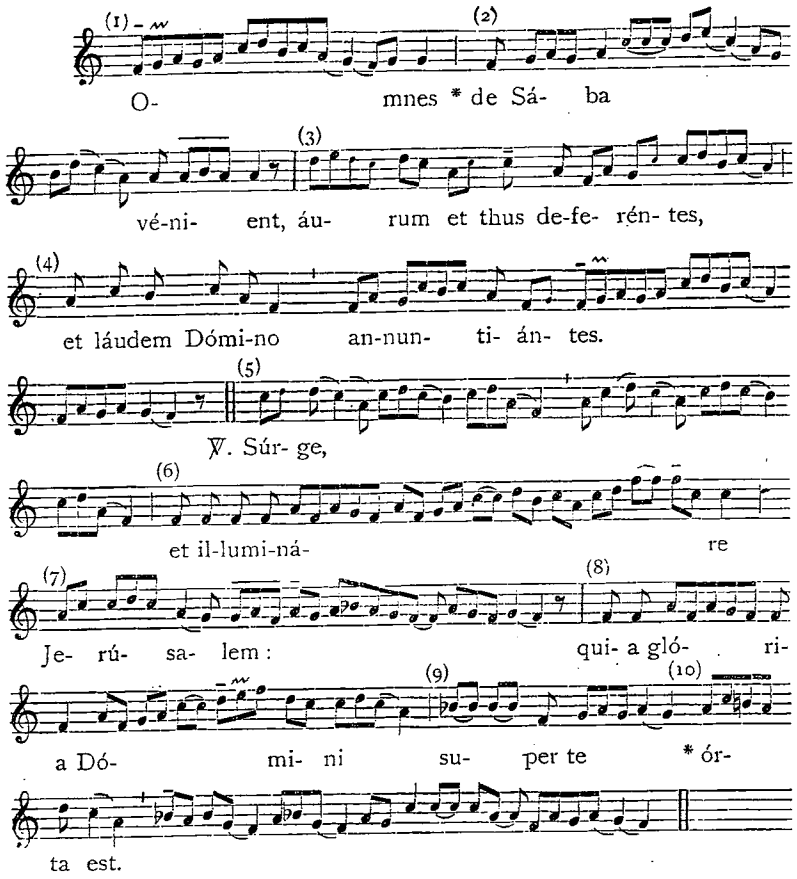
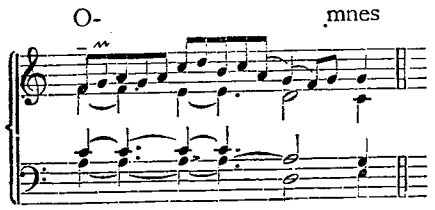
together with a number of cadences from various sources will illustrate the principal formulas of this type of tritus :



The chief difficulty arises from the fact that this melody often moves in the hexachord of B-natural and then returns quite naturally to the tonic F without the least incongruity : the accompanist's task, therefore, is to use the chord of F in the upper register only with the greatest discretion and to return to it skilfully when the melody re-enters the natural hexachord; at the cadence especially he must avoid any effect of a leading-note, for B-flat (which would be necessary for the plagal cadence) is now impossible.

1) The difficulty begins even in the intonation. Obviously we start with the chord of F major; but as soon as we reach the C, we have to find another chord (A minor or C major, chords common to

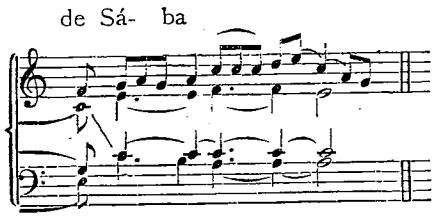
both hexachords), for B-natural is imminent, introducing a brief modulation. The end of the word must have C major; so there has to be another chord on the preceding pressus : as G major and E minor are much too violent, we must treat this pressus-G as an appoggiatura of F, on the chord of D minor :



Notice that, although there is a chordal change, we respect the unity of the vocalise on the first syllable by keeping the same bass note.

Once we have chosen our chord, we must always ask ourselves whether we are to use the root position or the first inversion; the answer will mostly depend on considerations of style and rhythm.

2) Now it is the tristropha of *Saba* that requires our attention; the first inversion of C would suit it well; but we must not forget that after a chord of the sixth, the bass ought not to move by leap, and we might easily be led to continue with the chord of A minor. Hence we prefer to put this tristropha on A as bass; and then if we have begun *Saba* on the root position of C major, a passing B-natural will do quite well to mark the doubled virga. But a long C (in the form of a pressus) is coming shortly afterwards, and therefore instead of writing A minor at once, we choose the first inversion of F, and the alto F descends to E on the pressus :



The compound cadence (torculus-and-punctum) of *venient* requires the usual suspension in the tenor, which is difficult to prepare with the chord of G major owing to the melodic intervals, and anyhow the chord of G major would be rather abrupt in the general context. The plagal cadence (D minor in root position, followed by A minor) is more suitable,

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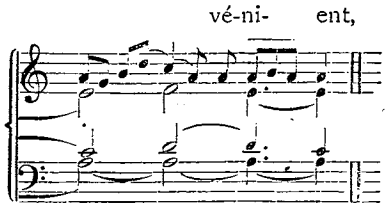
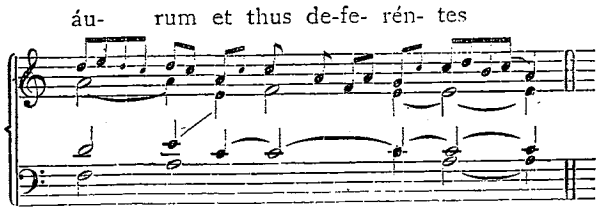
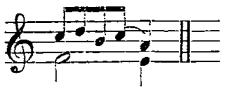
and we can take the pressus-C as a seventh; the rest can all come on the same bass note. This gives us :



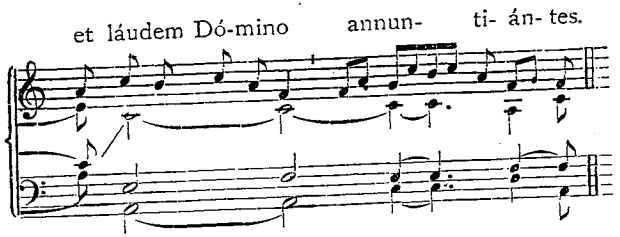
It is best to treat the B and D of the melody as unessential notes without changing the chord, in order not to break the unity of the vocalise, and to reserve our changes for the more important ictus.

3) Once more it will be better to avoid the chord of G major. D minor is possible as a chord of movement and is better suited to the previous and subsequent context. On the second syllable of *aurum* we return to A minor, which is indicated by the melodic intervals; a simple movement in the alto marks *thus* and at the same time prepares for the subsequent descent of the melody to F. The fourth G—C naturally demands C major, and the end of *deferentes*, A minor; we can maintain this chord up to the final punctum inclusively; at this point we could use the first inversion, but it is not necessary :

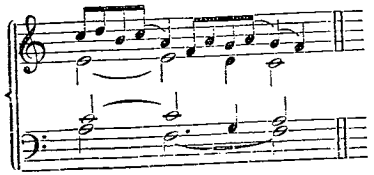


or the alto might end thus : 

4) There is no point in changing our chord. The end of *Domino* would fit D minor perfectly; but this chord would not suit the beginning of the next word, for the chord of C (demanded by the beginning of the second syllable) following D minor would give almost unavoidable fifths. We must therefore decide either to make a change on the first syllable of *annuntiantes*, or better, to write the first inversion of F at the end of *Domino :* the bass does not change (although the tenor movement alters the chord); but the previous chord of A minor is placed on an important ictus; hence our accompaniment is rhythmic :

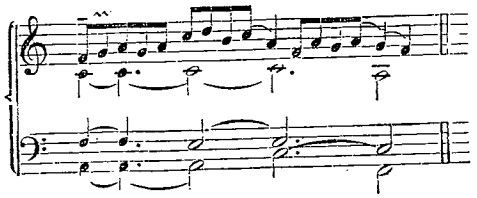


It would obviously be a mistake to treat the subsequent B-natural as a harmony-note. It is a good plan to mark the beginning of the last syllable of *annuntiantes*, as we have done, with the tonic chord of F (inverted because of the subsequent quilisma); but as in the intonation, it must change to A minor (first inversion on the doubled punctum) on account of the melodic B-natural. But how are we to accompany the cadence? If we are absolutely set on avoiding the perfect cadence, we must establish a short bass pedal, over which the alto and tenor move so as to lead as neatly as possible to the third inversion of a chord of the seventh, but without the third of the root (which would be B-flat), thus giving the illusion of a plagal cadence :



This is obviously not very elegant.

Perhaps we shall prefer the so-called perfect cadence, with an attempt at disguising the leading-note effect : in that case the E must come in the tenor and must descend to C :



All this shows once again the difficulty of accompanying plainsong and the impossibility of finding a really faithful harmonic interpretation.

5) We begin the verse on F major. But on the end of *Surge* we must provide for the B-natural and write A minor. The long B-natural cannot be treated as an unessential note and, as always, we must avoid another chordal change immediately afterwards, which means that there are at least two unessential notes in the subsequent group; the final

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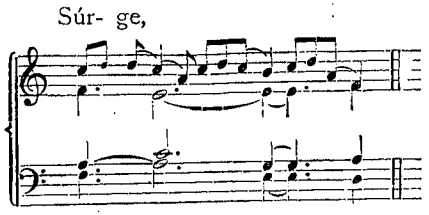
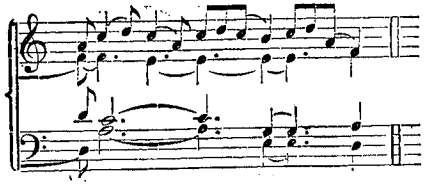
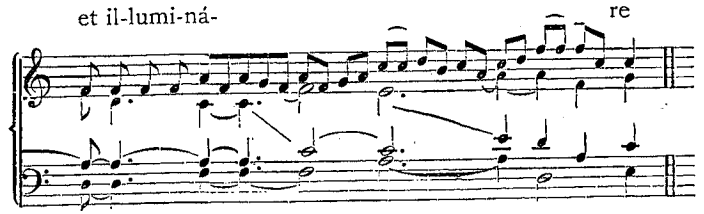
F needs the chord of D minor, which is less abrupt than F major after the B-natural. We therefore have :



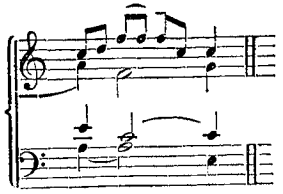
For the next phrase, which practically repeats the same melodic formula, we repeat the same harmony, except that we introduce a 6—5 suspension in the alto in order to mark the two pressus :



6) We begin *illuminare* on the previous chord, making a change on the accented syllable so as to mark the beginning of the long vocalise; the next change comes on the distropha (C) which requires the chord of A minor because of the approaching B-natural; that is followed by D minor for the high F, and the first inversion of C for the end of the word :

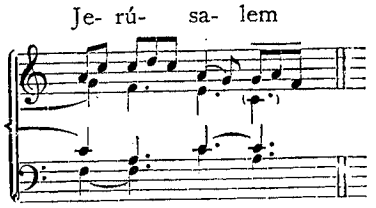


Of course, the descending fourth F—C indicates the chord of F ; yet D minor is possible, over which the first C is treated as an anticipation With the first inversion of F the high note would be far less emphatic :



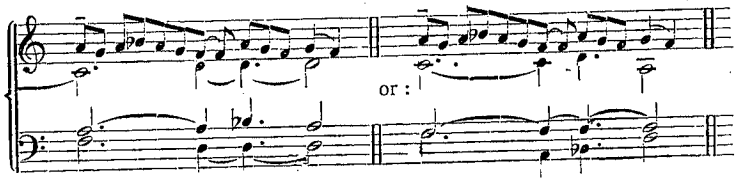
In any case, either version is possible.

7) The previous context indicates F major for the beginning of *Jerusalem* (a 9—8 suspension provides an excellent link). We make a change on the pressus (C in the bass), and then take the G of the last syllable as an appoggiatura of F :

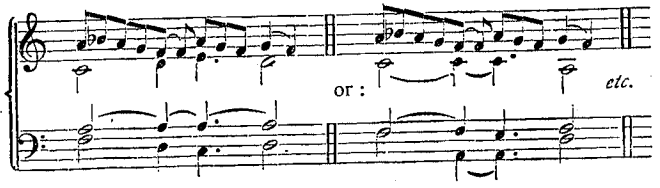


The sequel is not easy : obviously the B-flat must be treated as an unessential note.

Moreover, in spite of the full-bar, the cadence is not very conclusive, and we can "interrupt" it (with D minor) as we so often do for tritus cadences which are not final. With B-flat in the accompaniment, we have a very simple solution :



But is it not better to avoid B-flat (although it has just occured in the melody)? For example :



8) We must mark the end of *gloria* (either with D minor, preceded by F major, or with the first inversion of F : we prefer this last solution rather than beginning on D minor and returning to it by way of F major). The sequel offers no difficulty : it is all in the natural hexachord : we must mark the distropha and then the ictus before the quilisma; but at the end of the word we must provide for the very emphatic B-flat which follows, by which a clear modulation is

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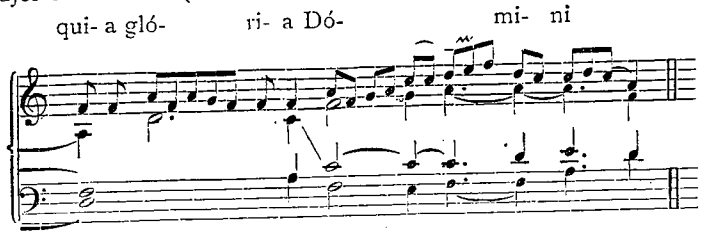
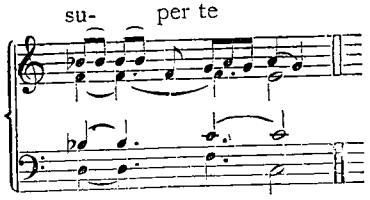
established : and so for the final A we avoid A minor and use either F major or D minor (chords common to both hexachords) :

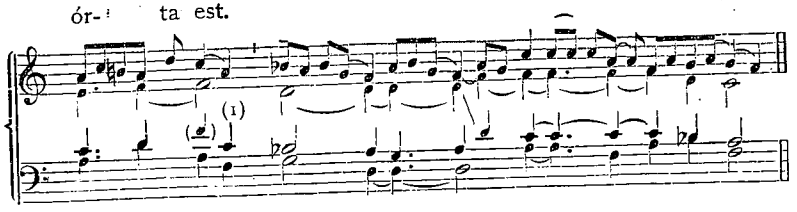


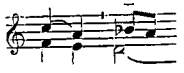
9) At *super*, in fact, we have a characteristic modulation to the hexachord of B-flat : we need either G minor or the first inversion of B-flat : the latter is better on account of the descending fourth of the melody. But B-natural comes at *orta* and therefore C major is necessary on the pressus of *te;* and in order to avoid having the chords of B-flat and C too close together, they can be linked up with an intermediate chord of F on the beginning of *te :*



10) Only A minor fits the beginning of *orta;* but the melodic fourth A—D demands D minor (despite the closeness of the two chords). We must not return to A minor for the pressus of *est* because the sequel clearly belongs to the hexachord of B-flat (an indefinite tritus-tetrardus formula); instead we use F major and then reflect the emphasis which the melody gives to B-flat by employing the general harmonic atmosphere of F major or D minor. We can finish with the plagal cadence easily enough.

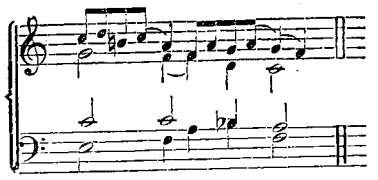
The long notes act as land-marks for chordal changes :



(1) An alto passing-note is possible :  *etc.*

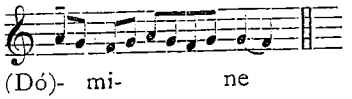
When B-natural occurs in the context, tritus cadences are a source of great difficulty. Here are some examples :

1° Gradual *Constitues* (before the verse). This cadence is the same as that of *Omnes de Saba* (also before the verse) and might be treated the same way; but since the whole of the first part systematically uses B-flat, the plagal cadence seems to be possible :

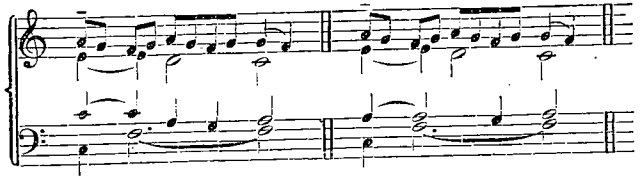


2° Gradual *Tribulationes* (Second Sunday of Lent)

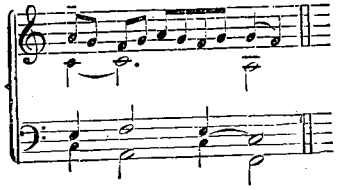
a) before the verse :



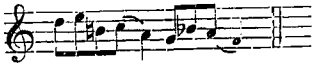
This is a compound-cadence formula. Its character can be preserved in the following way, although the writing is awkward :



Although we have to mark the beginning of the cadence-formula, we are not obliged to limit ourselves to a single bass note; in this case we could end with the so-called perfect cadence :



b) cadence of the verse :



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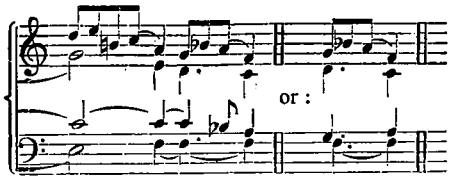
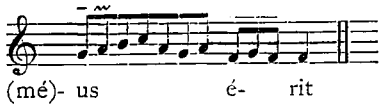
Here there is no question: we must treat the B-natural as an unessential note and finish with the plagal cadence. As far as possible B-flat should occur first in the melody before appearing in the accompaniment:

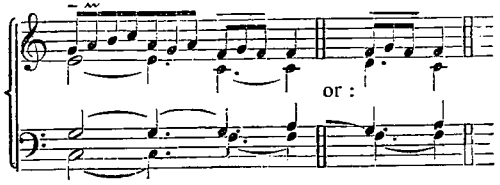


In the first solution the melodic B-flat, anticipating the suspended B-flat of the tenor, is nothing more than an ornament.

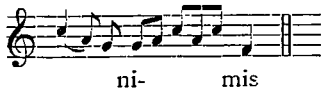
3° Communion *Qui mihi ministrat* (Second Mass for a Martyr not a Bishop):



Here the usual tenor suspension could be a lower suspension (resolving upwards): the upper suspension would give B-flat:

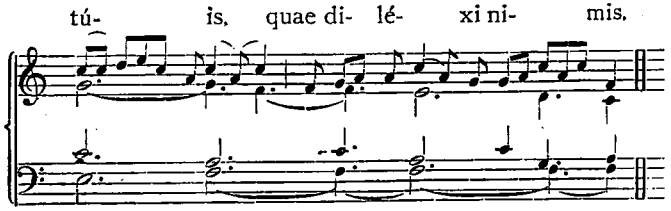


4° Introit *Loquebar* (First Mass for a Virgin Martyr):



The chord of F ought not to come until the end of *nimis* so as to have its proper rhythmic importance, and this is precisely the difficulty. On the other hand, if we have C in the bass followed by F on the end of the word, we have octaves between the outside parts, which we must avoid; and moreover we have a frankly modern cadence.

We must therefore seek to establish a tonic pedal on the end of the previous phrase, and maintain the movement by means of the alto and the tenor: this may not be very elegant, but it is preferable to a formula that is either modern or anti-rhythmic:



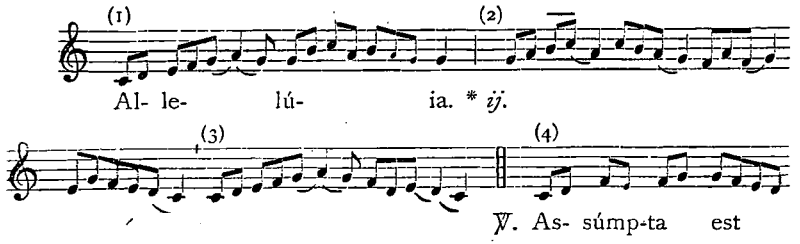
All the difficulties we are likely to meet in authentic-tritus cadences are similar to those we have just discussed.

V. ALLELUIA: ASSUMPTA EST

(Assumption of Our Lady).

At first sight the Alleluia *Assumpta est* appears to be written in our modern major scale of C major. The high B-natural clearly indicates the tritus; but notice that the semi-tone below the cadence-tonic is systematically avoided: hence in itself the cadence is indefinite. This is exactly the same thing, a fourth lower, as we find in the Sanctus and Agnus of Masses IX and XVII. Moreover an examination of the Antiphon *Cum audisset* (Palm Sunday), for example, shows that, rather than employ the leading-note, plainsong uses a full tone below the tonic in such cases; the Vatican Edition, of course, has B-natural, but everybody agrees that this reading is incorrect: it should be B-flat. Furthermore a study of the plagal tritus confirms this.

In practice, therefore, B-natural must be excluded from our accompaniment of the lower part of the scale; it belongs to the upper region. But cadences on G, the middle note, may have the chord of G major, even when the melody approaches from below (such cadences may be regarded as tetrardus). There is always the distinction between the two hexachords to remember (1):



(1) We take this Alleluia from the feast of the Assumption because it is under this form that it is most generally known. The same remark applies to the other melodies. Sometimes the original form is set to other words, less well known.

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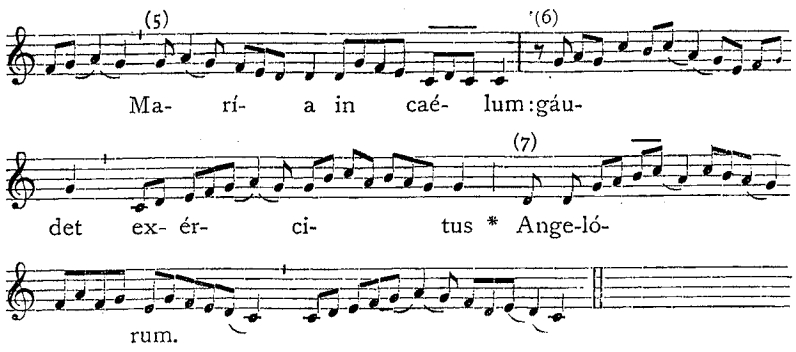
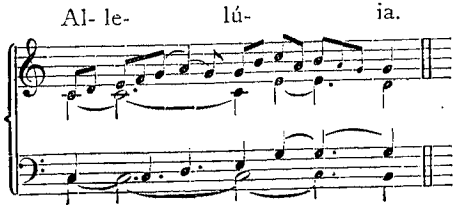
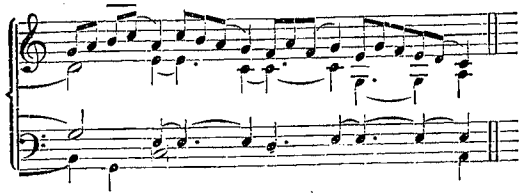


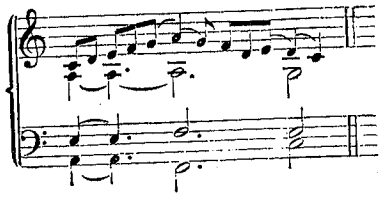
1) The whole of the first phrase can easily come on the root position of C major, changing to the first inversion of G for the end of the word. And so, to begin with, B-natural is treated as an unessential note. The pressus is marked by a subsidiary movement in the tenor :



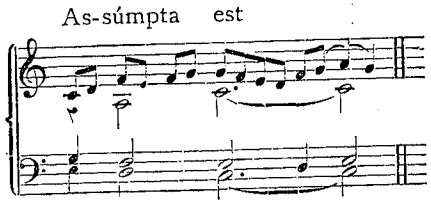
2) The jubilus begins on the same chord (G). The doubled A is in the hexachord of B-natural and can only have the chord of A minor (not F major or D minor). In our opinion it is not necessary to have very distinct chords for the two doubled G's that follow : for if we accompany them with G major, the subsequent F demands an immediate change in each case; the thetic character of these two G's is not very marked and the first long note (the A) has already received its proper chord, so we content ourselves with subsidiary movements. Hence we keep C in the bass; and avoiding all useless change, we alter nothing until the melody descends to the low C : here, in virtue of our rhythmic principles, we put the chord of A minor :



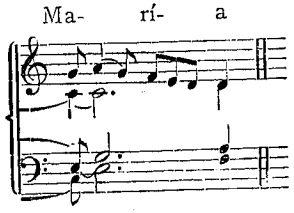
3) A minor is now indicated until we come to the pressus, on which we prepare our plagal cadence (F in the bass) :



4) The verse can begin on the same chord of C (first inversion, for example), but after that, F is too emphatic for us to avoid D minor or F major. The word *est* can rest on the chord of C once more, but we must introduce a movement in the tenor in order to give the appoggiatura-pressus its proper character :



5) We now have to consider the end of *Maria :* D minor is necessary (not G major), if possible in its first inversion : the bass can move up to F if we put E in the bass on the pressus (we place G in the tenor to avoid the effect of a six-four chord) :



Notice that we have to reserve the chord of D minor for the right moment, resisting the temptation to put it on the accented syllable of *Maria.*

The torculus-and-punctum cadence of *caelum* is typical and we must use the plagal formula, with the usual suspension in the tenor.

There are however two difficulties : the first concerns the melodic fourth D—G which must certainly not have the chord of G major : the G must therefore be treated as an unessential note, even if the result is

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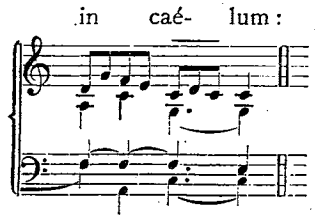
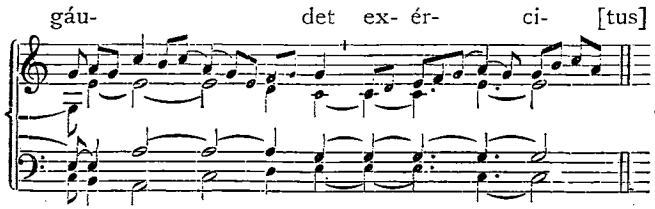
not very elegant; the second difficulty is that the plagal cadence with F in the bass produces octaves between the outside parts, the melody descending from F to C with E in between: the simplest solution is to invert the chord of F, although in principle it is not good to break the unity of a group of four notes. We therefore have:

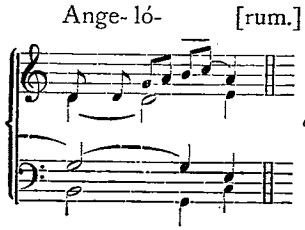


6) It would be a good plan to mark the beginning of the vocalise of *gaudet*, while keeping the principal chord for the high C. As we already have C in the bass, a bass passing-note B leads very smoothly to the root position of A minor, which we can invert on the pressus; this reduces our chordal changes to the minimum. But the end of *gaudet* requires a change in the bass; the simplest thing is to proceed to E by way of D minor, and this links up very well with what follows;



etc., as above.

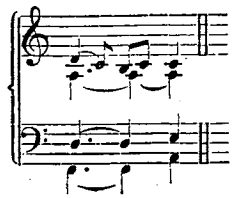
7) On principle low D's do not take the chord of G major; but here the low D's of *Angelorum* are sandwiched between two G's that have this chord, and therefore it suits very well. We may therefore write:



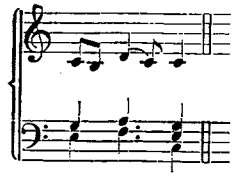
etc., as above.

We can see how little this melody resembles our modern tonality of C major.

With regard to the low B-naturals which the Vatican Edition gives in the Antiphon *Cum audisset* (mentioned above), if the organist were ill-advised enough to avail himself of the opportunity for a so-called perfect cadence (G major followed by C major), he would multiply by a hundred-per-cent a mistake which is already very regrettable. Hence at *Jerosolymam* we should write:



a half-cadence, interrupted), and for the final cadence:



2. — The Plagal Tritus: Mode VI.

We shall not spend long on the plagal tritus, whose cadences — the chief element and sometimes a difficulty — do not differ from those of the authentic mode.

We find the indefinite cadence, with B-flat; and even entire melodies in the hexachord of B-flat alone, such as the Introit *Requiem* (cf. the Communion *Tu mandasti*).

We also find cadences with B-natural: the Offertory *Confitebor* (Rogations) and the Communion *Dicit Dominus* (Second Sunday after Epiphany): here there is the same problem, with the same solution, as for V-mode cadences. There is no point in increasing the size of this book with an analysis of these melodies, otherwise we should have to analyse the whole repertory.

What is proper to the plagal mode is its lower fourth, and although in the truly authentic texts no cadence concludes with a semi-tone below the tonic, yet (except the frequent case when B-flat determines a modulation and often also an indefinite cadence) there remains the cadence-formula which starts in the lower register and ends in the natural hexachord. *A priori* we might imagine that in this case it is the perfect cadence that is required, not the plagal. It is true that, by hypothesis, B-flat does not occur in the melody and on the other hand that E is in the context of the lower fourth. But of two evils one must choose the lesser: when we find B-natural in the melody we cannot use B-flat in the accompaniment, so we use the perfect cadence with all the necessary precautions to avoid the effect of a leading-note; but, apart from that case, a B-flat (required for a plagal cadence) used in a chord of movement, is always a lesser evil than a leading-note, which is foreign to the whole atmosphere of plainsong. Furthermore, B-flat is sufficiently in accordance with the general habits of mode VI.

It is especially in this that the plagal tritus differs from the authentic.

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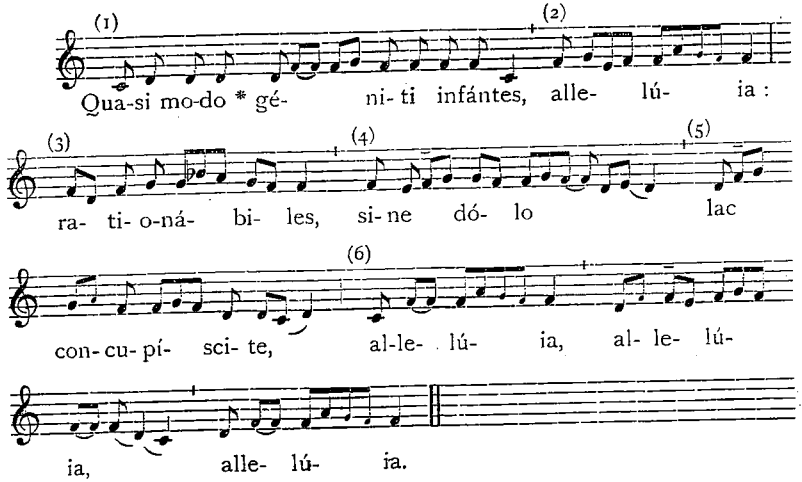
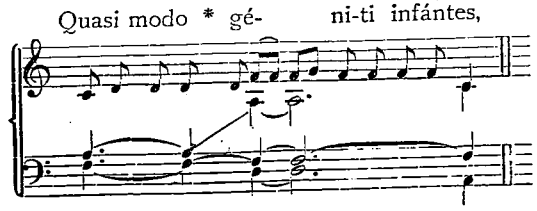
Now for some examples :

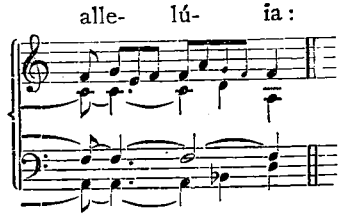
I. INTROIT : QUASI MODO *(Low Sunday)*.



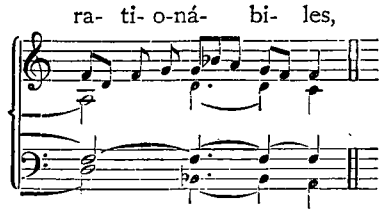
1) For the beginning it is clear that we require D minor; there is no point in making any change until the end of *infantes*, which must obviously have the first inversion of F major; the question of B-flat has therefore not yet arisen :



2) But already the first *alleluia* is somewhat embarrassing; as the cadence is in no way conclusive, we can end on D minor; in that case we might have the root position of F on the second syllable of the word; on the other hand, especially if E does not figure in the harmony, a transitional G minor would lead very well to our chord of D minor :



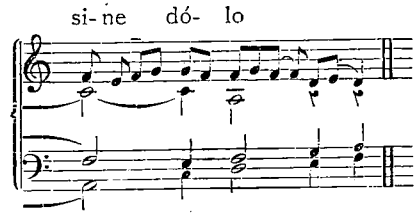
3) At *rationabiles*, since B-flat comes in the melody, we can treat it as a harmony-note; but instead of ending again on D minor, we proceed to the first inversion of F :



Notice that if our interpretation (for it is an interpretation, not a mere translation) gives more emphasis to B-flat than to E (which hitherto has appeared only once), it is consistent, for the chord of C is not used and our harmony remains hexachordal.

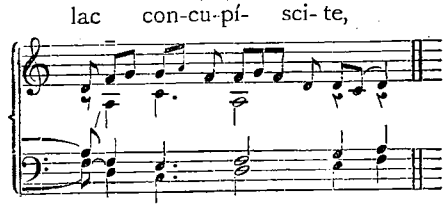
4) We now have two E's and a protus cadence on D; we prefer to avoid B-flat.

And so, following the indications of the melody, we use the chords of C major and D minor :



At the end of *dolo* the chord falls on the second syllable and not on the ictus before the oriscus; in a case like this, a 9—8 suspension would have been excellent; but E in the alto would have been so close to the melody that it is more discreet to have it in the tenor.

5) The next phrase is much the same :



For the end of this phrase, compare the intonation of the Introit *Exsurge*. What we have written is not perfect from the rhythmic point of view, but it is practically the only possibility.

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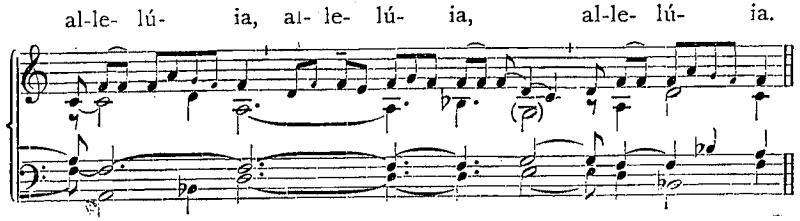
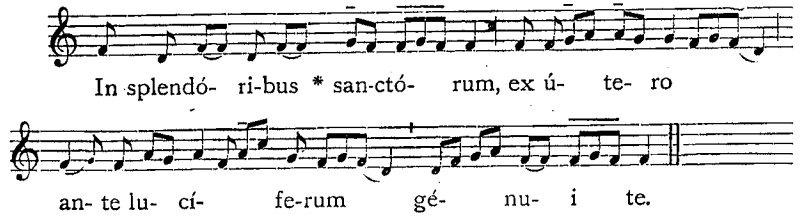
6) For the final *alleluias* we come back to B-flat; but the cadence of the second belongs to the tetrardus (on C) and therefore has the chord of C major (first inversion):



The alto B-flat in the second *alleluia* has the two-fold advantage of marking the end of the word (although the principal ictus comes on the pressus) and emphasizing the tetrardus-character of the cadence.

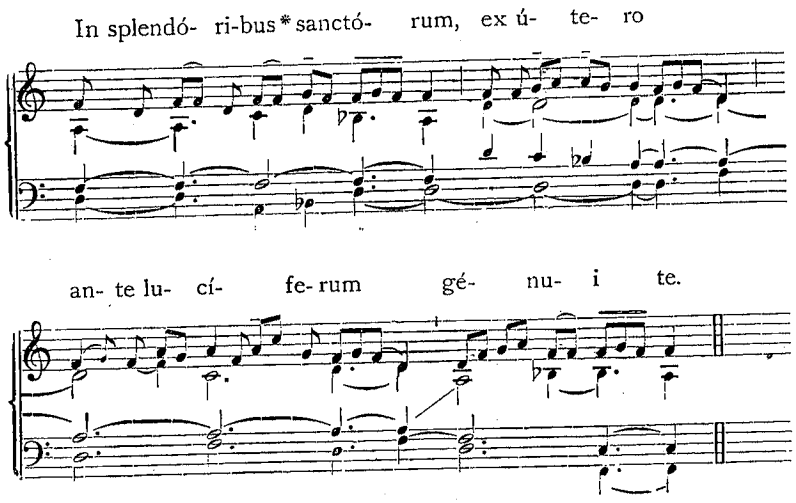
The Introit *Hodie scietis* (Christmas Eve) belongs to the same type and is interpreted in the same way. The Introit *Esto mihi* (Quinquagesima) does not contain a single B-flat (nor yet B-natural); we give it the plagal cadence, and passing B-flats are also possible apart from the cadence. (Notice that when the compound-cadence formula consists of a torculus and a punctum, the plagal cadence is much more supple than any other). In the Introit *Dicit Dominus* (Twenty-third Sunday after Pentecost) a B-natural (very fleeting, it is true) intervenes before the cadence. Up to that point B-flat has played a very important part (two low B-flats, an indefinite cadence at *afflictionis*, the cadence of *exaudiam vos)*, so that we must first treat the B-natural as an unessential note and then return to B-flat for the plagal cadence formula, which in any case presents no difficulty.

II. Communion: In splendoribus *(Midnight Mass of Christmas).*



The case of the Communion *In splendoribus* is very curious: it does not contain a single semi-tone; its indefinite character is therefore complete. We could maintain that E is implied : but that is only because of the way the melody is written; for if it were written a degree higher (on G), we should certainly not think of F-sharp (the semi-tone below the final). As we need B-flat for the plagal cadence, we avoid E altogether: in other words, we confine our accompaniment to the hexachord of B-flat.

In other respects the melody constantly suggests D minor or F major. There is therefore nothing to do but prepare the cadences, which are all compound: *sanctorum* (torculus-and-punctum), *utero*, *luciferum*, and the final cadence (torculus-and-punctum): only the last is conclusive. Here then is what we might have:



Of course this is lacking in variety; but so also is the melody. This Communion is not a unique example: we find the same sort of thing, for instance, in the Offertory *Domine convertere* (Sunday within the Octave of Corpus Christi) and in the Communion *Tu es Petrus* (Saints Peter and Paul): both are accompanied on the same principle.

III. Leading-note Cadences in the Vatican Edition.

There is no doubt that the semi-tone cadence at the end of tritus melodies is not authentic; but in fact we sing it. We have already cited an instance (Antiphon *Cum audisset)* and indicated the best way to accompany it. On principle the leading-note is treated as an unessential note on a plagal cadence, and every precaution is taken to avoid the harsh effect of the E of the melody against the B-flat of the accompaniment. So much for final cadences. Secondary cadences are always best "interrupted" with the chord of D minor, in which case the E can be a harmony-note.

Thus in the Communion *De fructu* (Twelfth Sunday after Pentecost) the half-cadences on the word *terra* (two of them), in which moreover

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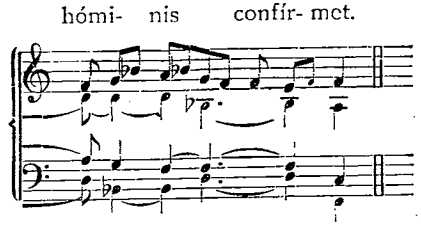
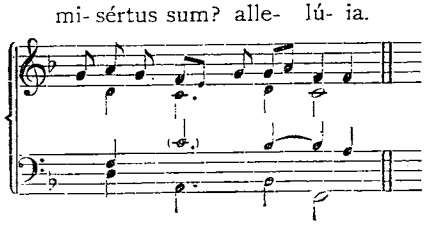
the semi-tone is not immediate, can be "interrupted" with advantage. But the final cadence is difficult:



The B-flat is prepared before E comes in the melody, and the chord of B-flat is inverted.

The cadence of *ierit* in the Antiphon *O quam gloriosum* (All Saints) is treated the same way, and so also the Antiphon *Benedicta sit* (Trinity Sunday).

The cadence of the Antiphon *Serve nequam* (Twenty-first Sunday after Pentecost) is much easier. Here it is, transposed onto the final F:



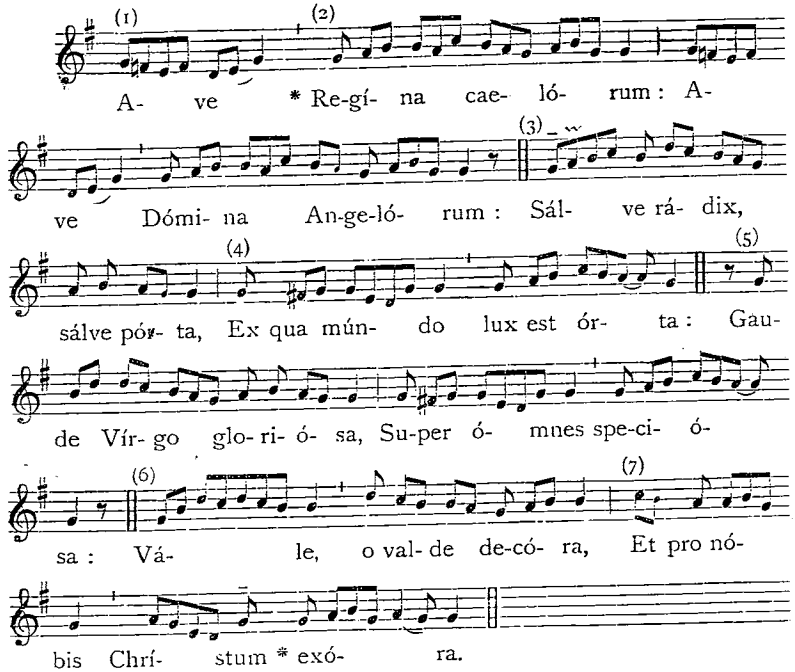
IV. On C. Antiphon: Ave Regina.

The plagal tritus normally descends below its tonic, and therefore if we find it on the final C, it is very probably because the semi-tone changes, i. e. with B-flat there is a full tone below the tonic and with B-natural a semi-tone, with consequent modulations between the tritus and the tetrardus. This is the case in the Antiphon *Ave Regina*. Notice also that the Antiphon *Adorna* (Purification) is written on C merely to avoid the low B-flat (the Introit *Dicit Dominus* cannot avoid it because of the subsequent high B-natural): for B-flat becomes F when the final is changed to C.

By transcribing the *Ave Regina* with G as final, we can more easily perceive that all the first part is pure tetrardus. The tritus is determined by the B-naturals (F-sharps in our transposition) of *ex qua* and *super;* but the last section is absolutely indefinite, which we know is quite in

accordance with the habits of the tritus; but in this case the indefinite character is all the more remarkable on account of the beginning of the melody.

Here is the Antiphon, with G as final:



Setting aside the F-sharp, which is only in the signature to make the transcription accurate, we observe 1) that the intonation is clearly tetrardus, 2) that all the cadences are indefinite, and 3) that the two F-sharps have no appreciable influence on the general melodic line.

In practice, therefore, in the key we have chosen, 1) for the intonation we must avoid using B (representing E in the original, forbidden in the hexachord of B-flat to which this intonation belongs); 2) all our cadences must be plagal, avoiding both F-natural and F-sharp; 3) both F-sharps must be treated as unessential notes; F-natural is possible in the intonation formula.

Now that these questions are settled, the accompaniment is not very difficult.

1) The chords of G major and E minor are forbidden in the intonation. The appropriate chord is C major; but we must mark

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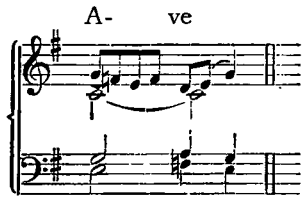
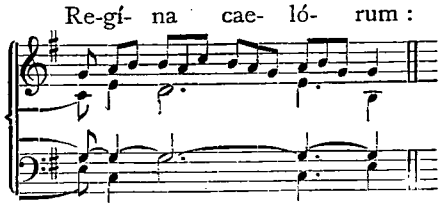
the end of *Ave* with a light chord (the first inversion of D minor) so as to be able to return to our original chord for the cadence :

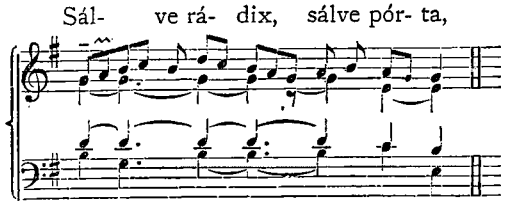


2) The sequel demands G major or E minor; we interrupt the cadence (which is marked merely by a half-bar) with the chord of E minor :



The second clause is an exact repetition of the first and requires no modification of the accompaniment we already have. At its beginning the alto B rises to C. And the cadence of *Angelorum* is not interrupted, but has the chord of G major.

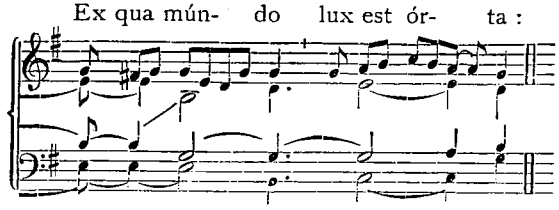
3) At *Salve* the melody again indicates G major; but when we come to the end of *porta* we can again interrupt the cadence (which is only provisional) with E minor :



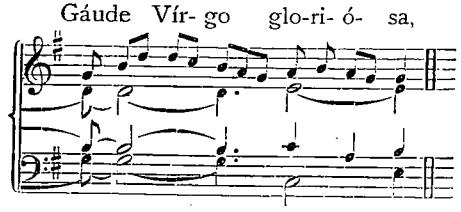
On the ictus before the quilisma we invert the chord, as always, so that the melody does not double the bass.

4) Here we can keep the chord of E minor (F-sharp being treated as an unessential note); the end of *mundo* is marked by the

first inversion of G major, and the plagal cadence follows without difficulty :

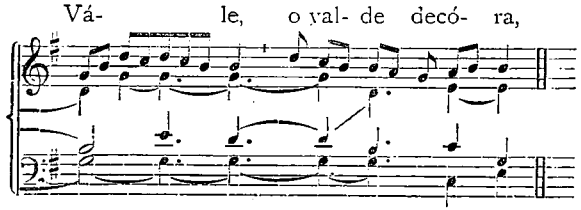


5) The next phrase is very much the same :

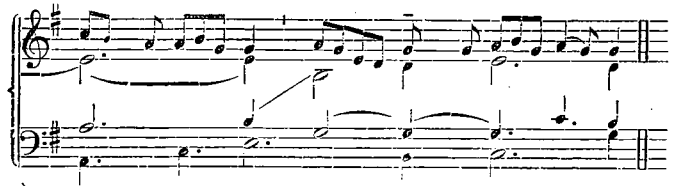


The rest as above.

6) The first member of the last section obviously rests on the chord of G major; but the end of *decora* could have E minor. Before returning at the end of *Vale* to our initial chord, we take advantage of a secondary ictus to insert a transitional movement in the tenor :



7) Now the chord of A minor is indicated, moving (on the end of *nobis)* to E minor or the first inversion of G. A chordal change is required on the end of *Christum*; then we have only to introduce the plagal cadence :



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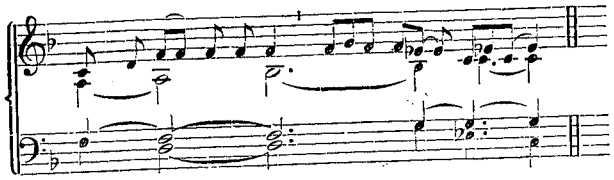
Notice how often an accompaniment is easy to conceive and realize, once the modal analysis has been well made. We no longer have to expatiate on the alleged abnormal types of this or that mode, but simply to follow the melodic line step by step.

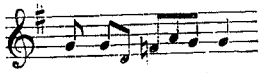
With the Antiphon *Ave Regina* we may profitably compare the Offertory *In virtute* (Second Mass of a Confessor not a Bishop), which, apart from the word *Domine*, follows the ordinary habits of the tritus. Here it is, transposed :

In virtú- te tú- a, * Dó- mi- ne,



On the subsequent pressus we should again use the chord of B-flat, and avoid reintroducing F major until the melody subsequently imposes it; from that point we have quite a normal VI-mode melody, which (apart from this one word *Domine)* could have been written on F, with B-flat all through.

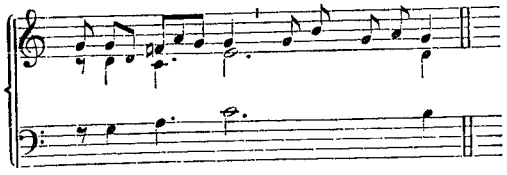
The Communion *Circuibo* (Sixth Sunday after Pentecost) begins exactly like an VIII-mode melody, and this impression remains undisturbed during the whole of the first section. Transposed onto G (from C) it is as follows :



Cir-cu- í- bo

As the character of the third is not defined and the intonation-formula is common also in mode II, we have a difficult choice; but choose we must, and so we write (leaving the first chord without its third):

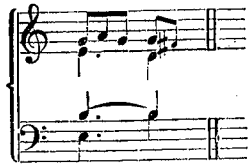
Circu- í- bo, * et immo-lá-bo



All the rest of the first section is rigidly indefinite. The second section decides in favour of the tritus by using B-natural (F-sharp in our

transposition), but the final cadence is once again indefinite (plagal cadence). At the word *psalmum*, in order to avoid emphasizing the F-sharp, write as follows :

psál- mum



The F-sharp at *cantabo* should be treated as an unessential note.

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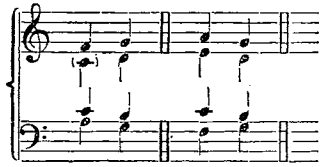
CHAPTER IV.

THE TETRARDUS.

The tetrardus is written on G. In the Vatican Edition at least, only the Responsory *Jesum tradidit* (Holy Week) is on C. Apart from a few intonations in the plagal mode, B-flat practically never occurs. so that we have to deal with the hexachord of B-natural and the natural hexachord.

Three types of harmonic cadence may be employed :

1° With the bass moving by step;

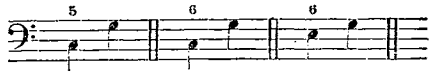


Notice especially the chord of the major seventh in the second example, which is always excellent, even when the seventh is not prepared; whereas if the alto doubles the bass F, the effect is often in violent contrast with the context.

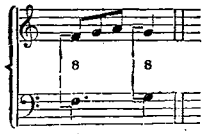
When the melody introduces into the same group both the degree above and the degree below the tonic, these formulas give octaves between the outside parts (1) and are therefore impracticable (unless we adopt the rather puerile expedient of exchanging notes between the two parts); they must therefore be replaced by one or other of the following formulas.

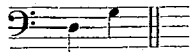
Furthermore, if the mode is indefinite (inasmuch as the melody has not introduced the degree below the tonic), we must use the plagal cadence.

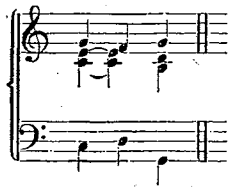
2° The plagal cadence :



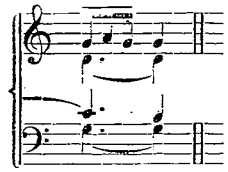
(1) For example :



3° The following formula :  in which the D may have its seventh (necessary for the preparation of a suspension) and sometimes also its ninth :



For compound cadences, each of these types permits the preparation of a 4--3 suspension on the tonic chord :



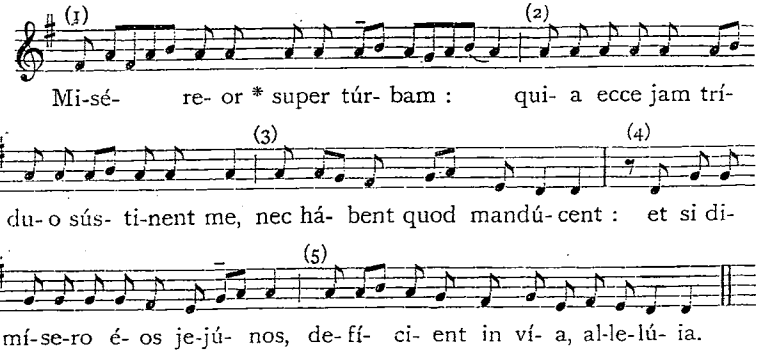
1. — The Authentic Tetrardus : Mode VII.

Perhaps no other mode has such constant habits as mode VII, and if it presents serious difficulties with regard to accompaniment, at least we can say that the difficulties are always the same.

Sometimes in short melodies, this mode is satisfied with the compass of a fifth above the tonic : this is the case in the Antiphon *Misereor :*

I. ANTIPHON : MISEREOR SUPER TURBAM

(Sixth Sunday after Pentecost).



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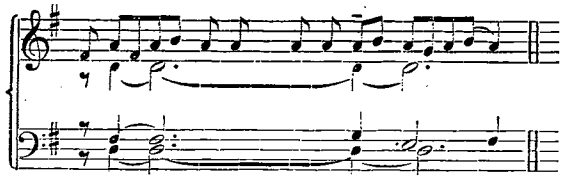
We transpose this Antiphon a fourth lower in order to have it at a more practical pitch, and we shall do the same for the other melodies of this mode. The melody avoids the degree below the tonic; we must do likewise.

1) The first phrase is, so to speak, a mere recitation on the fifth of the tonic: the elevated character of the Latin accent (at *misereor* and *turbam)* is marked by a rise to the degree above (the same thing occurs later at *triduo* and *sustinent).* We therefore establish ourselves on the tonic chord (D major in our transposition) and stay there. But although the melodic and musical rhythm is very much reduced, we have to consider the cadence. Now the episema on the accent of *turbam* seems to indicate a sort of redundant spondaic cadence with a decoration of the final syllable. In default of any more expressive melodic line than this simple recitation, the rhythmic indications are not very compelling. We write the following, with a movement in the tenor:

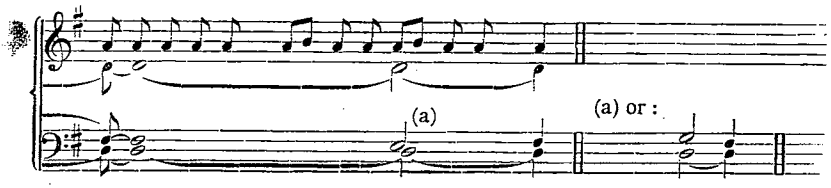
Mi- sé- re- or * super túr- bam :



The worst kind of accompaniment is that which dissects the recitation by marking the merely logical ictus: in cases like this we must leave the words to look after themselves, and merely mark the cadences.

2) The second phrase is of exactly the same type, and we use the same methods without bothering about monotony; we do not even trouble to mark the accent of *triduo,* and if we mark that of *sustinent* it is solely in view of the cadence:

qui- a ecce jam trí- du- o sús- tinent me,



3) The last phrase of the first melodic sentence ends with a cadence on the tonic. We must use the plagal cadence, but in its fundamental form we see at once that it will give octaves between

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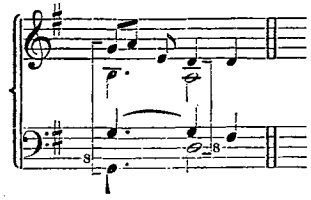
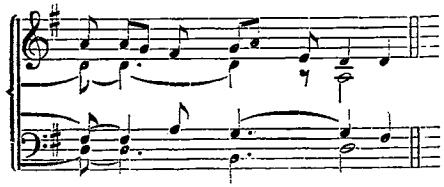
the outside parts; this could be remedied by contrary motion between melody and bass:

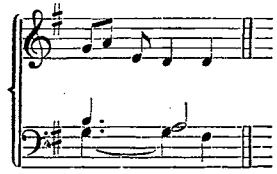


We prefer to invert the chord of G:

nec há- bent quod mandú- cent :

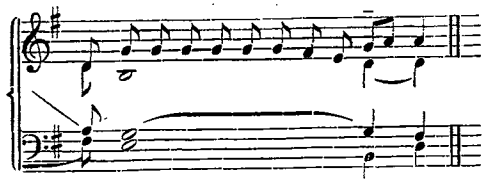


But we might even invert the final chord and put the suspension in the bass:



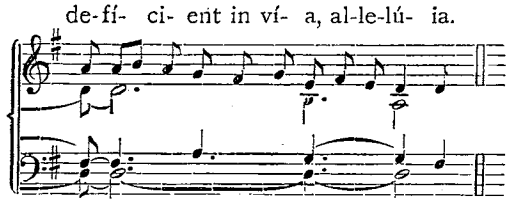
4) There now follows another recitation, this time a fourth above the tonic (in the original and authentic version it is a third above the tonic, not a fourth: cf. Monastic Antiphonar). We accompany it on the chord of E minor, marking *(ad libitum)* the episema of *jejunos,* and ending on the chord of D major:

et si di-mí-se-ro é- os je-jú- nos,

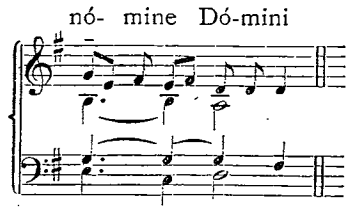


Once again notice the position of the alto in regard to the melody (and, in consequence, the position of the tenor) especially in accompanying recitations.

5) The end presents no difficulty, and the plagal cadence comes quite naturally; we can make good use of a tonic pedal :



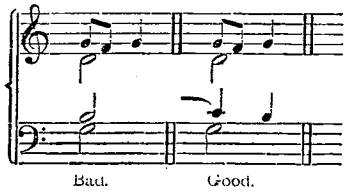
Some Antiphons, equally short, introduce the note below the tonic in the course of the melody. In such cases we can introduce this note in our harmonic formula for the cadence. Thus, for example, in the Antiphon *Hosanna* (Palm Sunday) :



Similarly for the final cadence.

We already know how to treat cadences on F (original pitch) when they occur in the hexachord of B-natural; they are fairly frequent in mode VII (1).

When this note occurs in the melody, remember that it may never come on the tonic chord except when the third of the chord is suspended by an unessential note which moves to the third (e. g. a genuine suspension, an auxiliary-note, a passing-note or an appoggiatura) :



(1) Such cadences establish a modulation to the natural hexachord, F not being possible in the hexachord of B-natural except as a note of movement.

II. Development of the Scale : Gloria IX.

When the scale is developed in the upper register, the melody obeys the following laws.

The octave G—G is very clearly divided into two parts, corresponding to the hexachord of B-natural and the natural hexachord. The dominant D marks the boundary between the lower fifth G—D and the upper fourth D—G. The fifth may be extended upwards so as to include the sixth note (E) and may descend to the sub-tonic (F); the upper fourth sometimes rises to A and may descend to C : in any case we remain within the practical limits of the two hexachords, and our accompaniment has to follow the general rules.

As there are frequently points of repose and cadences on the dominant, we observe that when such cadences are approached from the lower region of the scale, they must necessarily have the tonic chord. When they are approached from the upper fourth, the dominant tends to become a temporary protus tonic; but the influence of the main tonic is such that this tendency is never completely established once the principal tonic has asserted itself.

Our accompaniment must therefore submit to the following rules :

1) In the hexachord of B-natural, a cadence on D must *always* have the chord of G major.

2) In the upper hexachord, a half-cadence on D must have *the first inversion* of D minor if the melody continues in the same hexachord.

3) If in the sequel the melody returns to the lower hexachord, we *may* use the same chord as a chord of movement.

4) If on the one hand the cadence is sufficiently emphatic and on the other hand the excursion into the upper register has not been too long, then the chord of G major is *possible.*

5) The root position of D minor, giving the effect of a complete cadence, must always be used with restraint, because in fact the melody never gives this impression.

Sometimes we can go so far as to say that neither G major nor D minor is really suitable. So that in the upper hexachord, the chord of D minor remains a chord of movement and needs to be followed by some other chord.

Here we find the same problem as for cadences on G in the neighbourhood of B-flat (cf. Credo I); notice, by the way, that our principles are subject to different interpretations, and that sometimes the accompaniment is powerless to translate the precise impression given by the melodic line.

Gloria IX gives in brief the elements of a study which we shall develop in connexion with the other melodies. We examine it now step by step, transposing the original text a fourth lower.

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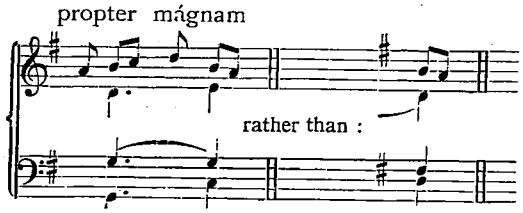
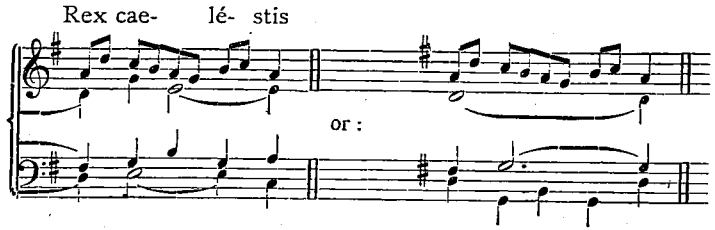
All the first part, as far as *Gratias agimus tibi* inclusive, is in the hexachord of B-natural. Hence the chord of G major for D in the melody (original pitch). Notice by the way that the two doubled punctums at *Laudamus te*, *Glorificamus te*, etc., in no sense mean that the principal ictus is on the first punctum (1). The cadence chord must come on the final punctum, i. e. on the dominant; the first punctum may be, or rather need not be, marked by a chordal change. At *propter magnam* we have the first modulation (a fleeting one) to the upper hexachord. We must therefore write, in full movement:

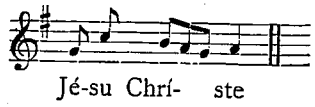


The modulation is more definite at *Rex coelestis*. Here the dominant may have either chord:



above all, with the suspension of the third in the tenor; this second solution facilitates the beginning of the next phrase.

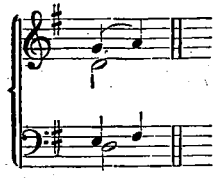
The cadence of *Jesu Christe*:



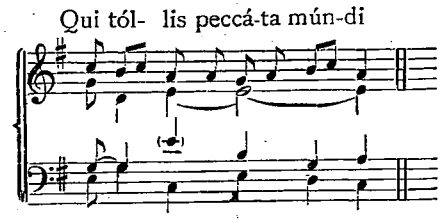
can hardly come on the root position of A minor: this chord would be too emphatic. The first inversion would be possible; but the double-bar causes an interruption at this point, by indicating a simple beat's silence between the alternating choirs, so that a first inversion is hardly suitable. Here, therefore, we have a case where the tonic chord seems far preferable, in spite of the modulation to the upper hexachord.

(1) To establish a compound cadence both punctums must come on the same degree of the scale. Here the two dots are purely interpretive.

After *Filius Patris*:

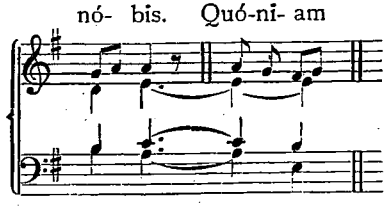


the beginning of *Qui tollis* requires a chord on the up-beat, and this occurs so frequently that we must call attention to it. If the first note of *Qui tollis* were to come on the previous chord, it would produce the utterly undesirable effect of a dominant seventh. The end of *mundi* must come on the first inversion of A minor:



But then the melody returns to the principal hexachord, so that for the cadence of *nobis* we must use D major.

The second *Qui tollis* begins in the upper hexachord, like the first; but at *suscipe deprecationem nostram* the melody descends to the main hexachord and then returns to the upper hexachord. Here again, at the end of *nostram*, the root position of A minor would be too emphatic and the first inversion insufficiently stable. We prefer the tonic chord. Perhaps the *miserere nobis* of the next phrase *(Qui sedes)*, which is *entirely* in the upper hexachord, would bear the root position of A minor at its cadence, in which case the cadence of *Sanctus* in the subsequent phrase must receive similar treatment. We should then write:



disregarding the F-sharp.

But in both cases the tonic chord would do equally well and might even be better.

The next two phrases *(Tu solus Dominus* and *Tu solus Altissimus)* are in the upper hexachord: for this reason the root position of A minor would no doubt be much more easily justified than in the previous instances, but it is not absolutely demanded.

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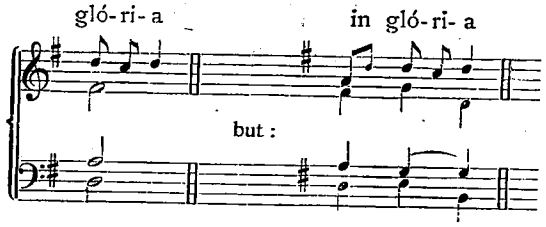
The cadence of *Patris* will naturally come on the tonic chord. But we must take particular care at *gloria*. Do not write :

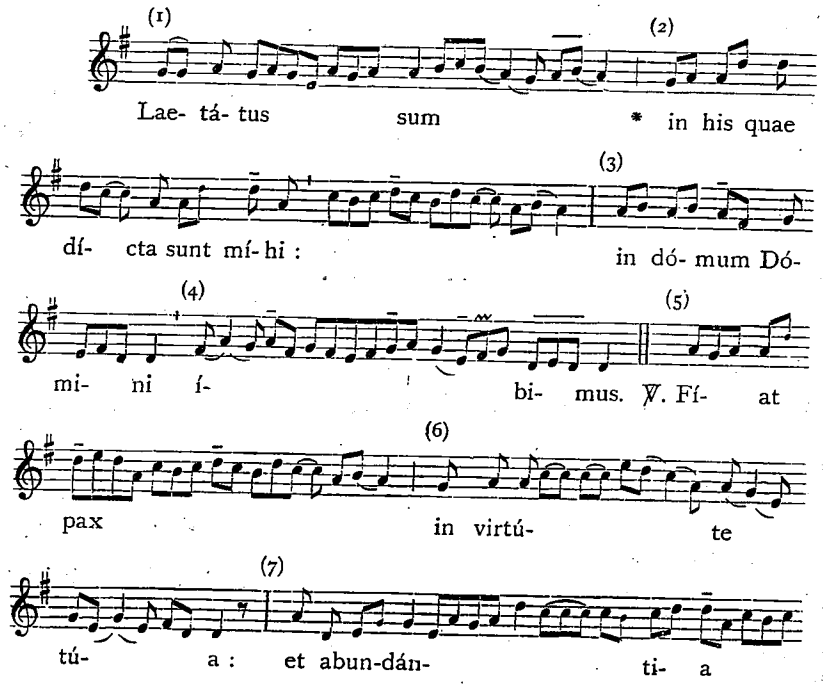


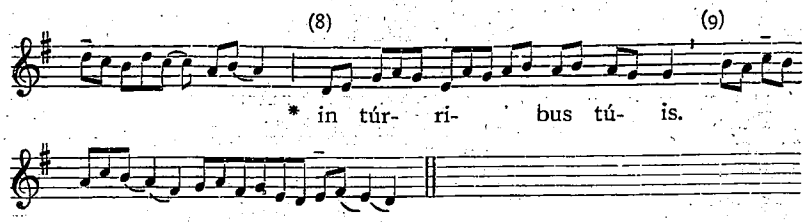
In accordance with our rules for chords of the sixth, the bass B must now move up to C.

We can see from our examination of Gloria IX that the question of cadences on the dominant of mode VII does not easily find a satisfactory harmonic solution.

III. Gradual : Laetatus sum *(Fourth Sunday of Lent).*

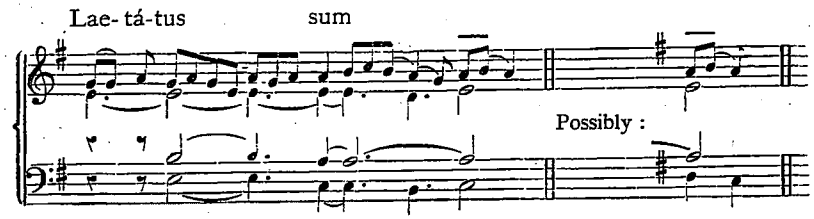
With the Gradual *Laetatus sum* we penetrate more closely into the secret of the composition of this mode :



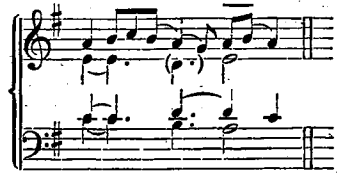


1) If we read the whole of the first phrase in the original key, but an octave lower, we cannot help being reminded of the plagal protus (mode II); in our transposition, A is the tonic of this protus; the real tetrardus only reveals itself later. Moreover there is no full cadence : the cadence of *mihi* is certainly not conclusive. In any case we must wait until F-sharp occurs in the melody before introducing it into our accompaniment. Hence there can be no question here of imposing the tetrardus tonic before the melody does so.

Two main chords are indicated in the intonation : E minor and A minor. The bass does not enter until the last syllable of *Laetatus* so as to mark the beginning of the group, which is very important. The whole of *sum* rests on A minor, but with a very clear impression of movement on the pressus; on the other hand the cadence is compound and begins on the first A of the torculus : if it were possible we should here use a suspension; but in order to do so we should have to introduce the root position of A minor. With the first inversion we have :



With the root position :



Notice that the root position is less heavy and less emphatic when the parts are close together and the bass rather high.

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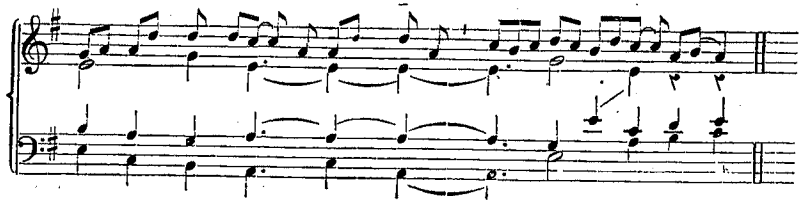
2) The sequel remains in the upper hexachord. The fourths (two rising and one falling) do not imply D major any more than the numerous fourths D—G we met in the protus and deuterus imply G major. We must therefore treat either D or A as an unessential note.

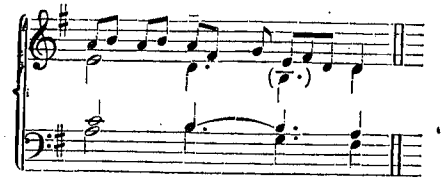
Thus the first D can be taken as an anticipation of the second. But the episematic D at *mihi* cannot be taken as harmony-note (for on the chord of G, the only possibility, the subsequent A and C would both be unessential notes); we must therefore treat it as an appoggiatura of the C which follows the quarter-bar (the A being part of the chord), on the chord of A minor. The difficulty is that we remain on A minor; but the ictus on the first syllable of *mihi* is not thetic, and so the solution is possible from the rhythmic point of view. The sequel is not difficult and we already know the cadence :

in his quae dí- cta sunt mí- hi :

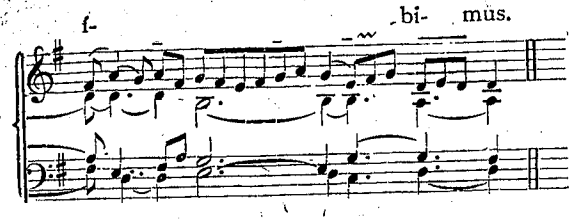


3) The word *domum* is about to introduce F-sharp (this is rather like the Communion *Passer* in which we pass from the protus on D to tetrardus on G, a fifth lower, at *Deus meus :* a further reason for not imposing the tetrardus *a priori* from the beginning of the Gradual). But this F-sharp must appear first in the melody; on the other hand this does not mean that we have as far as possible to allow A minor to continue right up to that point. We therefore treat the melodic A as an appoggiatura of G, and the chord of D major makes its appearance on the end of *Domini* : notice what precautions we have to take :

in dó- mum Dómi- ni

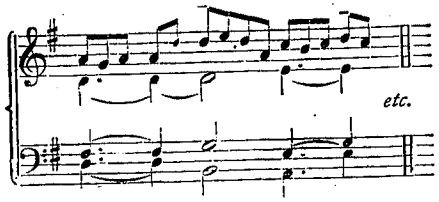


4) There is nothing more to do now but lead up to the regular cadence by conjunct degrees in the bass. We begin by maintaining the chord of D major (with a movement in the tenor enabling us to mark both the pressus and the horizontal episema); the melody then indicates E minor; the bass moves naturally down to C by means of a passing-note (D) which marks the beginning of the quilisma-formula. The cadence is compound (torculus-and-punctum) :



5) The beginning of the verse is influenced by the preceding cadence. But on *pax* it would be as well to quit D major, for two reasons : first, in order to mark the word with a new chord; second, in order to prepare, by introducing a neutral chord, for the modulation which the melody is about to make. The first inversion of G major fulfils this function, and so the A of the group must be taken as an anticipation of the next chord (the only chord which would enable us to take it as a harmony-note would be D major) :

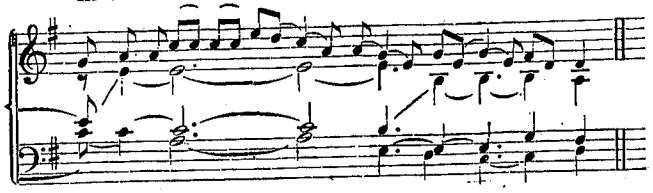
℣. Fí- at pax



For the sequel we refer to the accompaniment already proposed for the same melodic formula.

6) At *in virtūte* it is quite pointless to look for any chord other than A minor. It cannot be helped if the distropha and the pressus are not marked. E minor suits the end of the word, and in the bass we have D, as a passing-note, leading to C again for the cadence-formula :

in virtú- te tú- a :



The melodic F-sharp implies E, so we exchange notes between melody and tenor (as can be seen) instead of maintaining E in the tenor.

7) The next phrase begins under the influence of the previous cadence and then modulates once more to the upper hexachord. The accompaniment must follow suit. But the rising fourth (E—A) already invites

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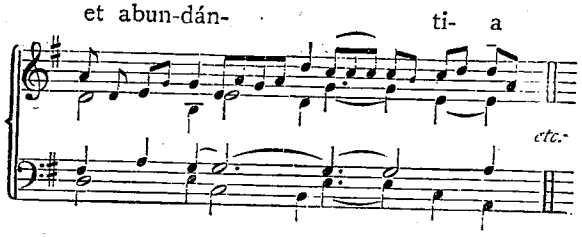
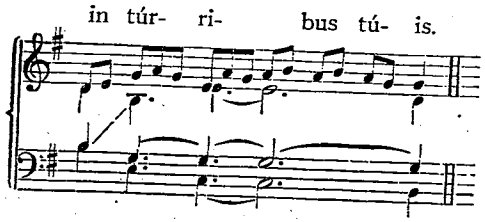
the chord of A minor. The high D must necessarily have the chord of G major. The tristropha on C cannot have A minor (which would last to the end of the word and be lacking in rhythm), but must have the first inversion of C major; and this chord leads by way of its root position to A minor; in this way the bass B (on which we have a chord of the sixth) proceeds indirectly to A. The rest of the vocalise we already know :



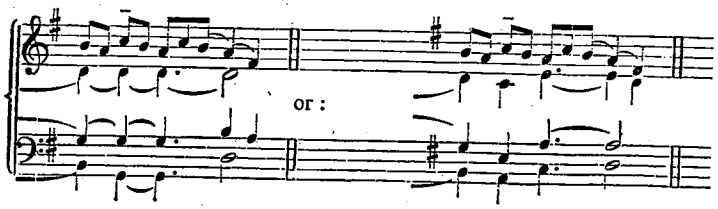
Notice that E minor is not written on the second syllable of the word but on the third, which is more important. As the two unessential notes imply F-sharp, we change the tenor to A.

8) Once again we must wait until F-sharp occurs before using it in our accompaniment. We are going to end on the first inversion of G for the end of *tuis*, and this is easy if we introduce the first inversion of A minor as the melodic fourth suggests :



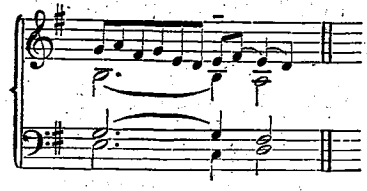
Notice the use of the added sixth, with a tenor pedal.

9) Looking ahead to the pressus, we see that it obviously demands a single bass note for itself and the subsequent note. But the chord of D major here would be premature. We met the same difficulty in the Alleluia *Ascendit*. As in that case we may have either :

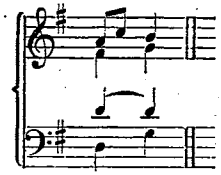


using a chord without its third but with a ninth to give it character.

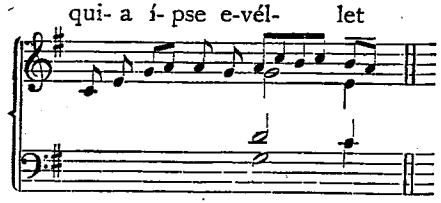
The cadence is easy :



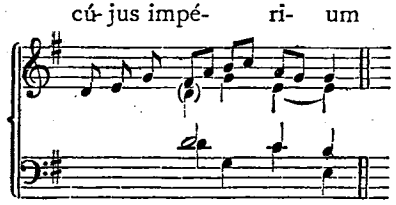
It would be far from true to say that all the melodies in this mode, even the longer ones, give a similar importance to the upper hexachord. Nevertheless the procedure occurs extremely frequently. In Introits, which are far less ornate than Graduals and Allelúias, the modulation is very fleeting, and for this very reason may easily take the organist by surprise when he has not prepared his accompaniment. Be very careful not to use the tonic chord while the characteristic note occurs in the melody :



In cases of this kind we must either treat the high note as an unessential note on a neutral chord :



(Introit *Oculi*, Third Sunday of Lent.)



(Introit *Puer*, Christmas.)

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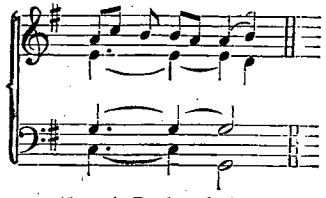
or else establish a chord containing this note before it occurs;



(Introit Psalmody.)

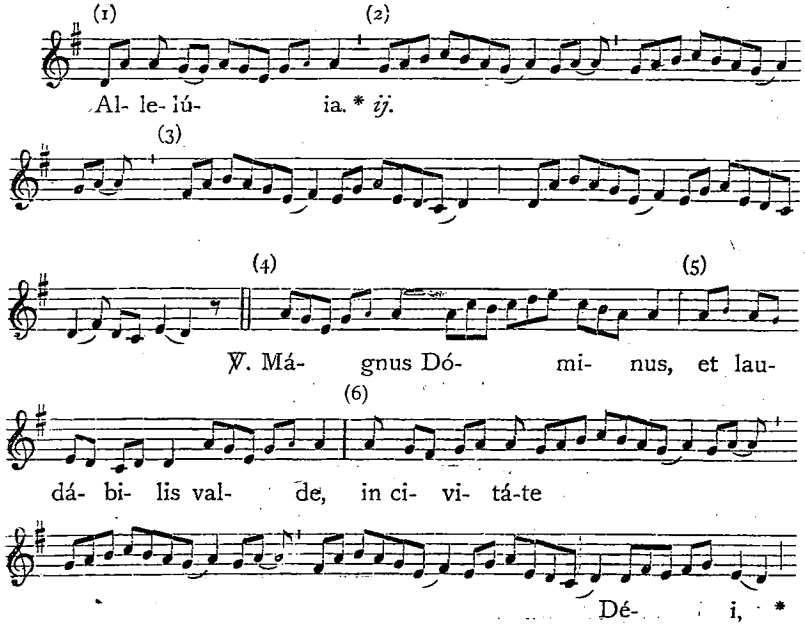
When the note in question has the ictus, there is no difficulty.

With regard to the Introit *Deus in adjutorium* (Twelfth Sunday after Pentecost) in the form in which we have it in the Vatican Edition, it is easy to recognise in it a tetrardus on C with B-flat (original pitch) to begin with, turning into a tetrardus on G with B-natural, a fourth lower. This sort of modulation is already familiar to us. All we have to do is to take the usual precautions against false relations and anything that savours of them.

IV. Alleluia: Magnus Dominus

(Eighth Sunday after Pentecost).

We come now to the Alleluia *Magnus Dominus*, one of the masterpieces of the repertory:



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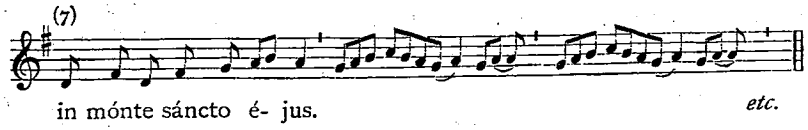
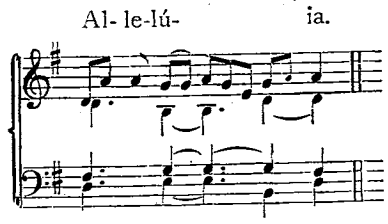
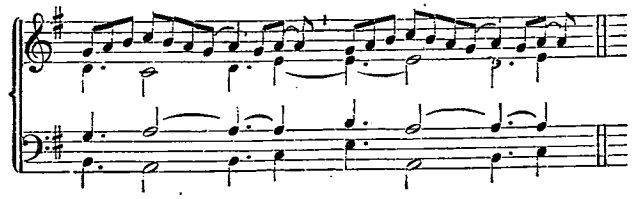


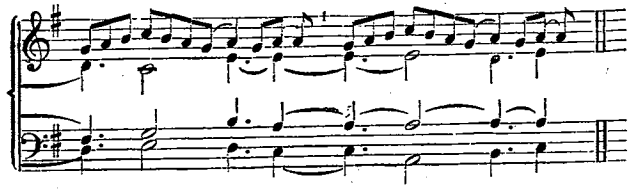
1) The intonation gives us the characteristic fifth of the mode. In the absence of the third of the tonic, and indeed of any semi-tone, we do not deem it necessary to examine the sequel in order to interpret the intonation. The emphatic fifth D—A compels us to write D major, and we return to this chord for the end of the intonation. Obviously F-sharp does not occur in the melody; but in spite of the analogy between the end of this intonation and the beginning of the verse (which we interpret otherwise), the chord of A minor, by imposing C-natural (which has not yet occurred), would decide the question unfortunately, as regards both the modal character of the entire melody and the analysis of this particular passage:



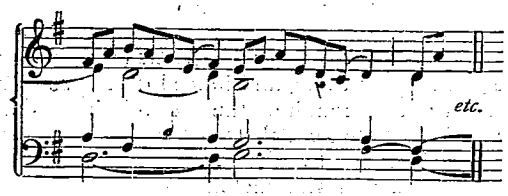
2) The first phrase of the jubilus modulates and clearly indicates A minor as the main chord; this chord can retain its rhythmic importance by means of secondary movements; but we must take care not to overburden the melody:



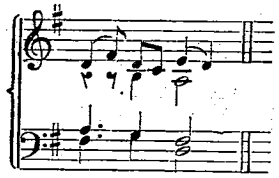
It might be better if we kept the previous chord for the beginning:



3) F-sharp now appears in the melody : a 9—8 suspension in the alto provides a good way of emphasizing the unity of the long vocalise. D major dominates the entire phrase, with transitional chords to mark the rhythm :

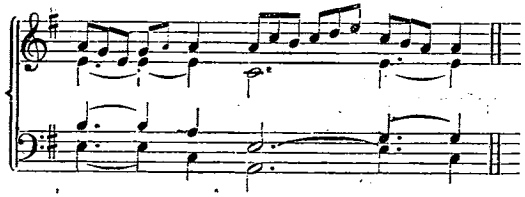


There is no point in changing anything in what follows. The cadence is easy to establish, the bass F-sharp leading quite naturally to G for the plagal-cadence formula :



4) We come now to the verse. We might, of course, begin on D major. But if we read the original text an octave lower, it reveals such a very characteristic mode-II formula that it is impossible to avoid using A minor (in our transposition) as a sort of tonic chord for this passage. We can therefore begin on E minor (a neutral chord); at *Dominus* the melody indicates almost exclusively A minor, so that it is difficult to find an intermediate chord which will give A minor its rhythmic importance at the end of the phrase. E minor is the only possibility, though the result is somewhat monotonous :

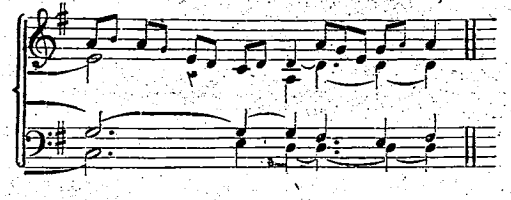
℣. Má- gnus Dó- mi- nus,



5) At *laudabilis* the melody returns to the lower part of the scale, but without touching F-sharp; nevertheless the modal fifth occurs between *laudabilis* and *valde*. Is the cadence of *valde* to come on A minor or D major? Of course the melodic formula of *valde* is identical with that of *magnus*, and yet from the fact that the melody has descended to the low F (of the original, C in our transposition) we get the impression that the principal tonic has resumed its rights. And so, without

bothering about the contradiction with the beginning of the verse, but in conformity with the intonation of the Alleluia, we write :

et lau- dá- bi- lis val- de,

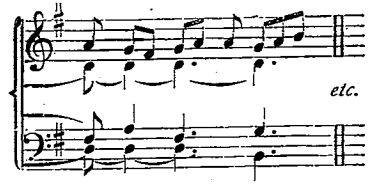


(Notice the tenor suspension).

In spite of everything a case can be made out for A minor (not its root position, however, for that would be too extreme); but if we use this chord, we must have G major instead of D major for the end of *laudabilis*.

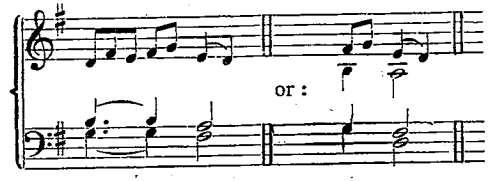
6) For the sequel there is no need to alter what we have already written :

in ci- vi- tá-te



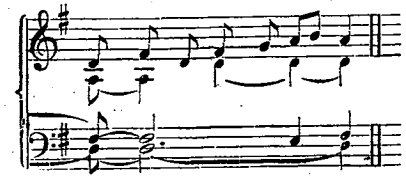
But at *Dei* there must be a cadence (or a half-cadence) on D major, thus :

Dé- i,



7) We begin again on D major, the only suitable chord, with a tenor movement required by the rhythm, and the sequel remains unaltered :

in mónte sáncto é- jus.



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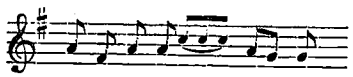
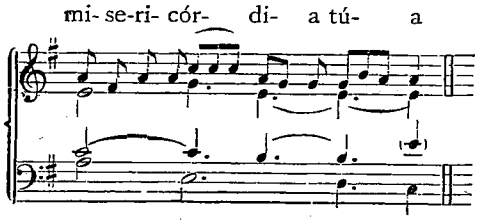
All VII-mode melodies belong to one or other of the types we have just examined. But notice that some melodies descend to the fourth below the tonic (e. g. the Antiphon *Cum appropinquaret* and the Gradual *Qui sedes*), a matter which will be elucidated in connexion with the plagal mode.

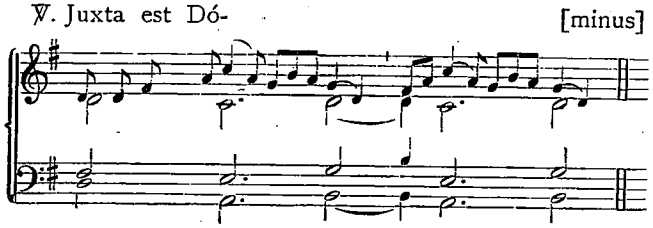
There are also cases where B-natural and F (original pitch) are brought close together, creating an almost insuperable difficulty for the accompanist. The Antiphon *Exaudi* (Ash Wednesday) at once springs to mind. All the first part belongs to the upper hexachord, but soon we are confronted with this :



In the context it is quite clear that the F-sharp is like an intruder in his neighbour's house. And so, without any fuss, we let it come on the chord of A minor (1), and even return to this chord for the cadence of *tua :*



Then there is the beginning of the verse of the Gradual *Clamaverunt ;* but in this case the accompanist does not experience the same difficulty ; he merely has to bring the two chords together rather brutally :

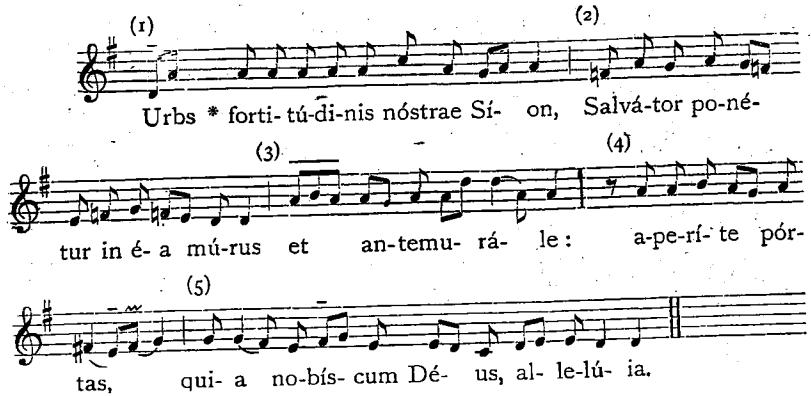


(1) In analysing the F-sharp from the harmonic point of view we must understand an intervening G :

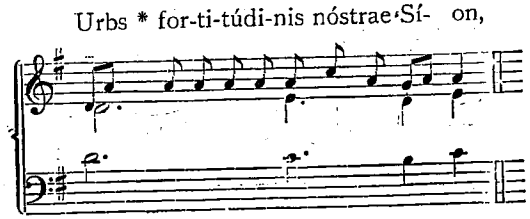
Instead of A in the bass, we could have B, with D in the tenor. In that case we could have A in the bass for the tristropha.

V. Antiphon : Urbs fortitudinis *(Second Sunday of Advent).*

The Antiphon *Urbs fortitudinis* possesses the unusual feature of beginning in the minor and ending in the major on the same tonic ; the phenomenon is not unique, but the Antiphon is short and very embarrassing to the accompanist :



1) The intonation introduces the characteristic fifth of the mode, then the melody rises a third above the dominant : familiar features of mode VII ; hence we should have no doubt as to the nature of the third (F-sharp), although it has not yet occurred, were this precise third not minor at *Salvator.* All the same it is impossible to begin with D minor, because the intonation-formula of itself suggests D major, in conformity with the character of the mode. On the other hand, neither the tonic nor the dominant of *Urbs* can be treated as an unessential note. All that we can do is to write a chord without its third ; no other solution is possible ; and this harmonic vagueness exactly corresponds to that of the melody. The chord of A minor is then indicated by the high C, and we return to the same chord after a chord of transition :



2) In the sequel we must be careful not to use F-natural as a harmony-note until we come to the cadence of *murus.* Before that we

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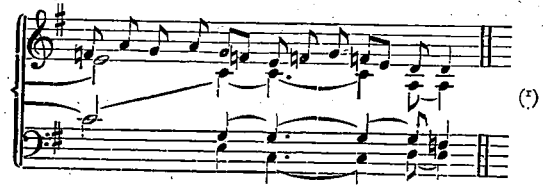
must prepare the transition by means of the neutral harmony A minor — C major. With regard to the actual cadence, remember what was said in Part I about cadences of this type, which in practice we treat as compound cadences with the accent doubled (but without altering the value of the written notes of the rhythmic editions of Solesmes) :

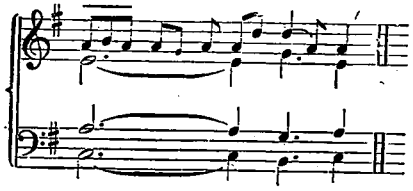
Sal-vá-tor poné- tur in é- a mú- rus



(1)

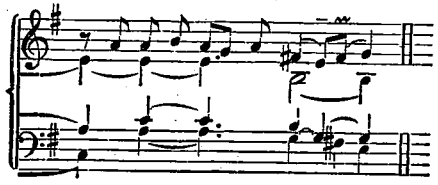
3) We must now adroitly prepare for the coming F-sharp; with that object we of course avoid F-natural in our accompaniment; but after leaving D minor, we need G major as a preparation for F-sharp; and therefore before we come to the chord of G we introduce the chord of A minor which will dominate this little phrase; then on the high D we put the first inversion of G (the only possibility, by the way), which introduces the required B-natural :

et an- temu- rá- le :



4) The melodic F-sharp is taken as an appoggiatura of E, a frequent procedure when a quilisma has two notes of preparation. The end of *portas* therefore has the chord of E minor (with an optional passing-note in the bass) :

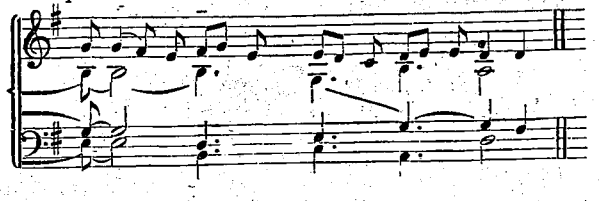
a-pe- ri-te por-tas,



(1) If at the start of this phrase, the F-natural seems too harsh against the E, the alto can begin on D and return to E on the last syllable of *Salvator*.

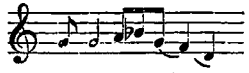
5) The end is comparatively simple, for it does not modulate and it finishes with a normal cadence :

qui- a no-bís- cum Dé- us, al- le-lú- ia.



The chord of the ninth on the bass A enables us to avoid consecutive octaves between the outside parts, which would be very obvious if we kept C in the bass.

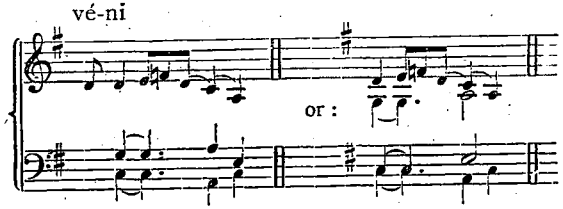
In the Gradual *Qui sedes* there is a very awkward B-flat which cannot possibly come on the chord of C, still less on G major :



vé-ni

A chordal change on the A would be heavy. It is better to treat the G as an appoggiatura, thus (transposing) :

vé-ni



We shall find B-flat again in the plagal mode.

2. — The Plagal Tetrardus: Mode VIII.

As the authentic tetrardus rises above its dominant, so the plagal mode descends below its tonic. But the low D does not play the same rôle in mode VIII as the high D in mode VII; its character is quite different. The upper D leans on its tonic as a building stands on its foundations, it suggests it even after a modulation in which the D has itself acquired the status of a temporary tonic; but the low D, on the other hand, seems to separate itself from its tonic; of course it does not cause us to forget it, but it does not suggest it. And so for the lower region of mode VIII we must adhere strictly to the laws of the natural hexachord. As regards the hexachord of B-natural, our accompaniment must on principle be hexachordal; but F is possible in chords of

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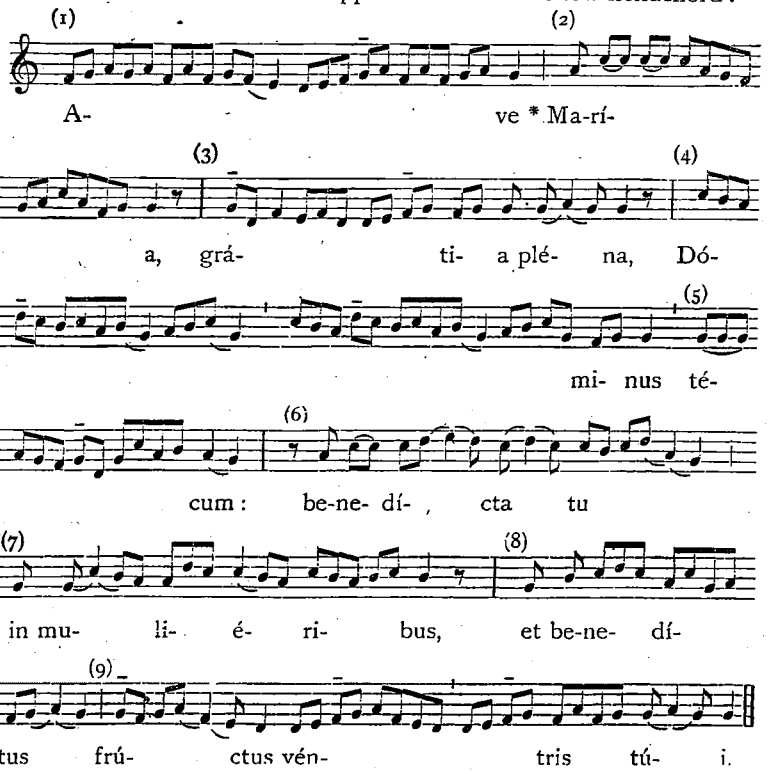
movement (D minor or F major) once it has occurred in the melody, especially in accompanying a cadence formula.

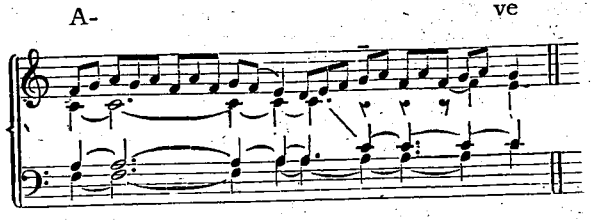
There is no point in giving a melody in which F does not occur and where in consequence the plagal cadence is inevitable (e. g. the Alleluia *Benedictus es).* We have already studied this type in dealing with the authentic mode in particular and with the hexachord of B-natural in general. We are going to examine melodies that are more characteristic. Notice that everything we are about to say concerning the interplay of the natural hexachord and the hexachord of B-natural, the rôle of B-flat, etc., has already been dealt with: in this chapter we are only considering the particular application in mode VIII.

I. Offertory: Ave Maria *(Fourth Sunday of Advent).*

Like a good many melodies, the Offertory *Ave Maria* begins in the low hexachord and does not enter the hexachord of B-natural for a considerable time. Even the final cadence is approached from the low hexachord:

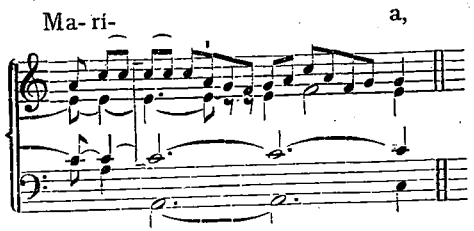


1) The intonation rests mainly on F major (or D minor); A minor (or C major) is needed on the doubled E; and C major for the end of the phrase. Three chords are enough: F for the beginning; A minor for the melodic E, changing into the first inversion of F; then C major:

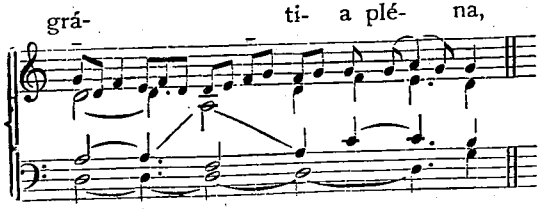


In could not be simpler.

2) Although *Maria* takes leave of the lower register of the scale, it nevertheless avoids B-natural. And so the cadence, which is not one of the usual formulas, is inconclusive, despite the full bar-line. We therefore prefer not to use G major yet as a cadence-chord, and choose C major. For the first part of the phrase, A can serve as the bass both of the fundamental chord of A minor and of the first inversion of F major. Once again therefore we have the minimum of chordal changes;



3) We cannot treat both notes of the melodic fourth at *gratia* as harmony-notes. Following the methods we have already employed, we treat the G as an appoggiatura of F on the chord of D minor, with a harmony-note intervening before the resolution. Moreover the chord of D minor suits all that follows until we come to the cadence. But this time, in spite of the absence of B-natural, we have a regular cadence-formula which gives a very definite impression of repose. Of course, G major goes too far by imposing a harmonic atmosphere which the melody certainly suggests but suggests with discretion. On the other hand C major would leave the sense suspended, and that does not appear to be the "feel" of the melody. We opt for G major. By keeping D in the bass for a chord of the ninth on the pressus, we treat the three successive G's as unessential notes:



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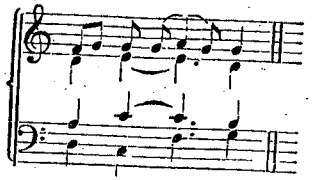
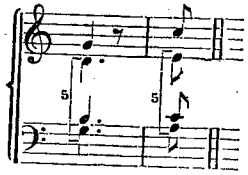
On this bass pedal the three G's of the melody go quite well as unessential notes. But it is also possible to treat the first as an anticipation of the second, and change the bass on the end of *gratia* :

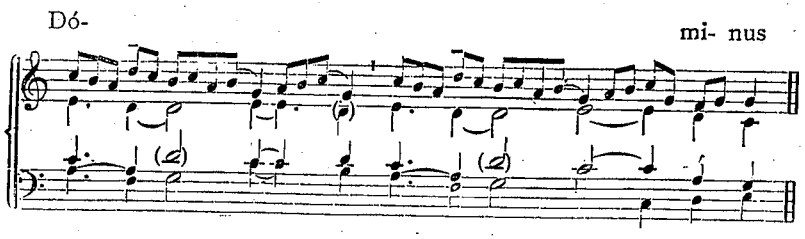


4) In any case, since A minor is indicated for the beginning of *Dominus*, the fifths between alto and bass are inevitable if the chord of A minor is to be complete :

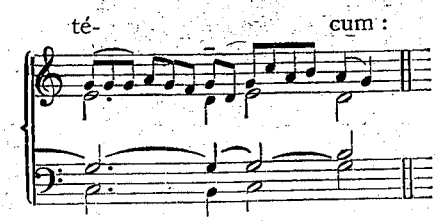


After a cadence there is not the same bond between the chords as there is in the middle of a phrase, and in our opinion these fifths are tolerable. However, if we insist on avoiding them, all we have to do is to suppress the alto (the fifth of the chord) when we begin the chord of A minor.

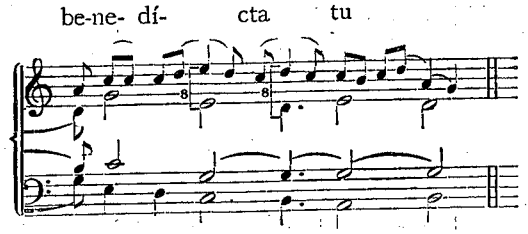
The high episematic D (preceded by A) does not seem to have acquired as yet the "feeling" of G major; we write the first inversion of D minor for it, and G major comes, of course, on the B-natural, followed by C major on the doubled G; we can stay on C major until the second doubled G, where we put the first inversion of G major; for the next phrase (which is a repetition) we keep the same harmony, finishing with a cadence on C major, in accordance with the indications of the melodic intervals and the inconclusive nature of the half-cadence itself. To do that, we introduce a transitional chord on the second syllable of the word :



5) We must not think of putting the chord of G major on the first G of *tecum*, because of the F in the melody; we therefore maintain C major (in root position); G major is possible for the falling fourth in the melody because the low D is sandwiched between two G's. We end with the plagal cadence and so avoid a pointless change in the bass :

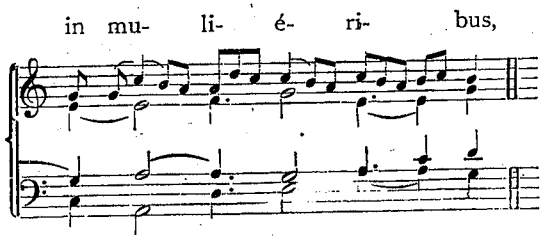


6) The sequel calls for A minor to begin with, then C major on account of the melodic insistence on C and E. But if we begin at once with the first inversion of C, this makes it easier to mark the rhythm by conjunct degrees in the bass :



Let us be lenient over the octaves between melody and alto (1).

7) *In mulieribus* indicates C major or A minor, then D minor (because of the rising melodic fourth); after that, A minor leads to G major for the cadence. This cadence could obviously have E minor. But E minor is less in the general feeling of the mode and it is also less well suited to the sequel which rises to D :



(1) Instead of D in the alto, G is possible.

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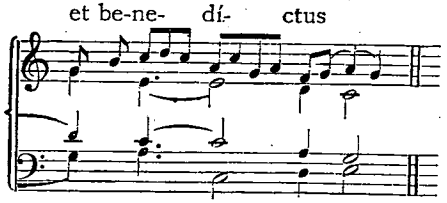
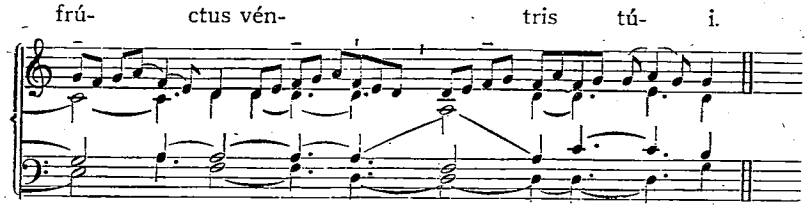
8) For *et benèdictus*, after G major, the indication is clearly A minor or C major, but the pressus must come on the same chord; and so we need a harmonic movement before the pressus, on the end of the word :



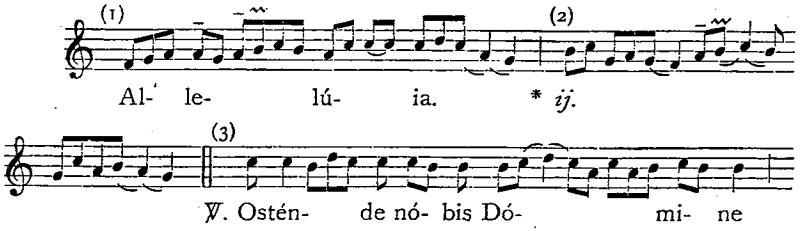
Notice 1) that the downward bass leap of a sixth is "corrected" by a subsequent rise; 2) that the last G in the tenor, doubling the resolution of the appoggiatura, is necessary so as to avoid the effect of a six-four chord.

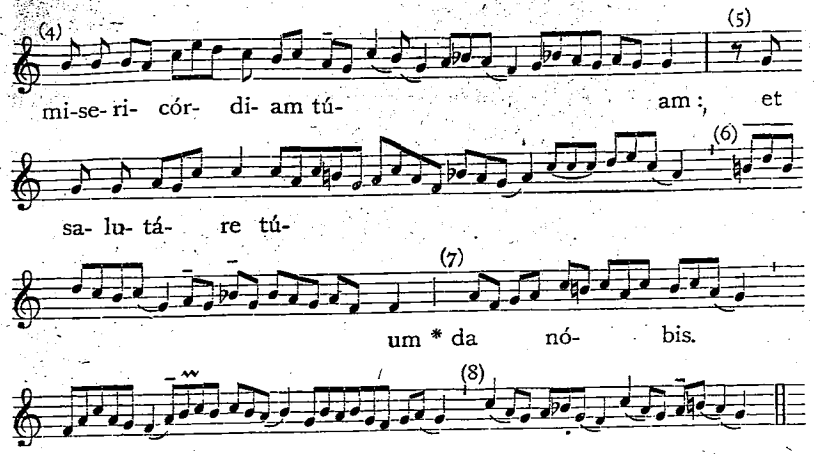
9) We begin *fructus* on the preceding chord; but we reserve D minor for the end of the word instead of putting it on the pressus. The rest all demands D minor, which leads to the final chord of G major, but which at the appropriate moment receives first its seventh and then its ninth :



Although the cadence is approached from below (i. e. from the natural hexachord), by the very fact that it is a cadence it imposes a modulation to the hexachord of B-natural.

II. Alleluia : Ostende *(First Sunday of Advent).*

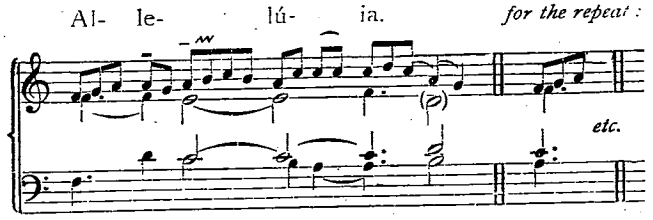




The Alleluia *Ostende* will show how we can avoid B-flat and how carefully we must choose our chords when B-natural and F come close together in the melody.

If in our accompaniment we systematically disregard the B-flat, the melody only modulates to the natural hexachord at its cadences on F. On the other hand the chord of C must be rigidly avoided while B-flat occurs in the melody.

1) In the intonation, beginning with F major and D minor, we have to proceed to A minor, which leads to the first inversion of G. Since the principal ictus of the cadence falls on the pressus, we must have a simple movement in the alto to mark the end of the word :



2) The jubilus naturally begins on the previous chord (1); but the descent to F necessitates an intermediate chord which enables us to avoid having the two extreme chords side by side. As usual this melodic F is accompanied by D minor (sometimes the first inversion of F) which we can maintain for the quilisma-formula, as a chord of movement leading to G major for the pressus. In this connexion, notice that D minor (or F major) leads quite well to G major (arsis followed

(1) It could begin, however, on the first inversion of C (E in the bass).

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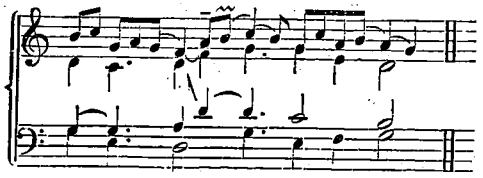
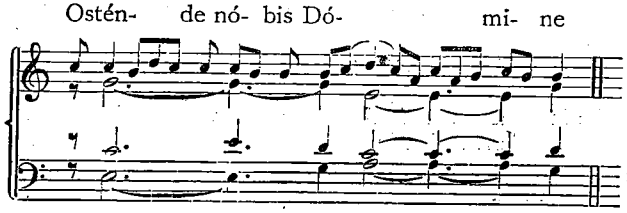
by thesis) despite the opposition between the chords; but the converse, which is illogical, does not sound well and is not in the spirit of the melody, here or elsewhere, except when D minor (or the first inversion of F) marks a simple transition. Moreover the pressus has the character of an appoggiatura by reason of its close connexion with the melodic B, which is much less closely united with what follows. After that, we have C major because of the melodic fourth, and then the usual cadence by conjunct degrees, thus :



(The fundamental chord of F *always has its seventh* in such cadences).

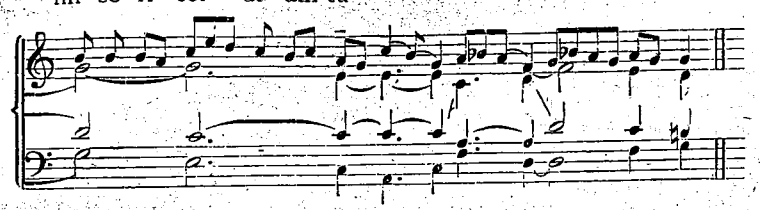
3) The beginning of the verse is almost entirely confined to the two notes C and B : hence the chords of C major (or A minor) and G major (or E minor), with as few changes as possible, because the melody is merely a kind of ornate recitation :



Notice why the tenor moves from C to E on the first syllable of *nobis;* for it is right not to treat the two melodic B's as unessential notes, especially as one of them coincides with the end of a word and even of a group of two words *(Ostende nobis)* with a measure of independence. Thus the chord of G turns into the first inversion of E minor on the same bass.

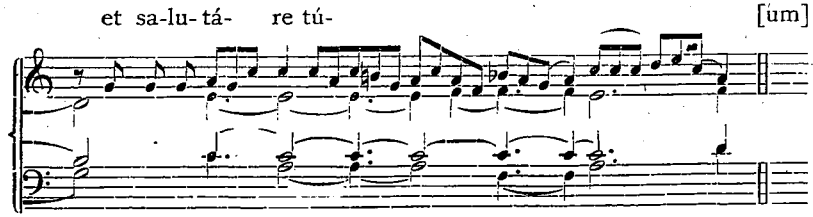
4) We automatically place the two chords of G major and C major on *misericordiam.* But at *tuam* we have many precautions to take. First, we must avoid F on account of the B-naturals in the melody; furthermore we must avoid B-natural on account of the approaching B-flats. Hence only two chords are available : C major and A minor. Then from just before the first B-flat down to the cadence, only F major and D minor are possible. Granting that we move from F major to D minor to mark the doubled punctum on F, what will our cadence be? G minor shrieks its falsity. C major leaves the sense suspended, although the melody has finished. Only G major remains, and that creates an obvious false relation. That paleographically these flats are incorrect, there is no doubt; but we sing them.

If however they are treated as unessential notes and E is introduced into the accompaniment as a connecting link, it is certain that G major does not jar and that it preserves the general unity of the melody :



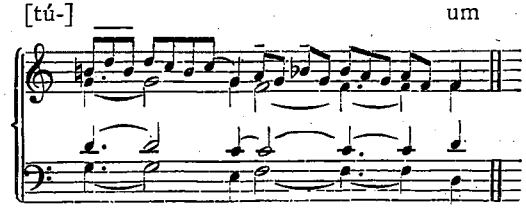
If we prefer, we can keep D in the bass so as to have a chord of the ninth moving to G major.

5) We begin again on G major; we mark the end of *salutare* with the chord of A minor, preceded by C in the bass. A simple F in the alto facilitates the descent of the melody to this note, but we postpone it until the last moment; the B-flat therefore occurs as an unessential note on the chord of F. If the *mora vocis* is not marked, that cannot be helped : after all it is nothing more than a transition to the tristropha. We return to A minor because of the sequel. The chord of D minor, although "in movement", is nevertheless possible before a quarter-bar, and it links up easily with the chord of G major which the sequel demands :



6) In the next phrase we find the same problem and apply the same solution.

We naturally begin with G major. But as soon as the doubled G comes in the melody we prepare our transition with the chord of C. On the B-flat we write the chord of F major (the B-flat, taken as an appoggiatura is nevertheless resolved) and we reserve the chord of D minor for the cadence :



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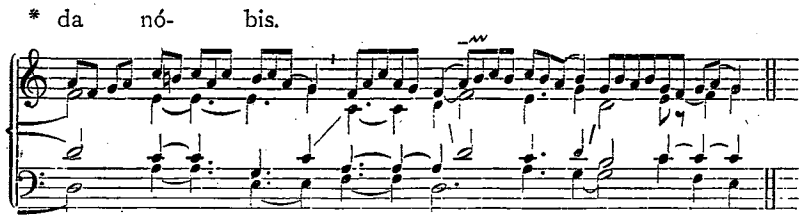
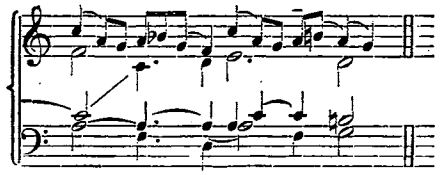
7) We are now conveniently placed for the new beginning at the asterisk; we return to A minor for the first syllable of *nobis* because of the B-natural. The end of the word receives E minor which is easily transformed into the first inversion of C; for if we were to put the root position of C major on the beginning of this syllable, the octaves between the outside parts would be too obvious.

After that, it is difficult to avoid F major, which is clearly indicated by the melody, but we prepare for the quilisma with the chord of D minor; the melodic insistence on B-natural and C leads us to write A minor. The long B in the melody must necessarily have G major (or E minor); but we must take account of the melodic F and of the B-flat of the next phrase. And therefore the G before the quarter-bar has C major, which we also use previously when the F occurs; hence we require a transitional chord in order to be able to return to C major (this time its first inversion):



8) As we approach B-flat we again make use of F major and D minor (the latter marks the long F). Then, in preparation for the B-natural (which must be treated as an unessential note), we introduce A minor, and the cadence follows without difficulty:



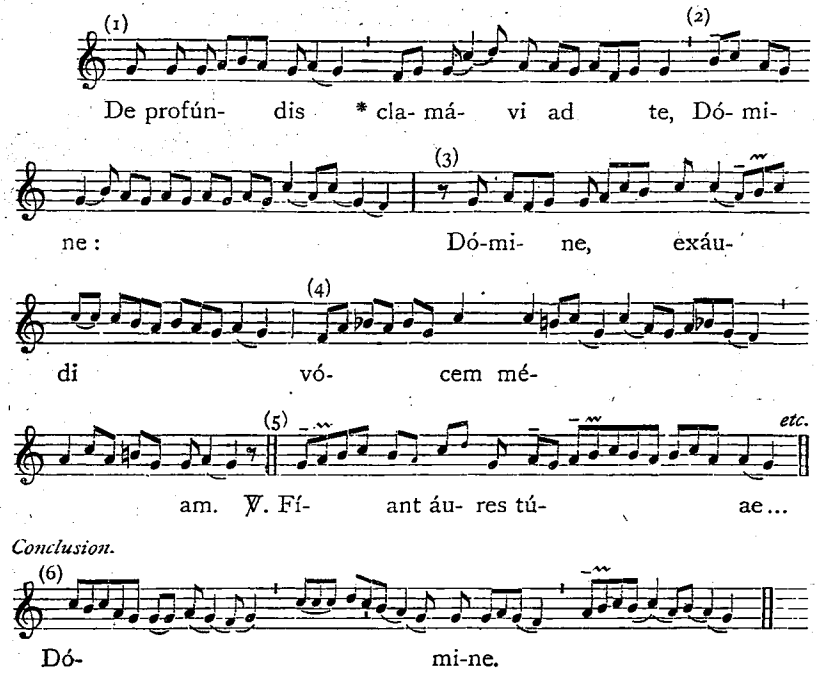
Thanks to all these precautions, we not only respect the unity of the melody but also assist the singers; for they are sometimes puzzled by the alternations of B-natural and B-flat, and by B-naturals and F's in successive chords, and so lose all idea of the tonality.

This very typical case is not the only one of its kind. We use the same methods with regard to the B-flats in the Introits *Lux fulgebit* and *Dum medium*, for instance, and in the Offertory *Immittet Angelus*, etc.

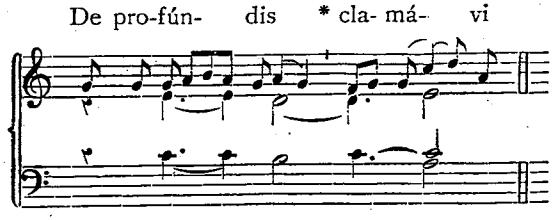
We shall find other examples in studying the Tract formulas.

III. The Tracts.

As an example we take the Tract *De profundis* (Septuagesima):



1) With regard to the intonation-formula, notice once more that the ictus is on the isolated punctum in front of the torculus. It is here the normal thing to begin with C major and to reserve G major (first inversion) for the lesser cadence, for with the reverse formula (G major —C major) the accompaniment would anticipate the B-natural of the melody. Then, as the F of *clamavi* cannot come on the chord of G and as the G is repeated, we have to return to the chord of C; but E in the alto would sound rather harsh against the F in the melody. We therefore keep D in the alto, as a suspension of E, thus:



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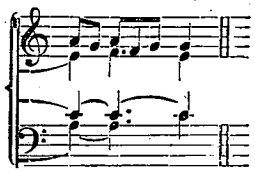
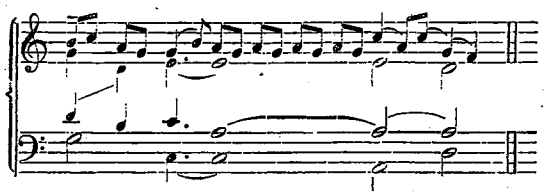
We then go to C major on the melodic G :

ad te,



2) At the word *Domine* there are two points to consider : the end of the word, and the final pressus. The chords of C major and A minor, leading to D minor for the cadence, suit perfectly :

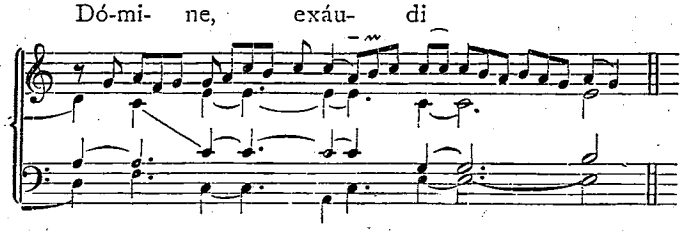
Dó- mi- ne :



As always, we reduce our chordal changes to the minimum.

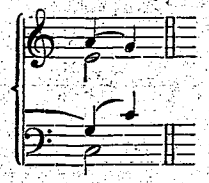
3) In the next phrase notice once more that the punctum in front of the torculus (at the end of *Domine)* has the ictus (1). In order to avoid the fifths that would result from the sequence D minor (A in the melody)—C major (G in the melody), we change the chord of D minor to F major. A minor is the appropriate chord for *exaudi ;* but the end of the word requires a chordal change ; this can only be the first inversion of C major, which turns into E minor on the final clivis :

Dó-mi- ne, exáu- di



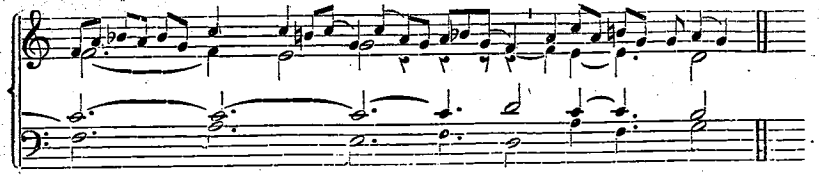
But although this is logical enough, it links up very badly with what follows, where we at once have F and then B-flat : we must therefore stick to C major and, by maintaining G in the tenor, strive to give the melodic A its appoggiatura-character :

(1) Despite the indications given in the Paroissien 800 c.



4) In this way we link up with F major for *vocem*, followed by A minor because of the B-natural of *meam.* The doubled F before the quarter-bar has D minor ; and in the cadence-formula the B-natural is treated as an unessential note :

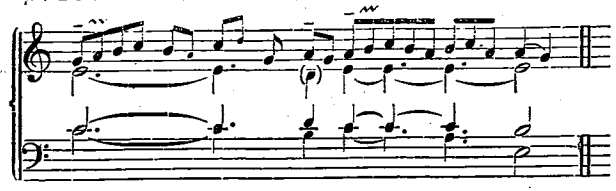
vó- cem mé- am.



Notice that in the cadence the B-natural and the G on the chord of F imply A.

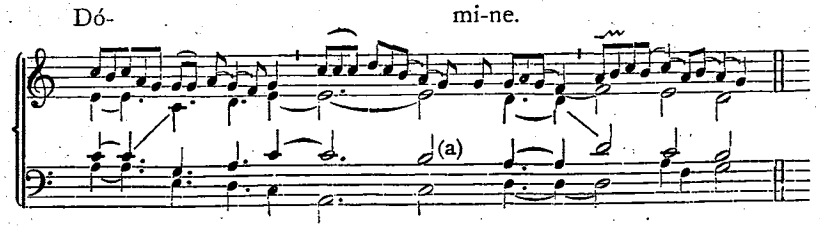
5) The beginning of the verse is harmonized without difficulty :

℣. Fí- ant áu- res tú- ae



6) Similarly, the concluding formula, which is common in Tracts of this mode, presents no real difficulty ; nevertheless, before the first quarter-bar the chord of G major (even its first inversion) would certainly be excessive ; we mark the end of the word with D minor (on the end of the word, not on the doubled F) : G then becomes an appoggiatura of F, and A an auxiliary-note of the appoggiatura :

Dó- mi-ne.



(a) This tenor B is a passing-note ; as an alternative, C might be held.

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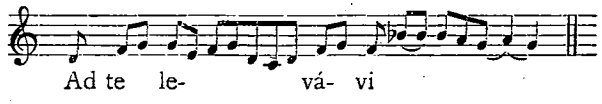
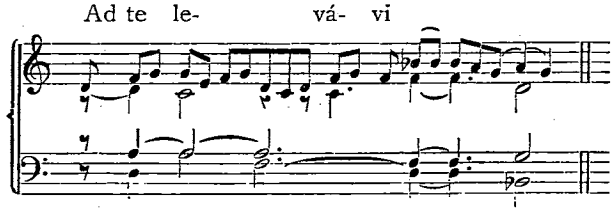
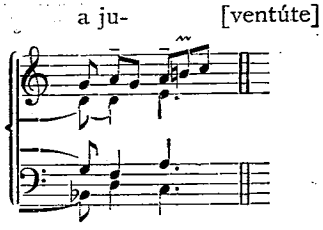
We have just seen how to avoid B-flat. But some B-flats are essential and must figure in the harmony. Thus in the intonation of the Tract *Ad te levavi* (Third Sunday of Lent), which is really a II-mode intonation :



we must even treat the E as an unessential note, so definite is the tonality of G minor :

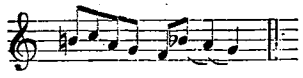


Then by way of F major and A minor we prepare for the arrival of the melodic B-natural. The same thing happens in the Tract *Saepe expugnaverunt me* (Passion Sunday). But here B-natural comes much sooner in the melody. We lead up to it in the following way :

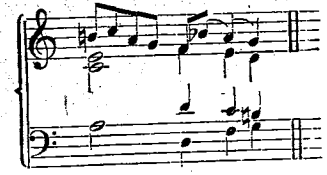


The Tract *Qui seminant* (First Mass of Many Martyrs) pushes the confusion with the plagal protus to still greater lengths, and exactly reproduces the beginning of the Tract *Tu es vas* (Conversion of St Paul). If we use the chords F major—D minor and C major—A minor, the melodic B-natural will then seem quite natural, as in the other cases.

The Alleluia *Spiritus ejus* (Ember Saturday after Whitsun) is a very difficult case : it is clearly marked as mode VIII, but its cadence is as follows :

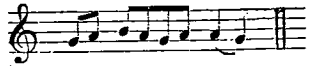


Neither G minor nor C major will do, and G major involves an immediate false relation. Perhaps B-flat is incorrect and we should sing the tritone. In any case B-flat is incompatible with the tetrardus, which requires a major third above its tonic. With an intermediate chord (despite the consequent heaviness) the false relation would be tolerable :

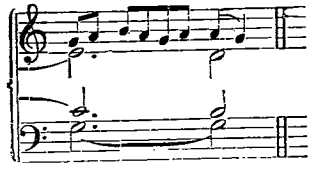


The alto E is indispensable here. But on any hypothesis, we are no longer translating, we are interpreting.

Remember what was said in connexion with the greater compound cadence :

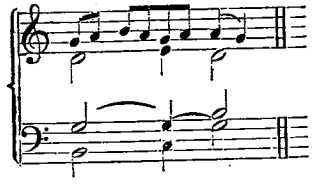


A prolonged suspension of the third ends by being harsh. We must either have a double suspension :



(Both the E and the C must be prepared).

or else we must break up the formula :



Remember too that sometimes the plagal tetrardus is determined without any B in the melody (this is a matter of interpretation and general experience) : for instance, the beginning of Kyrie XIV, Kyrie VII, the Compline Hymn for the Epiphany. We have no hesitation in writing G major at the cadence.

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Except for its cadence, the general trend of mode VIII is very similar to that of mode III; so we need not say more. Besides, although we have arranged our remarks according to the traditional order of the modes, yet the fact remains that modulations occur in all of them: the chief difficulties arise, not from the cadences proper to each mode (determining what mode a piece is in), but from the interplay of the hexachords and from the (fleeting or permanent) modulations of the melody; for the accompaniment must always be a model of discretion and never exaggerate impressions by its chords — for chords always last at least as long as a compound beat.

CHAPTER V.

PSALMODY.

THE AMEN FORMULA.

If there is any part of the plainsong repertory to which any accompaniment is repugnant, it is the psalm-tones. And so here more than ever restraint is necessary. The organ should confine itself to the task of marking the cadences of the mediation and of the ending, without any movement on the reciting-note. The ideal, therefore, is to have one chord for the reciting-note and another for the cadence; but in practice this is not always possible.

Three cases occur:

1° A chord for the reciting-note, followed by a single chord for the cadence (whether at the mediation or at the ending).

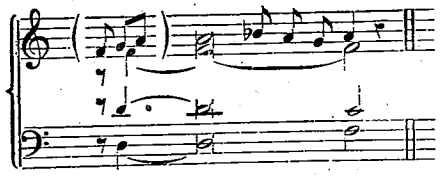
2° An intermediate chord placed on a neum (podatus, clivis, etc). comprised in the melodic formula.

Notice that in these two cases the organist has not to bother whether the cadence is spondaic or dactylic.

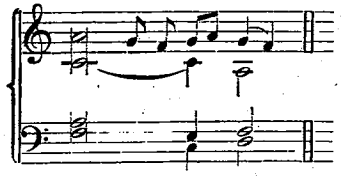
3° A *movable* intermediate chord, depending for its position on whether the cadence is spondaic or dactylic.

We now examine each of the eight psalm-tone formulas separately.

Mode I: Only two chords in the first half:



But in the second half, an intermediate chord is placed on the neum:



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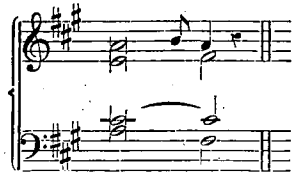
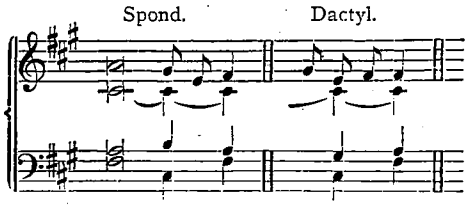
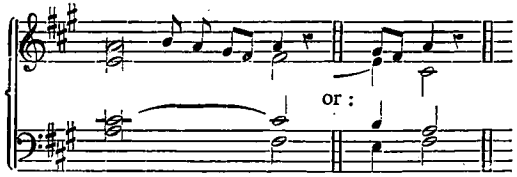
Mode II: (We here take A as dominant for all the modes). Two chords in the first half:



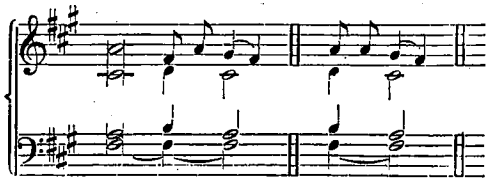
In the second half there is a movable intermediate chord:



Mode III: Either two or three chords in the first half:

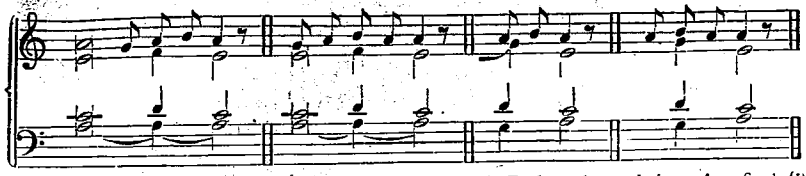


A movable intermediate chord in the second half:



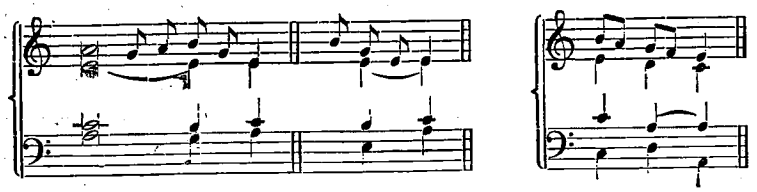
(The other endings present no difficulty).

Mode IV: A movable intermediate chord in the first half:

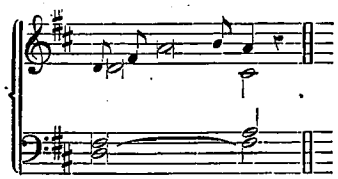


To avoid F whem the mode is on A as final. (1)

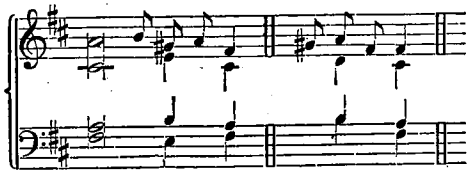
And so also in the second half:



Mode V: Two chords in the first half:



A movable intermediate chord in the second half:



(1) Transposed a fourth lower.

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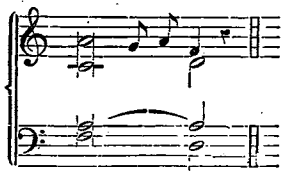
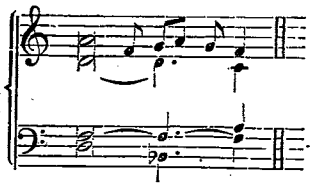
Mode VI : Two chords in the first half :

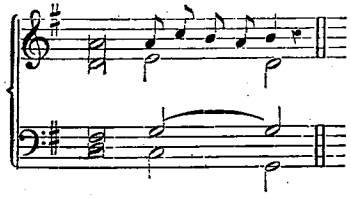


(See Mode I for the alternative formula).

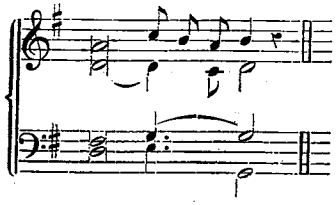
A fixed intermediate chord in the second half :



Mode VII : The mediation presents a serious difficulty : for the high note does not have the ictus unless there is an extra syllable, and yet it cannot come on the tonic chord (1). Theoretically, therefore, we should have to change the chord on the syllable immediately before the high note :

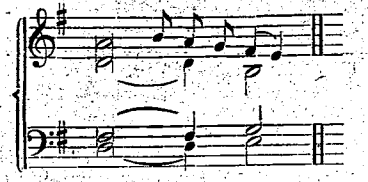


In practice, to avoid such a complication, we propose changing the chord on the high note in every case; this gives a rhythm which is not ideal, but it is possible :



(1) The tonic chord is the only possible one for the reciting-note. D minor (original pitch, A minor in our transposition) will not suit (see our general study of mode VII).

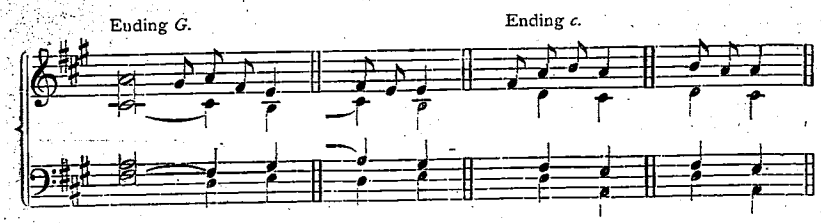
There are two chords for the second part :



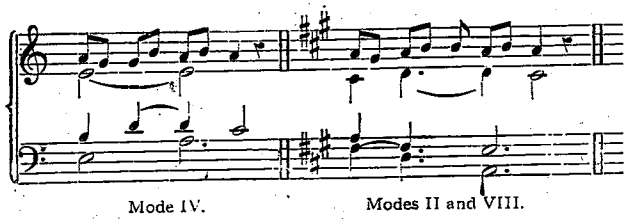
(with a movable intermediate chord for the endings *b* and *d*).

Mode VIII : For the mediation, see Mode II.

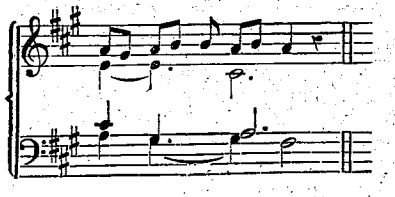
For the second half there is a movable intermediate chord :



The Introit psalmody and the ornate tones for the *Magnificat* offer no difficulty precisely because the neums fix the rhythm. Notice however that in our opinion the mediation formulas for modes II, IV and VIII are compound cadences : hence the following accompaniments :



But if, in mode II especially, we wish to avoid B-flat (original pitch, D-natural in our transposition), we must write :



with the suspension in the bass.

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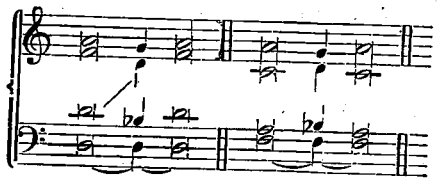
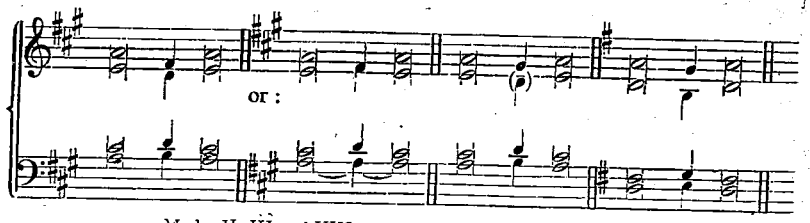
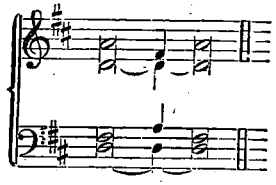
The *flexes* present no special difficulty. In modes I and VI, they come on a bass pedal :



In modes II, III, IV, VII and VIII, they have a chord to themselves :



In mode V, they come on the same chord as the reciting-note :

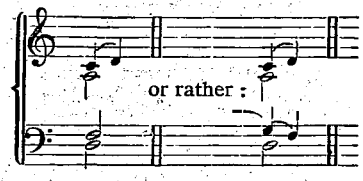


But just as in modes I and VI the pedal is not indispensable (the bass can move from D to B-flat and return to D), so also a pedal is possible in modes II, III, IV, VII and VIII (we have given an example).

It has not been our intention to provide typical harmonic formulas, but merely to give (with examples) the principles which make it possible to obtain the simplest accompaniment, without disguising the fact that accompaniment of the psalms can never be satisfactory. As always, but here more than elsewhere, our chief purpose is to exclude what is bad and wrong.

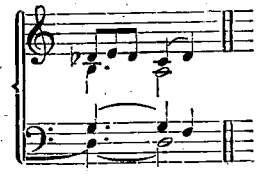
The four Amen formulas raise a difficulty of a different kind. The final (doubled) podatus demands a single chord *(and it must be a different chord from the previous one)*, so that the first note of the group is treated as an appoggiatura of the second.

Thus in the *protus* we have :



But we have to prepare the tenor G and avoid the chord of D minor on the first syllable of *Amen.* With the plagal cadence the solution is simple :

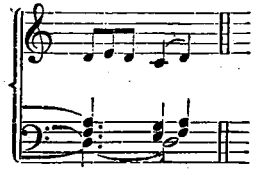
A- men.



But B-flat seldom has sufficient importance in the course of a melody to warrant its use in accompanying the cadence.

However, in some cases, on A, this formula (transposed a fifth higher) is possible.

Otherwise we can only write :

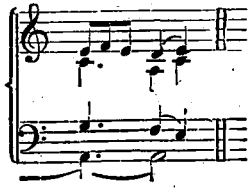


or something equivalent.

Of course, the inner parts are scarcely more than auxiliary-notes. But the very nature of the chord and the length of the melodic C produce the effect of a triple appoggiatura on the first note of the podatus.

In the *deuterus* we find the same problem, with roughly the same solution :

A- men.



In every case we try to place this species of " coda " on a bass pedal.

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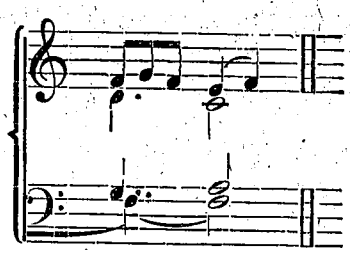
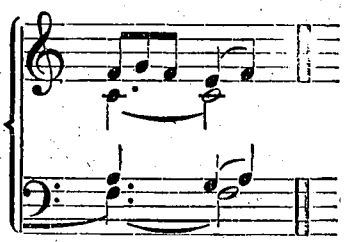
In the *tritus* we are faced with a problem which is practically insoluble because of the melodic leading-note (a phenomenon which is certainly posterior to the golden age of plainsong). To use B-flat would only emphasize the leading-note. A formula such as:

A- men.

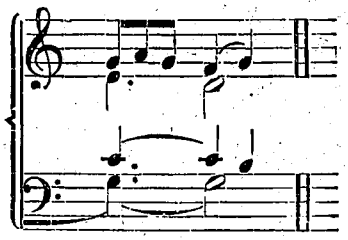


is hardly elegant and sounds bad enough. Perhaps we must reconcile ourselves to the leading-note and write quite simply, with a movement in the tenor (which unfortunately emphasizes the rising movement of the melody):



The *teirardus* alone, which permits the use of the plagal cadence, offers no difficulty:

A- men.



For the other modes, no solution is really satisfactory.

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