## AN APPLIED COURSE IN

#### GREGORIAN CHANT

THE CHURCH MUSICIANS BOOKSHELF Series II No. 2

# AN APPLIED COURSE IN GREGORIAN CHANT

Translated and edited from the official course syllabus of the Gregorian Institute of Paris

bу

Joseph Robert Carroll



GREGORIAN INSTITUTE OF AMERICA 2132 Jefferson Avenue Toledo 2, Ohio

Solesmes rhythmic signs used with the permission of the proprietors, Desclee and Company, Tournai, Belgium

Copyright 1956 by
GREGORIAN INSTITUTE OF AMERICA
Printed in U.S.A.
International Copyright Secured

#### TRANSLATOR'S PREFACE

The following presentation of the elements of Gregorian Chant according to the method of Solesmes is that used in daily teaching at the Gregorian Institute of Paris, official teaching center for Solesmes. As such, its order and emphasis stem from a long practical experience in the teaching of this method and represent a distribution of the material over the school year in an efficient and readily learnable manner. To some, the material included in the first year of study may seem too voluminous. To others it may seem too limited. Each of these attitudes may contain a dangerous misevaluation of the course.

Those who presume that the material outlined in this book is too extensive must reexamine their preparation for chant study. Some elementary knowledge of musical notation is vital as is a certain experience in making music and listening to it. Chant techniques are subtle, not complex. There is no problem of rhythm or mode which will not dissolve before the approach of a patient student equipped with an elementary knowledge of musical theory and the norms of classical music.

Those who presume that the material included here is too limited are prone to approach chant study with a superficial manner which is ill-calculated to tap the secrets of chant style and technique. The materials given here must not be hurried through. Even in rare instances where the student or class using this book is able to digest the basic exercises given here, the teacher should understand that the simple basis of their compilation and progressive order may be expanded to include additional study of a similar type and difficulty.

It cannot be urged too strongly that the early stages of study be taken without haste. The quality of first training never fails to leave its permanent traces on the mature musician.

#### CONTENTS

Transla	tor's Preface
INTRO	DUCTION 5
	Art in Prayer — Gregorian Chant in the Liturgy — Fruits of the Study of Chant — Legislation of the Church regarding Chant — History of the Chant — Period of Growth — The Golden Age — The Notations — Age of Decadence — Restoration of the Melodies — Restoration of the Rhythm — Restoration of the Modality
CHAPT	YER ONE — A Graded Study of Gregorian Notation 12
	The Staff — Clefs — Fundamental Neumes and Their Origins — Special Neumes — The Simple Beat — The Episemas and Dots — The Podatus, Clivis, Bivirga, Distropha, Torculus, Porrectus, Trivirga, Tristropha, Climacus, Scandicus, Salicus, Liquescents, Resupinus and Flexus Neumes, Sub-punctis Neumes, Pressus, The Repercussion, Quilisma, Oriscus, Neumes treated like the Salicus, Disaggregate (Praepunctus) Neumes — The Bars — Rests — The Flat — Mode Numbers — Custos or Guide — Asterisks — Letters — The Titles and Chronological Indications in the Kyriale
	TER TWO — Basic Notions on the Compound Beat the Ictus
	Formation of the Compound Beat — Rules for the Placing of the Ictus — Oral Exercises — Transcription
СНАРТ	TER THREE — The Study of Rhythm
	Classification of the Arts — Matter and Form — Matter in Gregorian Chant — Matter and Form in Gregorian Chant — Musical Rhythm — Definition of Rhythm — Rhythm and the Physical Variations of Matter — The Phonetic Order — The Melodic Order — The Dynamic Order — The Quantitative Order — The Fundamental Rhythmic Cell — The Ictus in the Fundamental Rhythmic Cell

CHAPTER FOUR — The Compound Beat	111				
Formation of the Compound Beat — The Binary Beat — The Double Function of the Ictus — Definition of the Compound Beat — The Ternary Beat — The Compound Beat and the Fundamental Rhythmic Cell — Interaction of the Compound Beat and the Fundamental Rhythmic Cell					
CHAPTER FIVE — A Brief Examination of Gregorian Modality	120				
Definition of the Mode — The Tone — The Major and Minor Mode in Modern Music — The Gregorian Modes — Protus — Deuterus — Tritus — Tetrardus — The Modal Characteristics — Authentic Modes — Plagal Modes — Secondary Finals — Transposition — A Chart for Transposition — Practical Exercises					
CHAPTER SIX — The Latin Word	134				
Monosyllables — Polysyllables — Accents — Atonal Syllables — Paroxytonics — Proparoxytonics — Secondary Accents — The Absorbing of Monosyllables — Conclusions					
CHAPTER SEVEN — Psalmody	137				
Psalms and Canticles — The Verse and Half-verse — The Tones and Formulas — The Antiphon — The Intonation — The Mediant — The Termination — The Tenor or Dominant — The Second, Fifth, Sixth and Eighth Tones — The Flex — Cadences — The Preparatory Syllables — Epenthesis — Determination of the Elements of the Cadence — The Application of Psalmody to Unpointed Texts					
GENERAL INDEX1					
INDEX OF MUSICAL QUOTATIONS1					

#### INTRODUCTION

#### Gregorian Chant in the Liturgy

Gregorian chant is that form of sung prayer which the Catholic Church has officially adopted for Western Christianity of the Roman Rite.

#### Art in the Service of Prayer in Gregorian Chant

"In Gregorian chant the text supplies man with the food necessary for his mind; the music provides him with the substance which his heart needs. Thus both contribute to the complete fulfillment of the human being in his relationship with God." (Le Guennant)

"We can in this instance hardly draw a distinction except by abstraction; church music is not an accessory or an exterior ornament. It is the very life of the prayer taking its complete form; it is linked to the words as the words to the thought, the thought to the soul and the soul to the Holy Spirit." (Father Sertillanges in *Priere et Musique*, p. 12)

#### Fruits of the Study of Gregorian Chant

"The study of Gregorian chant will bring us to experience abundant and very pure artistic pleasures, will obtain for us very appreciable spiritual fruits and will be a remarkable means of apostolate to the extent that we shall have the deep desire of responding to the wishes of the Popes for the finest liturgical praise." (Canon Coudray)

#### Legislation of the Church on Gregorian Chant—Main Sources

Motu Proprio of St. Pius X given the 22nd of November, 1903. Letter of St. Pius X to Cardinal Respighi, Cardinal Vicar of Rome, December 8, 1903.

Motu Proprio of St. Pius X on the Vatican Edition, April 25, 1904. Decree of the Sacred Congregation of Rites on the model Vatican Edition, April 8, 1908.

Constitution "Divini Cultus" of Pius XI, December 20, 1928.

Encyclical "Mediator Dei" of Pius XII, November 20, 1947.

Letter of His Eminence Cardinal Pizzardo to the Ordinaries, on the subject of the teaching of sacred music in Seminaries, August 15, 1949.

(See also Klarmann Gregorian Chant Textbook for a discussion of the main pontifical texts.)

#### History of Gregorian Chant

The History of Gregorian chant may be divided into four principal periods:

- "1) Period of formation: from the beginning of the Church, in particular, from the end of the persecutions (313 A.D.) up to Saint Gregory the Great (590 A.D.).
- "2) Period of highest development with St. Gregory the Great and of diffusion until the thirteenth century. The notation of the melody and the rhythm.
- "3) Period of decadence from the thirteenth to the middle of the nineteenth century.
- "4) Period of restoration from the middle of the nineteenth century to our time."

(Canon Coudray)

#### First Period

The cultual chant of the Catholic Church was constituted in the beginning by elements stemming from various sources whose separate roles are very difficult to determine. What can be seen, however, is that the contributions of the synagogue were evidently very important and that the early Christians certainly used the Jewish psalms and canticles in their assemblies. Then, as the Christian communities multiplied among the Greeks, the Latins, in Asia Minor, Africa, and elsewhere, new elements came to blend with the primitive melodies which were thus enriched by the contact with these diverse civilizations.

At the same time that the chant was developing, the forms of the cult... what were called at that time "the liturgies,"... began to be organized little by little under the initiative of the Bishops. In the fourth century they were in use in and about the great centers of activity such as Milan, Constantinople and Rome. But the time came when concern for unity obliged the Roman Pontiffs (St. Damasius, fourth century) to direct these tendencies, and thus it was that step by step the development progressed up to St. Gregory the Great.

#### Second Period

St. Gregory I, whom history has entitled "the Great", was born at Rome about 543 A.D. and occupied the throne of Peter from 590 to 604.

- "St. Gregory was admirably prepared for his musical work by his patrician education, his monastic vocation, the dignity of Abbot, one of the principal offices of which is organization and presiding over the Liturgy, and lastly by his musical genius." It is certain that St. Gregory himself composed or caused to be composed a certain number of pieces, but his role was, more than anything else:
- "to collect, choose, and give an order to the pieces and to assign to each its place in the liturgical cycle to form the repertoire or the official antiphonary;
- "to reform and bring to perfection the chants which he found in use;
- "to found the Schola Cantorum, an advanced school for church music."

(Canon Coudray)

It was from this foundation that was born what we call the *Roman School*, and it is because of the excellence of the work accomplished by Gregory I that the liturgical chant of Latin Christianity has since been known as *Gregorian chant*.

This chant then spread to England (Gallican School) and to a great extent throughout France with Pepin the Short and Charlemagne. During the reign of the latter, the deacons Petrus and Romanus, sent by Pope Adrian, founded the two famous schools of Metz and St. Gall. There was also the *Ambrosian School* which existed, moreover, before St. Gregory, and the *Mozarabic School*.

The oldest manuscripts which we know hardly go back beyond the ninth century and exhibit various types of notation:

Neumatic notation or neume-accents, (chironomic notation), stemming mainly from two signs borrowed from Latin grammar: the acute accent and the grave accent, combined in different ways and placed above the literary text. This was a very imperfect melodic notation, since the absence of the staff (thus "in campo aperto" notation) made it impossible to indicate the intervals which the voice was to sing but it was a notation very rich in indications of the expressive interpretation of the pieces.

Alphabetic notation, borrowed from the Greeks, in which the notes la, si, do, re, mi, fa, and sol were respectively indicated by the letters A, B, C, D, E, F and G. This was a more precise notation in regard to the intervals, but inadequate as to the unity of the neums.

Bilingual or double notation: both neumatic and alphabetic.

Diastematic notation (indicating the intervals), using the lines which were gradually increased to the number of four, which today forms the Gregorian staff. The neumes are transferred to the staff. There they lose in graphic perfection to the point of attaining the geometric and rigid form of modern typography. The primitive accents have become "points" which can be located with precision on the staff (neume-points).

While with the diastematic notation intervallic precision was assured, this development was a reduction, an impoverishment. The rhythmic details disappeared and this deformation changed Gregorian chant by undermining it at the very sources of the life which animated it.

The rhythmic tradition was, in fact, in the beginning, oral, like the melodic tradition. From the moment that the scribes had fixed the melody "in campo aperto," they added to it the rhythmic indications. "To attain this end, regional schools were established whose influence was considerable. Whether by modifying the graphic form of the neume-accents or by adding to them complementary signs or letters whose meaning was known, these schools succeeded in determining the length, the brevity or even the expressive character of certain groups or of certain notes. Moreover, the comparative studies undertaken on the manuscripts prove that with means sometimes quite different, but in every case uniform within each school, the masters

of Gregorian science arrived at a stabilization of the traditional rhythmic interpretation." (Le Guennant)

It is these lost rhythmic details which the Solesmes signs have restored.

#### Third Period — Causes of the Decadence

- 1) Gradual abandoning of the rhythmic traditions;
- 2) The more and more marked influence of the new polyphony;
- 3) The arbitrary attributing of unequal durations to the various forms of notes as a consequence of a lack of knowledge of the origins of Gregorian notation;
- 4) The abbreviation of the melodies and the tendency to execute them in a heavy, wooden manner;
- 5) The Renaissance, with its misunderstanding of everything medieval;
- 6) The complete misunderstanding, from the end of the fourth century, of the Latin tonic accent of the ecclesiastic period. (Canon Coudray)

All this led, in 1614, to the edition which is called "Medicean," because it was produced by the printers of the Medicis at Rome, which was the point of departure for a multitude of abridged editions in which Gregorian chant became unrecognizable.

#### Fourth Period — Restoration

The restoration of Gregorian chant, the beginning of which was marked by the re-establishment of the Roman liturgy in France in the wake of the efforts of Dom Gueranger, is characterized by the return to the manuscripts and was accomplished mostly by the Benedictines of Solesmes. This restoration may be viewed from three different aspects: melodic and rhythmic firstly, then modal.

#### (a) Melodic Restoration

In 1847, discovery of the bilingual manuscript of Montpellier by Danjou, organist in Paris;

In 1848, Father Lambillotte restores a very precious manuscript of St. Gall attributed to the deacon Romanus himself;

In 1850, publication of the "Remo-Cambresienne" edition which constituted an attempt of restoration deemed, however, insufficient by Father Lambillotte who refused to take part in the Commission charged with is preparation;

In 1856, Dom Jausions, on the order of Dom Gueranger, Abbot of Solesmes, begins the study of the manuscripts of France;

In 1880, Dom J. Pothier of Solesmes Abbey publishes his famous work "Les melodies gregoriennes d'apres la tradition," then

In 1883, the Liber Gradualis (for the Mass) and

In 1891, the Liber Antiphonarius (for the Office);

In 1889, Dom Mocquereau, disciple of Dom Pothier, launches the famous Solesmes publication, the *Paleographic Musicale*, in which he "defends the work of restoration of Dom Pothier, reproduces the manuscripts photographically to permit the scholarly world to follow the work of restoration, and succeeds in destroying on scientific and artistic grounds the reputation of the Medicean edition, the privilege for which had been renewed for Pustet of Ratisbon, the publisher, in 1873." (Canon Coudray)

In 1890, Dom Mocquereau founds the studio of "musical paleography" in which Dom Gajard was to become his principal assistant;

In 1903, St. Pius X confides to a special Commission, set up at Rome, the editing of an official edition based on the work of Solesmes. This edition, called the "Vatican," appeared in 1907 for the *Gradual* and in 1912 for the *Antiphonary*.

A decree of the Sacred Congregation of Rites, April 11, 1911, authorized Solesmes to edit the Vatican edition with rhythmic signs whose authenticity is unquestionable. It is in this form that it is generally used, although in certain areas the pure Vatican text is adhered to, that is, without additions of any sort.

#### (b) Rhythmic Restoration

After the work of Canon Gontier in 1859 and that of Dom Pothier, Dom Mocquereau issued his important work, Le Nombre Musical Gregorien of which the two volumes published, the first in 1908, the second in 1927, study the rhythm of the melody, the rhythm of the Latin word and lastly the agreement between the melody and the Latin text.

The influence of the Solesmes School and the spreading of its method of interpretation have made, in the last few years, great strides, largely because of the creation of Schools among which we can cite only a few: The Pontifical Institute of Sacred Music at Rome (1910), Pius X School of New York and, in France, the Gregorian Institute of Paris (1923). To the latter are affiliated the greater part of the provincial schools which have since been founded. The Gregorian Institute of America was founded in 1941.

The Director of the Gregorian Institute of Paris, Dr. Auguste Le Guennant, is at present in the course of publishing a *Precis de rythmique gregorienne* in which, reaffirming the thesis of Dom Mocquereau, he shows its perfect agreement with the laws which govern the interpretation of music in all its forms.

Dom Gajard has published, for his part, several monographs, a series of articles in the Revue Gregorienne, a brochure, Notions sur la rythmique gregorienne and, in 1951, The Method of Solesmes.

#### (c) Modal Restoration

Lastly, in the domain of modality, important research prepared by Dom Sergent, begun by Dom Desrocquettes, are continued principally by M. Henri Potiron, professor at the Gregorian Institute of Paris, in intimate connection with Solesmes.

### CHAPTER ONE GRADED STUDY OF GREGORIAN NOTATION

#### **Basic Elements**

1. Greg	goria	n notati	on, such	as it	appears in	our	modern	editi	ons,
reproduces	the	Gothic	notation	of	diastemati	c ma	nuscripts	of	the
fourteenth	and t	fifteenth	centuri	es.					

2.	The	notes	are	arran	$\operatorname{ged}$	on a	staff	of	four	lines	:
		•	=								_
			-								

3. The name of the notes is determined by two kinds of clef:

The C clef:



on the second, third or fourth line, and

The F clef:



on the third and fourth lines.

This clef nomenclature recalls the C and F clefs which derive from the alphabetical notation.

4. Reading in either of these clefs will be found quite easy through an exact and rapid evaluation of the *intervals*.

5. The notes, ALL EQUAL IN LENGTH, in spite of their different forms, are represented by neumes.

The word "neume" comes from the Greek and means "sign."

6. Fundamental neumes: the virga and the punctum

In the diamond-shaped form the punctum is never found except as a part of a group or larger unit. It cannot stand alone.

#### Origin of Neumes

The neumes originated in the grammatical accents of the Latin language.

The acute accent became the virga

The grave accent became the punctum

Thus there is a difference between the neume elements of a melodic order.

- 7. Special neumes. These are never found alone on separate syllabes, and, for that reason, are not placed among the fundamental neumes:
  - The Apostropha:  $\bullet$  which gave birth to the family of strophicus (Distropha  $\blacksquare$  and tristropha  $\blacksquare$   $\blacksquare$  );
  - The Oriscus: which is nothing but an apostropha added to a preceding element, and the transcription of which in the Vatican edition is either a punctum or a virga;
  - The Quilisma: the origin of which is unknown.

#### GREGORIAN CHANT

N. B. Each of these signs, transcribed conventionally by the eighth-note of modern notation, corresponds to a sign of which the length is

#### ONE SIMPLE BEAT<sup>1</sup>

Since Gregorian chant is made up of a succession of simple beats, it follows that their movement is *regular* or *isochronic*, provided that no supplementary sign is interposed to alter this length.

8. These supplementary signs are principally:

The Horizontal Episema



which indicates a *slight broadening* of the note or group which is affected by it (an expressive sign rather than a quantitative one).

The Mora Dot

a. . 9 g: h:

which doubles the note (quantitative sign). Thus the dotted note is transcribed, *conventionally*, of course, as a quarter-note in modern notation.

#### **Neumatic Combinations**

9. For two different sounds, regardless of the interval between them:

- Podatus an ascending neume composed of a punctum and a virga
- Clivis a descending neume composed of a virga and a punctum
- 10. For two identical sounds:

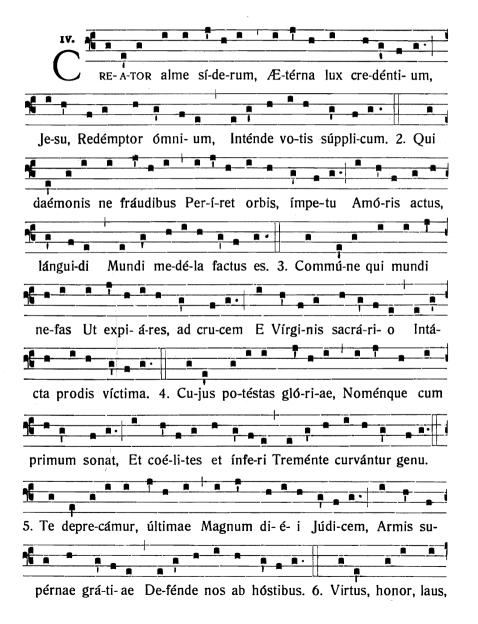
Bivirga made up of two virga combined

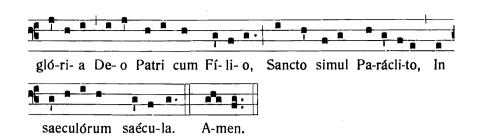
Ostropha (Strophicus family) made up of two apostrophas, actually printed as two punctums in combination

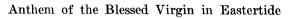
<sup>1.</sup> For examples of transcription into modern eighth-notes, see pages 99 through 102. See also the Schema on the back cover.

11. Reading exercise: Go through the following selections naming the neumes as each is encountered:

#### Vesper Hymn of the First Sunday of Advent









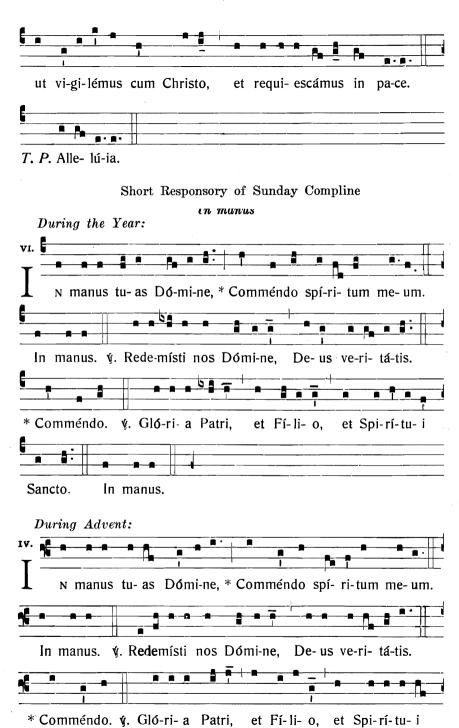
lú-ia: O-ra pro no-bis De- um, alle-lú- ia.

#### Antiphon of Sunday Compline



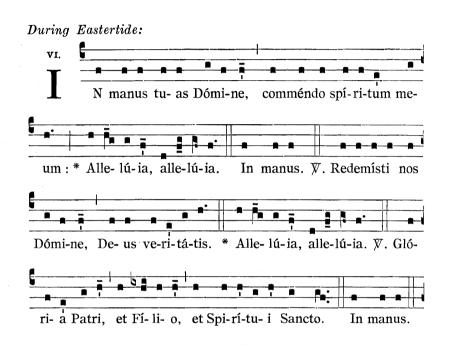
#### Antiphon of Sunday Compline

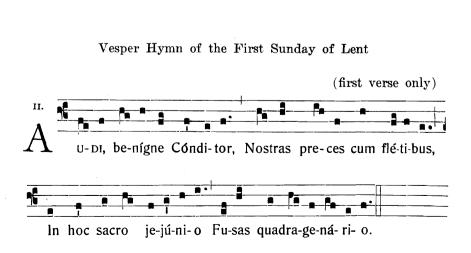




#### GREGORIAN CHANT





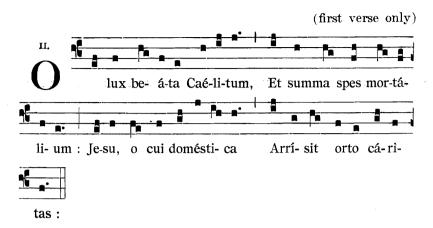


#### Hymn for Sunday Vespers



#### GREGORIAN CHANT

Vesper Hymn for the Feast of the Holy Family



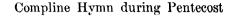
Kyrie XVI (except for the final invocation)



12. For three different sounds, regardless of the intervals involved:

Torculus	Punctum, virga, punctum					
Porrectus	¥	Virga, punctum, virga				
Trivirga		Three virgas combined				
Tristropha	***	(Strophicus family) three apostro- phas, actually printed as three punc- tums in combination				
•		<u> </u>				

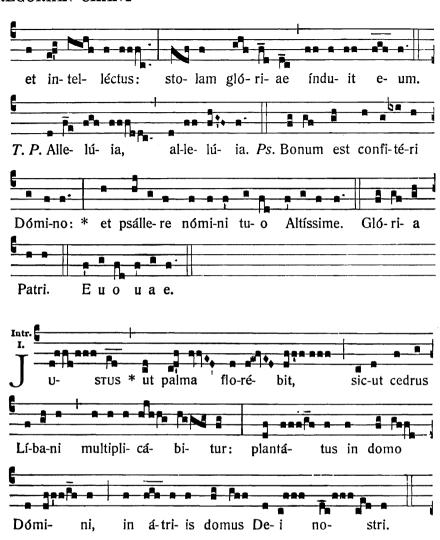
13. Reading exercise. Go through the following selections naming the neumes as each is encountered:





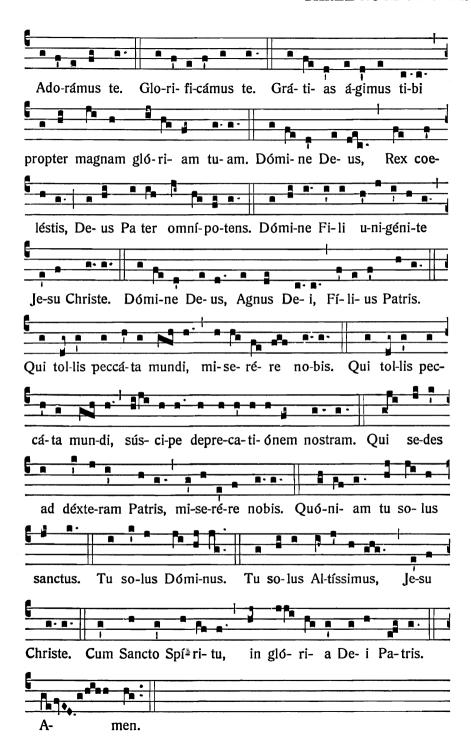
Find the Strophicus forms in the Introits In Medio and Justus ut palma.





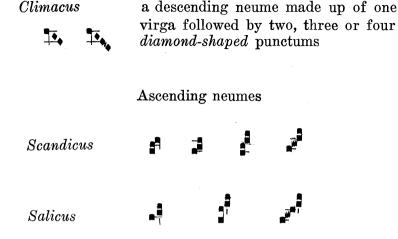
Gloria X (up to, but not including Cum sancto)





#### GREGORIAN CHANT

14. Three sounds, or more, in the same melodic direction (various intervals).

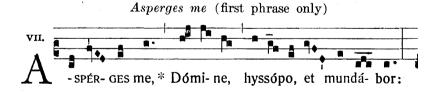


15. The salicus is distinguished from the scandicus by two absolutely incontrovertible conditions:

Firstly, that the two final notes of the salicus form a podatus;

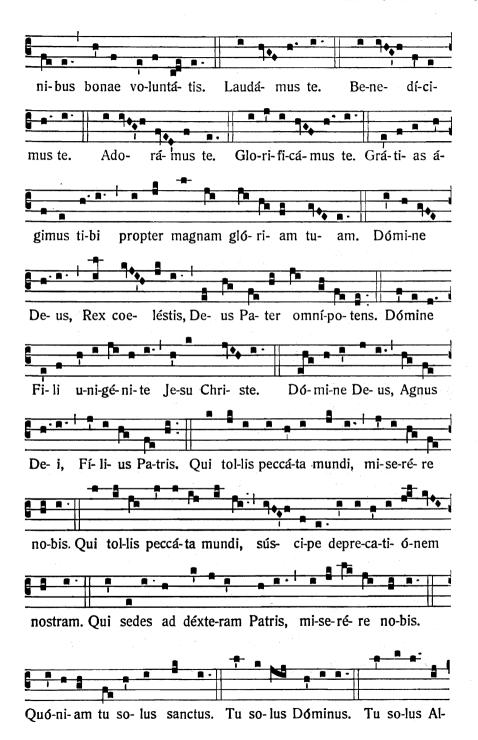
Secondly, that the little vertical dash is placed under the next-tolast note, and as an exception, coincides with a slight lengthening of this note.

16. Reading exercise. Go through the following pieces naming the neumes in order:

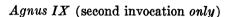


Gloria IX from Glorificanus te on, omitting suscipe and the entire phrase and the entire phrase Cum sancto.



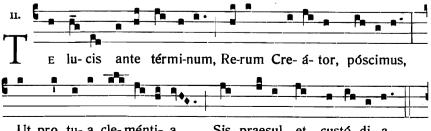




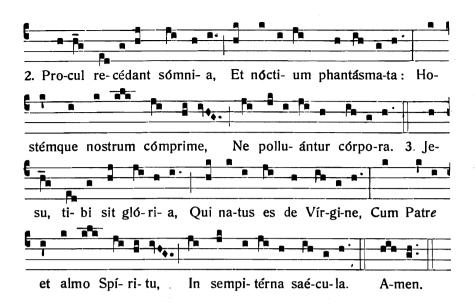




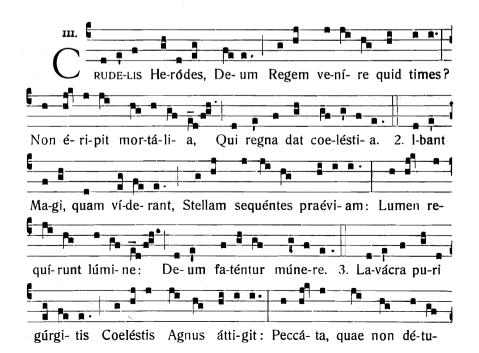
Hymn for Sunday Compline on Feasts of the Blessed Virgin



Ut pro tu- a cle-ménti- a, Sis praesul et custó-di- a.

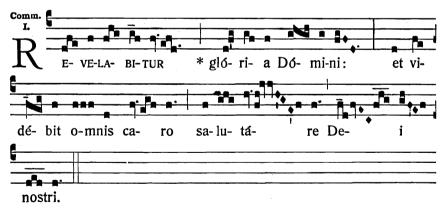


#### Vesper Hymn of the Epiphany





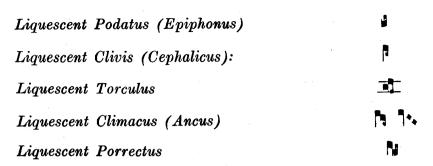
Communion of the Vigil of Christmas (taking only neumes of two or three notes)



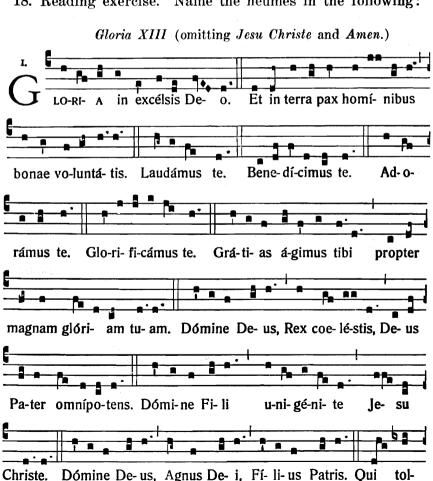
#### 17. The So-called "Liquescent" Neumes

Certain neumes end with note-heads markedly smaller than those normally used. These are found sometimes at the junction of two vowels forming a diphthong (autem, ejus), sometimes of certain consonants (omnes, sanctus, excelsis) or before certain other consonants petra, melle "cibavit").

The liquescent note or notes (semi-vocals) lose part of their clarity and force, but not their length.



18. Reading exercise. Name the neumes in the following:





#### 19. Developed Neumes

"Resupinus" (turning back upward) neumes are those which, normally ending in a downward movement (torculus, climacus), rise again on one extra note in an upward direction, the interval not being important in this regard.

Usually, but not absolutely, the added note falls on the next highest stepwise note in relationship with the final note of the basic neume:

Climacus resupinus

Torculus resupinus

The torculus resupinus most often takes this latter form which is not to be confused with the porrectus:

20. "Flexus" (flexed) neumes are those which, normally ending in an upward movement (porrectus, scandicus) are deflected backward in a downward movement on one extra note, again the interval not being of consequence.

Porrectus flexus

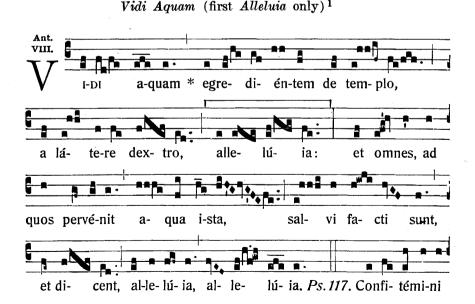
Scandicus flexus

21. "Sub-punctis" neumes are those which, normally ending in an upward movement, (podatus, scandicus, salicus, porrectus) carry a "tail" of descending punctums, stepwise or otherwise, all having the diamond-shape form.

Podatus subbipunctis

Scandicus subtripunctis

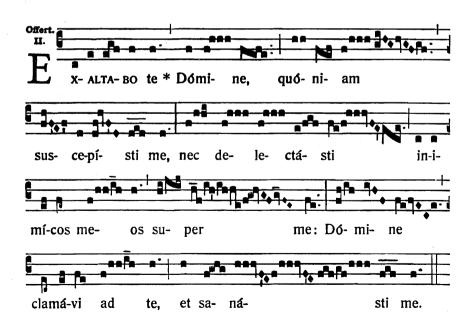
22. Reading exercise. Name the neumes in the following:



1. In this and other examples throughout the book the entire composition is given, even though only a small part of it is now being considered, as this will provide sight-reading material for later phases of study.



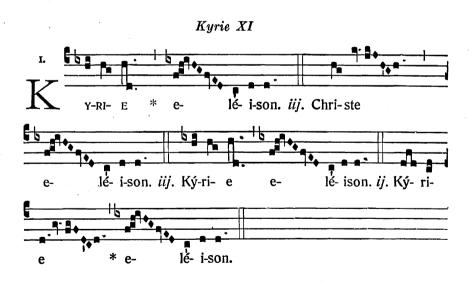
Offertory of Ash Wednesday (first phrase only)

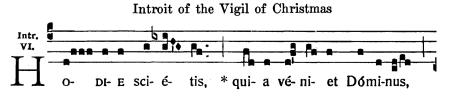


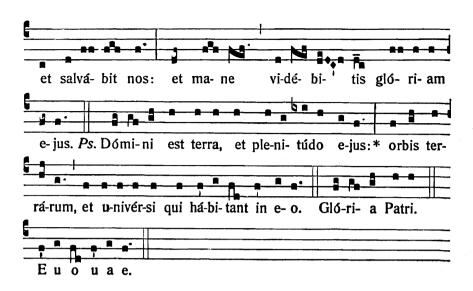
#### Gloria I (intonation only)



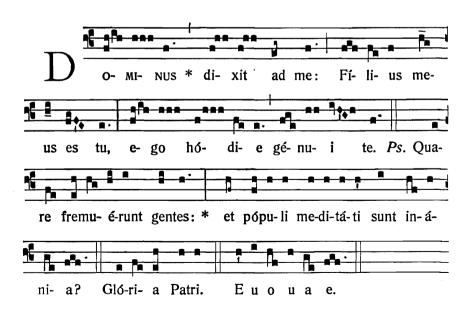




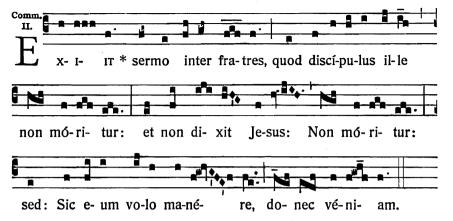




Introit of Christmas, Midnight Mass



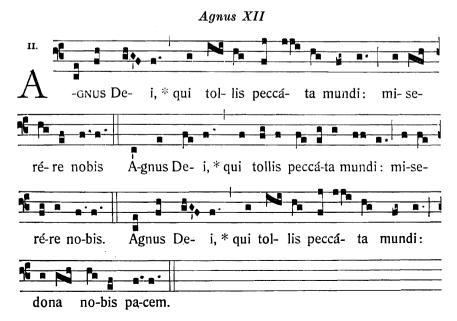




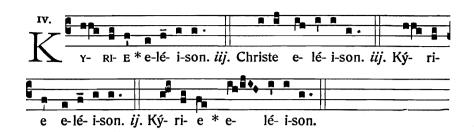
#### 23. Blended neumes

Certain neumes form a pressus, that is to say, a fusion into a single sound, by the junction of two notes belonging to two different neumes which fall together at the unison and over the emission of a single syllable:

(1) The authentic pressus, a punctum before the regular clivis form:



## Kyrie XVIII



Introit of Holy Thursday (after in cruce)



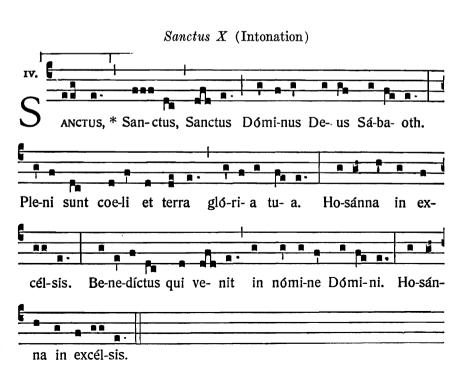
- (2) The pressus of assimilation, made up of two types of formation:
  - a) Punctum or virga before any other neume, for example



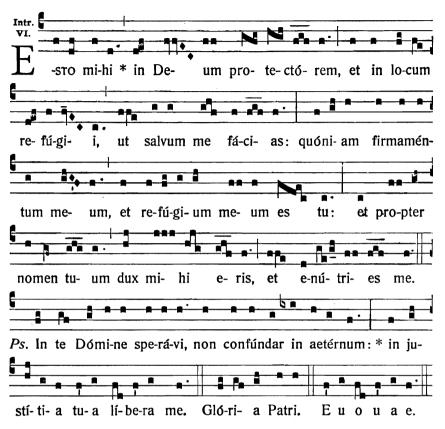
Reading exercise: Find these forms in the examples given below:



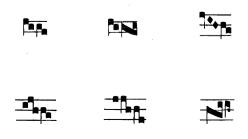




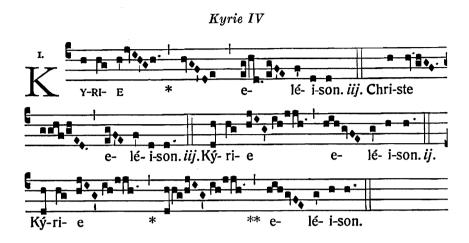
Introit for Quinquagesima Sunday



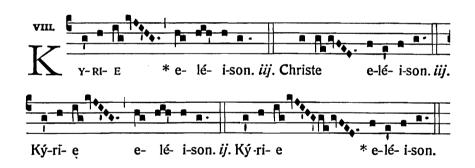
b) Junction at the unison of any two neumes of at least two notes each:



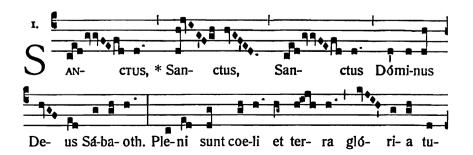
24. Reading exercise for review and for recognition of the pressus:

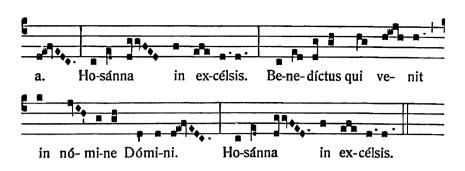


Kyrie XII

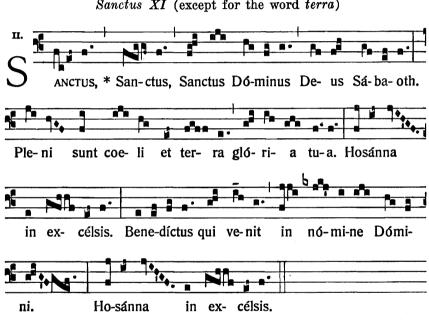


Sanctus II





Sanctus XI (except for the word terra)

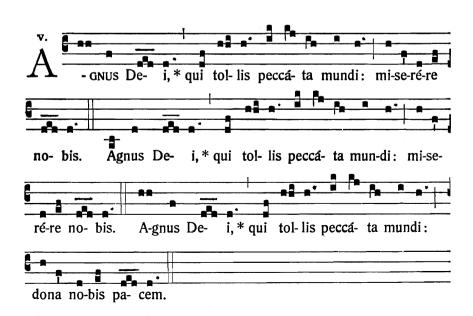


Mass XVII (Sixth Mode Kyrie, Sanctus and Agnus)







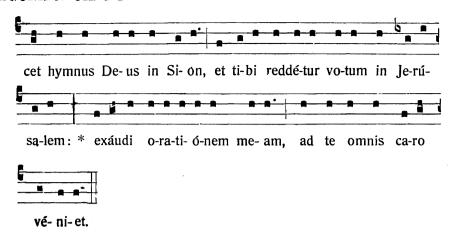


## Introit for Sexagesima Sunday



Introit of the Requiem Mass





# 25. Non-blended Neumes: Repercussion

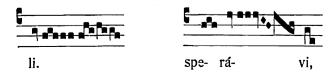
What is the repercussion of a sound? It is simply the repetition of it, that is, the distinction of it from the sound which immediately precedes it.

This cannot apply, of course, except to successive sounds, that is, those which present no melodic variation and lie at the unison . . . on the same pitch, and grouped on the same syllable.

It follows that the *repercussion* and the *pressus* are diametrically opposed.

Wherever a pressus comes, there can be no repercussion, and vice versa.

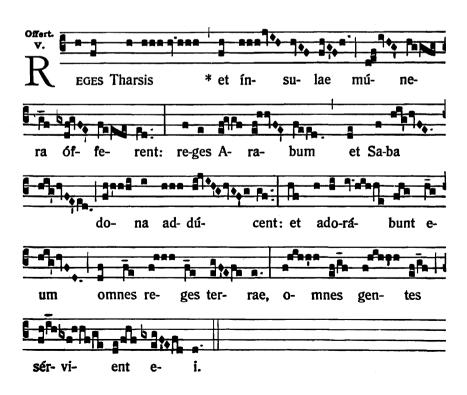
In order to make a distinction, without possible error, between the pressus and the repercussion, remember that when in a given passage one finds a number of notes at the unison, UNLESS THE GROUP OF THESE NOTES TOGETHER TAKES THE FORM OF A TRISTROPHA, the passage contains at least one, and possibly several repercussions.



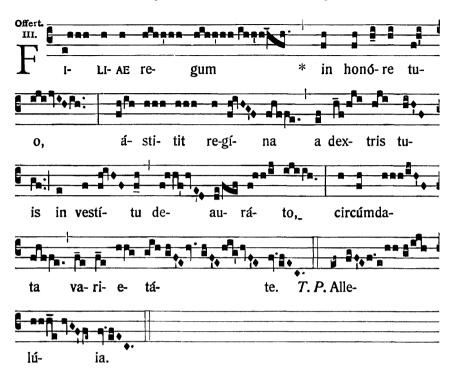
26. There are *two kinds* of repercussion, and the following examples in both modern and Gregorian notation will make the difference between them clear:



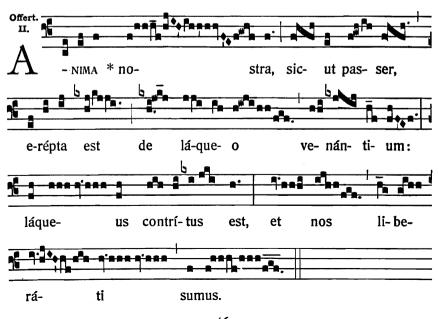
Offertory Reges Tharsis



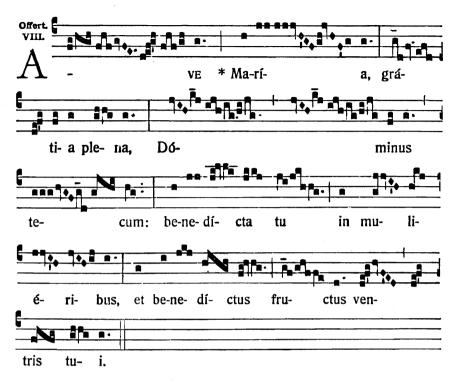
Offertory of the Common of a Virgin



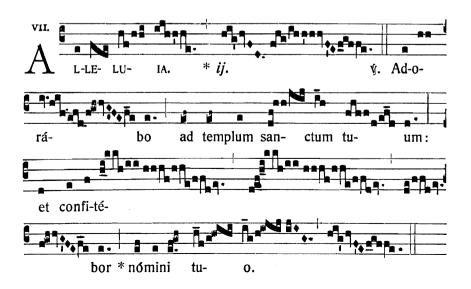
Offertory of the Holy Innocents



# Offertory of the Fourth Sunday of Advent



Alleluia of the Dedication of a Church

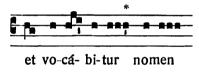


# 27. Why these repercussions?

"In order to preserve, at least to some extent, the independence of the neumes which form a junction at the unison on the same syilable (when, paleographically, these two neumes do not form a pressus), the repercussion helps in maintaining the value of the notes, and, even more, in safeguarding the feeling for the rhythm which, without this repercussion, could easily get lost in vague dronings." (P. Carraz)

This is, in effect, what happens in actual practice when the repercussions are not observed.

- 28. Case of an ictic third note of a tristropha: the ictus sometimes placed on the third note of a tristropha may call for repercussion or not, according to the case, which will fall into one of the three following categories:
- a) This ictus does not call for a repercussion (and is thus purely mental) in the case of a tristropha followed immediately by a new syllable:



b) This ictus takes a repercussion when the tristropha is followed by a virga on the next step above, a case which can only occur in the vocalises and is equivalent to the ear to a podatus.



c) This case does not call for repercussion, since the first rule above (a) applies, rather than the second. Rule (a) always takes precedence over Rule (b):



# 29. Reading exercise for recognition of repercussions:

Introit of the Third Sunday of Lent (omit word me)

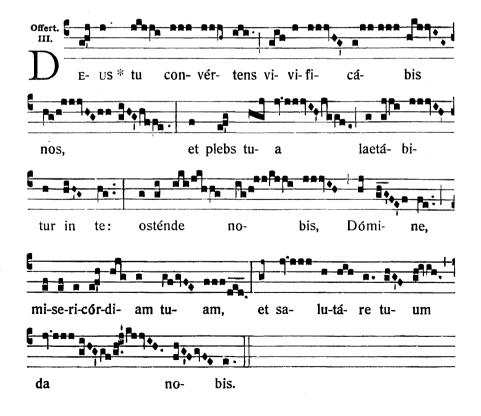


Offertory of the First Sunday of Advent (omitting the word meus)

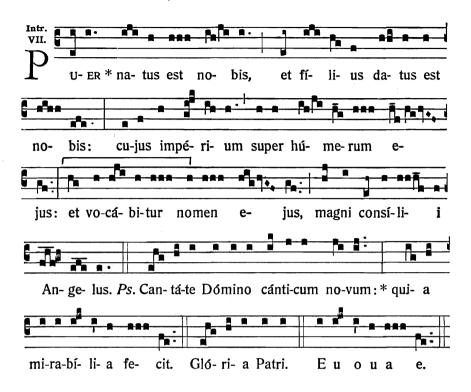




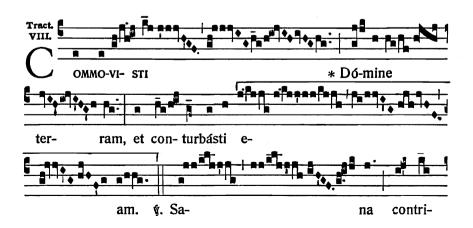
Offertory of the Second Sunday of Advent

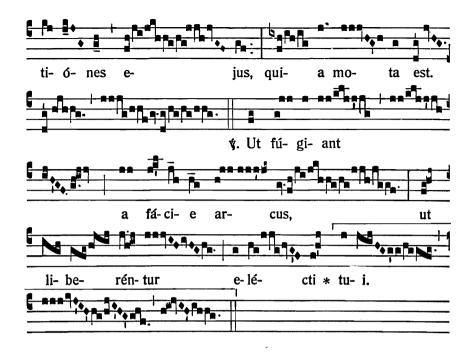


Introit of the Day Mass of Christmas (at et vocabitur)



Tract of Sexagesima Sunday (at words eam and tui)





30. Special notes on certain neumes: The Quilisma

The quilisma, as we have seen, is never found alone. It is found in ascending neumes and calls for the *expressive lengthening* of the note or two notes which precede it.

The group including a quilisma is called "quilismatic":

Quilismatic scandicus Quilismatic salicus

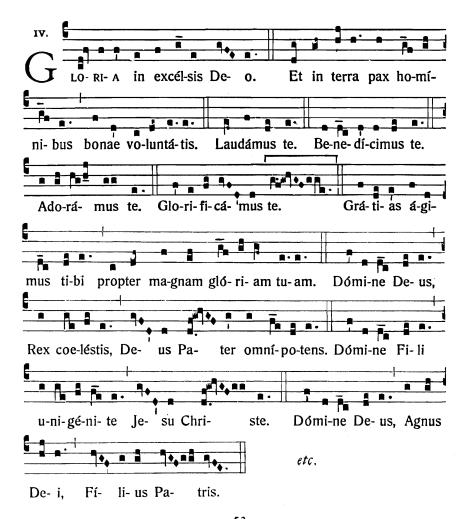
31. Around the quilisma are sometimes formed very developed neumatic groups which cannot, because of their complexity, be given any special names. In reality they are the result of a kind of amalgamation of two or more neumes which it is easy to analyze in practice by considering that their melodic design forms a broken line at the intersections of which may be found a note which may be supposed to be common to two neumes and by which they are bound together.

Thus this very frequent combination can be analyzed:

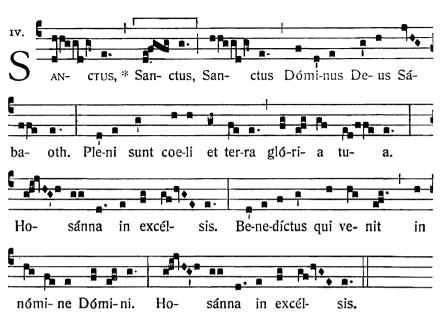


blended clivis, quilismatic scandicus and porrectus, or in holding strictly to paleographic indications, clivis, quilisma-torculus resupinus, forming a group.

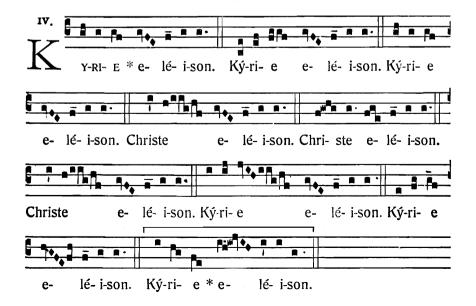
Gloria IV (at word te following Glorificamus)

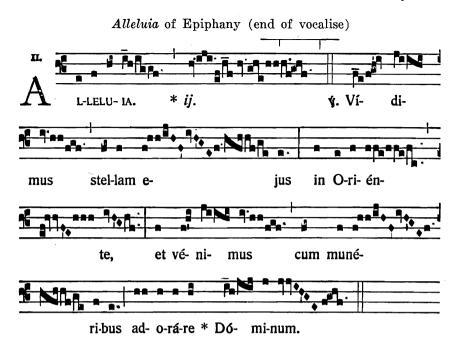


## Sanctus V (second word)

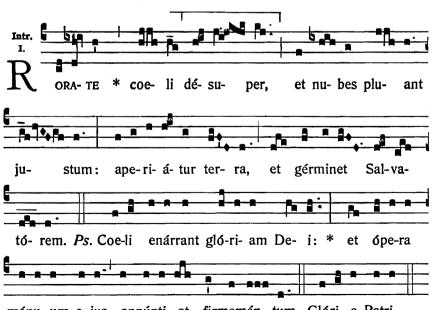


Kyrie XV (final phrase)





Introit of the Fourth Sunday of Advent (at desuper)



mánu- um e- jus annúnti- at firmamén- tum. Glóri- a Patri.

#### 32. The Oriscus

The oriscus is an apostropha added to the last note of a neume, either at the unison with this final note, generally in the form of a punctum



or added to this neume on the note lying one step higher than the final note of the neume, usually in the form of a virga



In the former case, a long note is thus formed by this addition, "giving the impression of a delicate release of an extended final note" (P. Carraz), and this must not be confused with the pressus, the performance of which, in many instances, calls for a slight intensity.

The second case, that of the oriscus on the step above the final note of the neume (in the form of a virga), is not always easily recognized by the student, but if he will remember that this is an oriscus when this final virga stands as the *last element* of the scandicus as shown here, but that it is merely a virga when it is followed by diamond-shaped punctums, he will soon learn to make a distinction between them.

33. To avoid all confusion between the terms pressus and oriscus, let us recall that:

# The Pressus

## The Oriscus

The	pre	ssus	is	not	one	n	ote,	but
rathe	er a	comb	oina	tion	of t	wo	note	S

The oriscus is one note

The pressus always is formed of two notes at the unison

The oriscus is not necessarily at the unison with the preceding note

The pressus is always followed by at least one note belonging to the same group as its second note.

The oriscus is never followed by another note

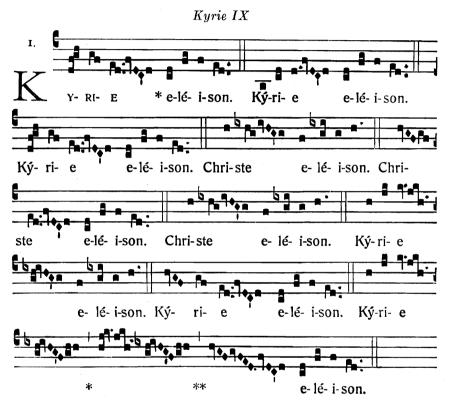
The first note of the pressus is always ictic

The oriscus itself is never ictic; in every case it is the preceding note which receives the ictus, and in the case of the oriscus on the next step above, Solesmes has put a vertical episema on the preceding note

34. Thus the expression which is often used, "oriscus group," is inexact. Note that the oriscus does not have any special form in recent Vatican editions.

## 35. Locate the oriscus and other neumes in the following:

# Oriscus at the unison



Sanctus XI at terra (See p. 41)

Communion of Epiphany

I- DI- MUS \* stellam e-jus in O-ri-énte, et vé-ni-

Dómi-

num.

ad-o-rá-re

bus

mus cum muné-ri-

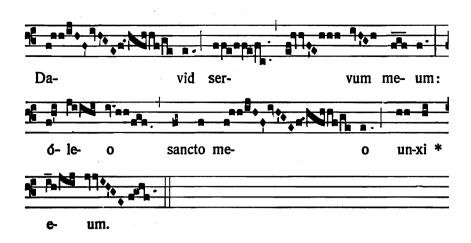
# Oriscus on the next step above

Introit of the Third Sunday of Advent



Alleluia of the Feast of St. Basil



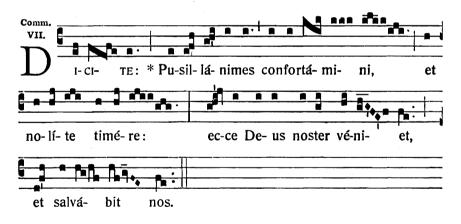


### Vesper Hymn of the Ascension



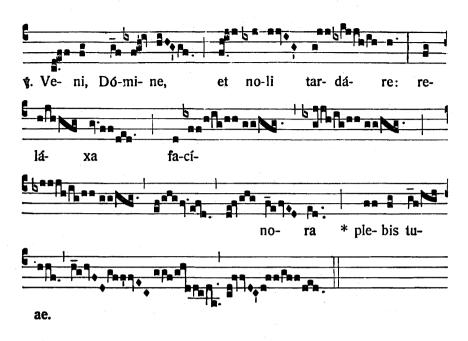


# Communion of the Third Sunday of Advent



Alleluia of the Fourth Sunday of Advent





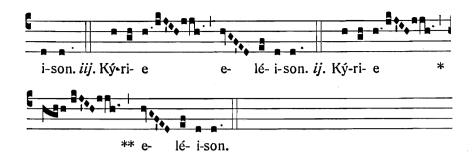
# Comparison between the pressure and the unison oriscus (See Table, page 56)

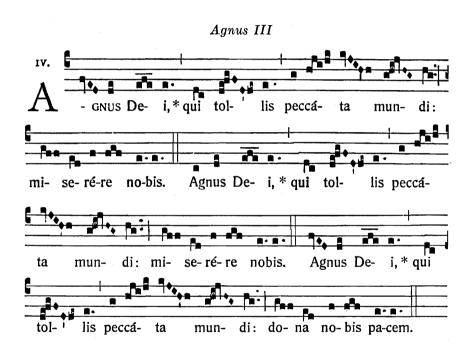




Kyrie XI ad libitum

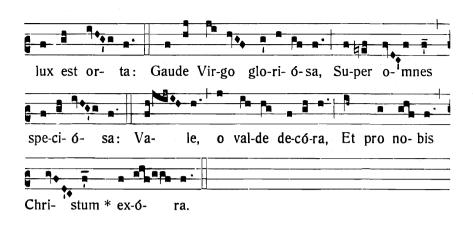




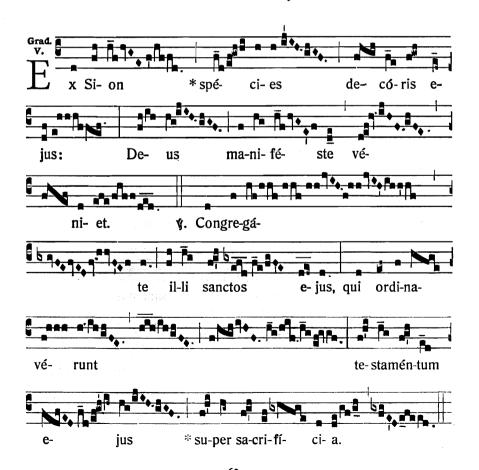


Anthem of the Blessed Virgin from Purification to Holy Week (Solemn tone)





## Gradual of the Second Sunday of Advent



## Communion of Christmas, Day Mass



## **EXCEPTIONS**

Anthem of the Blessed Virgin from Advent to the Purification, Solemn tone (at the word Alma)



#### 36. Neumes similar to the salicus

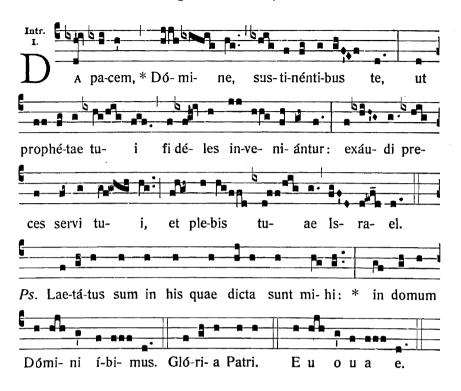
In the following formula, that of a podatus of the interval of a fifth or fourth, ictic on its second note and followed by a virga on the next highest note, we have the representation, according to Dom Mocqureau, of the contraction of two podatus, which should thus be given an expressive lengthening on the ictic note, at least equal to that which is applied to the ictic note of the salicus.



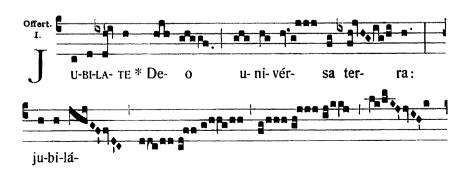
See:



Introit of the Eighteenth Sunday after Pentecost

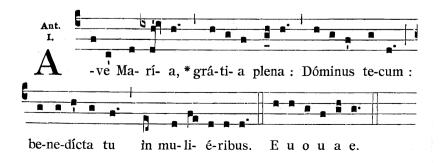


Offertory of the Second Sunday after Epiphany





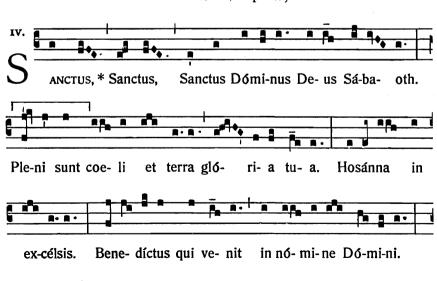
Antiphon of Second Vespers of the Annunciation



# Vesper Hymn for Corpus Christi



# Sanctus I (at pleni)

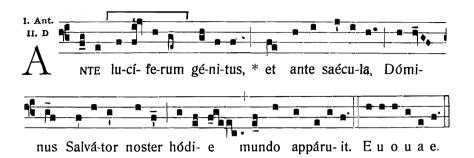




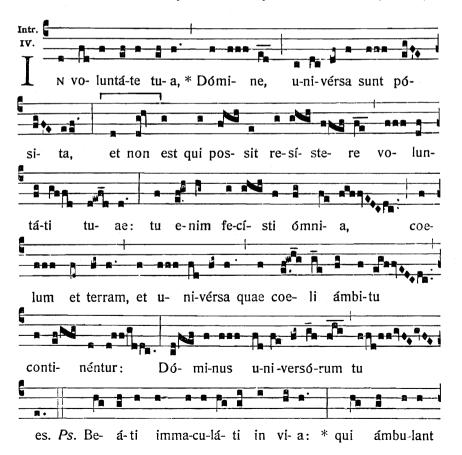
Ho- sánna in ex-cél- sis.

# Podatus of a fourth

First Antiphon of Second Vespers of the Epiphany (at the word luciferum)



Introit of the Twenty-First Sunday after Pentecost (at non)

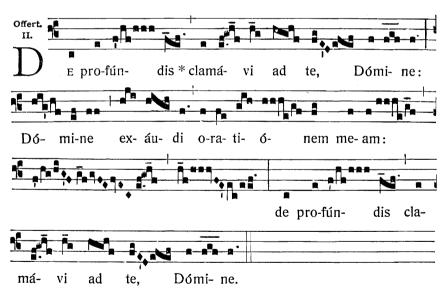


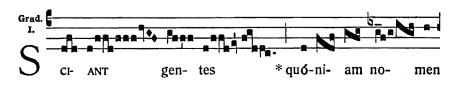


# 37. Disaggregate neumes

These include groups of at least three notes (as reference, see below, the Offertory of the Twenty-Third Sunday After Pentecost), of different pitches, preceded by a punctum which is lower than its first note and separate from it.

This punctum ordinarily coincides (see Gradual of Sexagesima, Nomen, Deus, given below) with the emission of a new syllable and receives the rhythmic ictus in preference over the group which follows. Moreover, it receives a slight broadening of an expressive nature which equals that given to the note preceding the quilisma. It can be doubled in certain cases, but this must not be taken as a general rule.







Actually, the neume begins on the isolated punctum. This group:



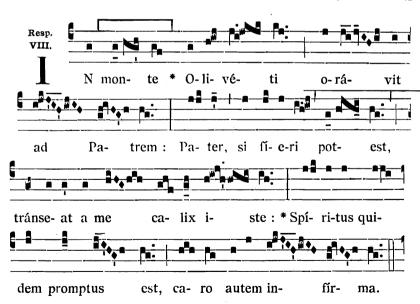
is a scandicus flexus of this 'disaggregate' type. This process of separation has a rhythmic significance. We have here one of the modifications of the usual graphic form of the neumes to which we alluded on page 5 and which the copyists of the manuscripts used to indicate the rhythm.

Thus we do not use the expression "Praepunctis-neume" in this categorizing, since it does not indicate the unity of the real neume to which the isolated element belongs. We call to the reader's attention, however, that the term disaggregate is uncommon in English, and although it can be twisted to apply to the neume in question, we

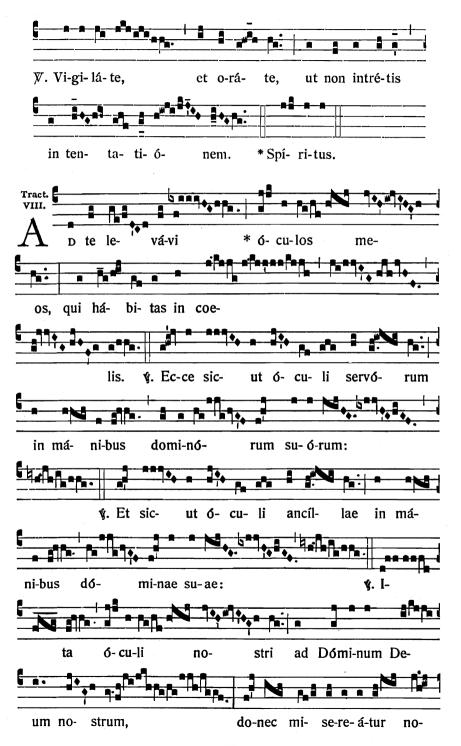
would prefer to maintain the expression praepunctis-neume, since in English it can as easily represent the whole neume unit as could any other terminology. The objection to the term praepunctis stems from its use in French, the language of the Solesmes scholars. The placement of the adjective after the noun in French precludes the useful English manner of making a unified idea of the adjective-noun combination by placing the adjective first. This may seem somewhat involved to the student, and such bickering over terminology may seem to be an exaggeration of detail, but in reality it is founded on experience with providing student terminology for chant study over many years. Often very tiny factors can cause major misunderstandings.

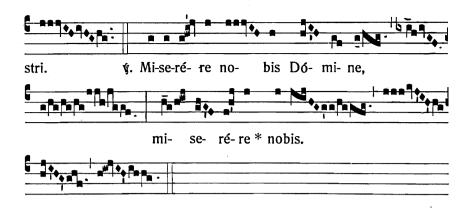
Our solution to this point of terminology is this: in this volume, we shall use the term "disaggregate" with the understanding that it is synonymous with *praepunctis*. We suggest that this latter term be generally used, with an explanation of the meaning as given above wherever it is used in print.<sup>1</sup>

See Vidi Aquam (p. 31) at dextro and dicent. Compare this with the words monte and potest of the Responsory In monte of Holy Thursday (below) and with the word Domine in the Tract of the Third Sunday of Lent (p. 73).

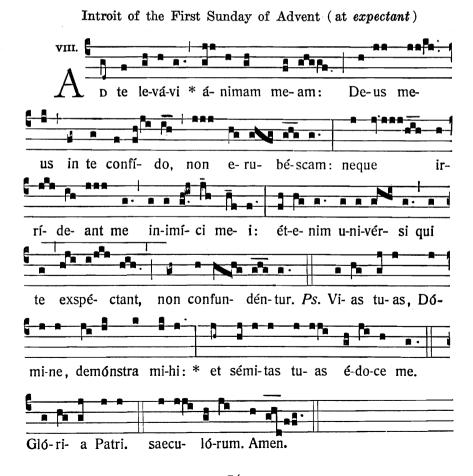


<sup>1.</sup> The Revue Gregorienne (1951, Nos. 5 and 6 and 1952, No. 1) carried a documented study on the "desagregation neumatique." One may refer to this article, but without trying to see such disaggregate neumes everywhere in the Vatican Edition after reading it! The general indications given here will be enough for the moment. See the note on the final page of this chapter.

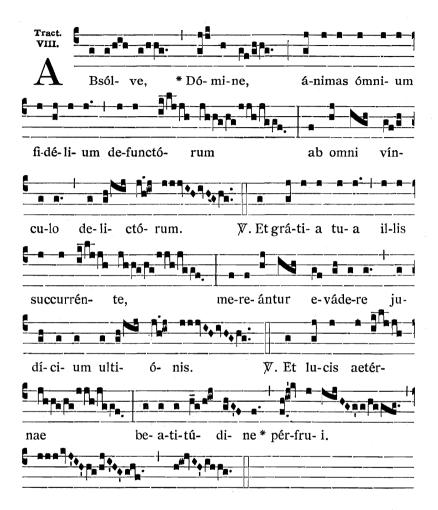




See also the following examples:



Tract Absolve of the Requiem Mass



## REMARKS ON SOME SPECIAL SIGNS

38. The Bars

In Gregorian chant the bars are not bars of measure. They are really signs of musical punctuation, and, as such, correspond with certain breaks calling for breathing, to a greater or lesser extent according to the case at hand. (See the English-language Gregorian Review of May-June, 1954, p. 33)

The quarter-bar generally indicates the end of an incise and determines a slight respiration which often takes an optional character, but which, in any case, must be taken from the value of the preceding note.



The half-bar generally indicates the end of a member and calls for an obligatory breath, also taken from the value of the preceding note.



The full bar indicates the end of a phrase which is expressed by a slight broadening of the movement. The note which precedes this bar and which is always dotted is held for its full two counts. Breath



at the full bar is therefore taken during the rest equal to one eighth note (one count) after the bar in question, providing that the note which follows this bar carries no ictus:



On the other hand, this breath is taken on a rest equal to a quarter-

note (two counts) before the bar, should the note which follows the bar fall on an ictus



## THEREFORE:

At every full bar there will be one ictus which falls on the silent rest. After the full bar, the movement is picked up again a tempo.

The double bar indicates the end of a period, expressed by a retard proportional to the importance and the character of the piece being sung. This double bar also indicates the places in antiphonal pieces where there is a change of choir.



The comma ? is only an optional sign for breathing taken from the preceding note.

The minimum pause which sets apart in certain cases two incises or two parts of the same incise, is indicated by a horizontal episma which in this case calls for a cadence of wholly secondary important, without breath.



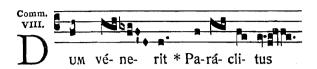
39. The flat is the only chromatic alteration used in Gregorian notation, and affects, when used, only the note B, or ti.

## "The B-flat holds good:

"1) up to a natural sign: in the Gradual of the Seventeenth Sunday after Pentecost, at the word *Domini*, the flat of the first syllable is cancelled by the natural of the last.



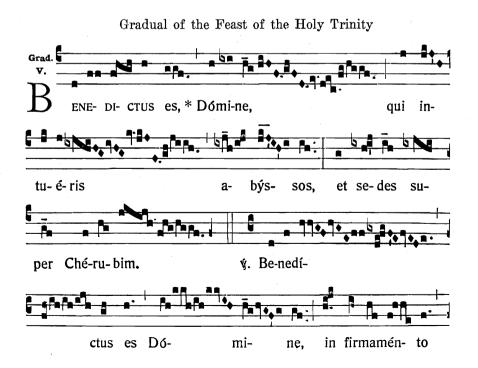
"2) to the end of the word: in the Communion of the Fourth Sunday after Easter, the B of ra becomes natural after the B-flat of ne because we pass here from one word to another.

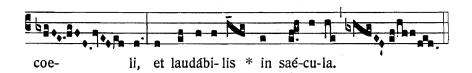


"3) up to a sign of subdivision: (a bar, half-bar or quarter-bar) in the Alleluia of the First Sunday of Advent at the word tuum, the quarter-bar eliminates the effect of the B-flat on the same syllable." (P. Carraz)



See the following examples for use of the flat:





40. The number placed at the beginning of a Gregorian piece indicates the mode of its final cadence, and in pieces accompanied by psalmody, the psalm tone which follows the piece.

41. The guide-note;

- a) when placed just to the right of the clef at the beginning of the line indicates the dominant of the mode (in certain editions only);
- b) when placed at the end of the staff, indicates the note which comes at the beginning of the following line;
- c) when placed before a change of clef in the course of certain pieces, indicates the pitch of the first note to be sung under the new clef.
  - 42. The asterisk or star indicates:
  - a) the end of the intonation by a soloist or group of cantors;
- b) the point at which the choir joins in the singing of the end of the ornate versets;
- c) the points of alternation of the two choirs in developed melismas (for example, the final *Kyrie* of Mass IX);
  - d) the rest at the mediant in psalmody.

The double asterisk indicates the place at which the whole choir sings together after the alternation of the two groups noted above.

The letters 1) ij signify that the fragment which precedes them is to be sung two or three times successively (according to the number of these letters, which are the Roman numerals for such repetitions).

2)  $e^{c}u^{c}o^{c}u^{m}a^{m}e$  represent the vowels of the words saeculorum amen, at the end of Introit psalms or Vesper antiphons,

to show the adaptation of these words to the termination of the versets.

Titles of the Masses of the Kyriale. These are remnants of the accretions of words introduced to the long melismas (ornamental vocalises) of the Kyries so named, called for this reason "stuffed Kyries" which were very much in favor in the middle ages. These are also known as tropes. The best known is the Kyrie "Fons bonitatis."

The reason given for this practice was that the people remembered the long vocalises of the Kyries with difficulty; therefore they were reduced to a syllabism which had no small influence on the decadence of the original rhythm and, consequently, on that of the whole body of chant itself.

Chronological indications. These numerals giving indications such as fourteenth century, eleventh century, etc. (XIV c., XI c.) at the upper right corner of each piece in the Kyriale, do not refer to the time of composition of the piece in question, but only to the date of the manuscripts from which the version reproduced by the Vatican Edition has been taken.

[Editor's note: Therefore these numbers can aid us in two ways. They can, firstly, tell us how late the sources are for the pieces as they now appear, thus warning us against assuming that research is definitive in the case of those with only late sources, and secondly, they can tell us which of the pieces have the oldest written tradition according to well-established manuscript sources. Many of these numbers are out-of-date, of course, as regards recent research and studies.]

## N.B.

This "Graded Study of Gregorian Notation" cannot be considered to be exhaustive. A complete exposition would set forth paleographic studies which there can be no question of undertaking in the limits of this volume. It is enough at this stage of study that the student be able to read in the text of the Vatican edition such as it is today in practical use, the indispensable indications for a unified execution, correctly and esthetically carried out. The student may be given to understand from this point, however, that the Vatican transcription contains a number of errors: there are false distrophas, pressus, scandicus, etc., which only trained persons can uncover after reference to the manuscripts.

#### CHAPTER TWO

## BASIC NOTIONS ON THE COMPOUND BEAT AND THE ICTUS

- 43. Throughout the entire musical phrase, regardless of what form it may take, the rhythmic combinations, even the most complex, may be always reduced in final analysis to binary and ternary groupings.
- 44. In the musical forms of rhythm known as measured music, these groupings usually proceed by regular binary or regular ternary movement.
- 45. In those forms of rhythm called *free*, in particular that of Gregorian chant, these groupings follow one another in irregular order, thus creating a very supple line.

On the basis of this rhythmic freedom there must be no conclusions made rashly as to the caprice or arbitrariness of the performance. Regardless of whether the rhythmic organization of music be measured or free, it obeys certain fundamental axioms which we shall not go into at this time.

What is important for us now, in keeping everything aligned on a strictly practical plane, is this:

46. Each of these binary or ternary divisions forms what is known in Gregorian chant as a compound beat, a little measure, made up of two or three simple beats (whether distinctly heard or not). The first simple beat of this "little measure" carries the rhythmic ictus for which the sign, when it must be indicated, is the vertical episema of Solesmes:



The ictus does not call for necessarily either the lengthening or the emphasis of the note or syllable which it effects. It simply clarifies the function of this note or syllable in the elementary rhythm and

determines the place which it occupies in the measure of which it is the first beat.

47. It follows, therefore, that if one transcribes a Gregorian melody to modern notation, using as a basis the eighth note for each simple beat, one will obtain a succession (regular or irregular) of 2/8 or 3/8 measures, and the bar of each measure will be placed *immediately* before the ictic note of each of them, in the light of what we have just said.





48. Thus in Gregorian chant, during the preparatory studies of a piece, the measure is beaten just as it is in modern music (two or three-beat patterns), and it is necessary that this operation of grouping the simple beats become progressively automatic, making only one unified process with the reading of the melody itself.

(Therefore it will now be better understood that we made certain allusions in earlier paragraphs regarding certain neumes and repercussions).

# 49. RULES FOR THE DISTRIBUTION OF THE ICTUSES IN ORNATE CHANTS

The ictus is carried by all notes that:

- 1) are marked with a vertical episema;
- 2) are long, regardless of their formation:
  - a) dotted notes,
  - b) first note of distrophas or tristrophas such as they are found in the Vatican edition,
  - c) first note of the pressus,
  - d) the note immediately preceding the quilisma,
  - e) the initial punctum of disaggregate neumes,

- 3) are the *first notes of neumes*, unless they are *immediately* followed or preceded by a note carrying a vertical episema.
- 4) are the *culminating virga* of melodic groups, whether it should come at the middle areas of these groups or at the end.
- 50. These rules, which permit of no exceptions, take effect in the preferential order given above (Rule 1 sets aside Rule 2; Rule 2 sets aside Rule 3, etc.).

Every ictus not located by the application of one of the rules noted above has its place determined "by deduction," that is, by binary or ternary subdivision of the simple beats falling between two known ictuses.

N.B. The place of the ictus in syllabic chants follows special rules which will be studied later on.

51. Oral exercise of counting:

Before beginning the following exercises, re-read page 76 the paragraphs regarding the meaning of the bars, because of the rests which must be introduced in the counting at the full bars.

Work the following pieces out in the following manner:

- 1) sing the syllable names of the notes (sol-fa system) while beating the measure, then
- 2) sing the count (one-two, one-two-three) to the correct pitches while beating the measure.

# General $^1$

- \*Antiphon Miserere of Compline
- \*Hymn Te lucis (Pentecost and Blessed Virgin)
- \*Gloria and Agnus IX
- \*Asperges me
- \*Gloria XIII (omitting Jesu Christe and Amen)
- \*Kyrie XI
- \*Communion Exit Sermo

Benedicamus of First Vespers of Solemn Feasts Gloria V

1. Compositions marked with an asterisk may be found in this book through consultation of the Index. Compositions not so marked are in the Liber Usualis; they are given as additional study material.

#### Pressus

- \*Kyrie IV, \*XII, and \*XVII (Sixth mode)
  \*Sanctus II and \*XI
- \*Sanctus and Agnus XVII

# Repercussions

- \*Introit Oculi mei (omitting intonation, words in me, and the psalm.)
- \*Offertory Ad to Domine (omitting meus.)
- \*Offertory \*Deus tu convertens

# Quilisma

- \*Gloria IV
- \*Sanctus V

## Oriscus

## At the unison

# On the step above

- \*Kyrie IX
- \*Sanctus XI

- \*Alleluia: Vidimus stellam
- \*Hvmn Salutis humanae Sator
- \*Alleluia: Veni Domine
- \*Introit Puer natus est
- \*Communion Viderunt omnes
- \*Communion Memento
- \*Kyrie XI ad libitum
- \*Agnus III

## Neumes similar to the salicus

- \*Introit Rorate
- \*Introit Da pacem
- \*Offertory Jubilate
- \*Hymn Šacris Solemnis
- \*Sanctus I

# Disaggregate (Praepunctis) neumes

- \*Vidi aquam
- \*Introit Ad te levavi

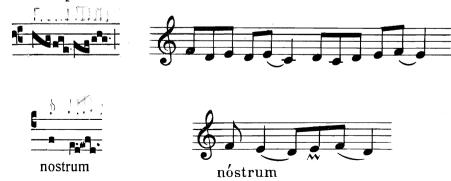
## WRITTEN EXERCISES

52. The student should make transcriptions and neumatic analysis and counting tables according to the following examples. He should work with utmost clarity and precision in his script, and he should thoroughly examine his work for care and accuracy.

# Neumatic analysis and counting. Vidi aquam excerpts:

Syllables	N E U ME S	Counting	Rules for the ictus
a	podatus	1-2	3
la-	punctum	3	
	punction + podatus (pressus)	1-2-1	2- deduction
te-	punctum	2	
re	elivis	1-2	3
dex-	disaggregate torculus resupinus	1-2	2(e)
		1-2	deduction
tro,	doubly dotted clivis	1-2-1-2	2 - 2
al-	punctum	3	•
le-	torculus resupinus	1-2-1-2	3- deduction
lu-	podatus	1-2	3
<i>*</i>	porrectus	1-2	3
ia	doubly dotted clivis	1-2-1-2	2 - 2
om-	quilismatic scandicus, followed by	1-2-1	2-(3)-1
	an oriscus on the next step above	2	
nes	punctum	11	1
a-	distropha	1-2	2 (3)
	clivis (ictic repercussion)	1-2	3
qua	podatus	1-2	3
	etc		

# Transcription into modern notation:



#### CHAPTER THREE

## THE STUDY OF RHYTHM

#### **PRELIMINARIES**

#### A. Classification of the Arts

- 53. The arts are divided into two groups:
  - a) the arts of repose which are: architecture sculpture painting
  - b) the arts of movement which are:
     music
     poetry
     dance
- 54. The arts of repose are developed in *space*; that of music, as well as poetry, in *time*; that of dance in both *space* and time.
- 55. The laws which govern the arts of *repose*, immobile by definition, are obviously different from those which control the arts of movement. Both, however, are subject to a definite *order*, which results from the application to each of them of precise rules whose ensemble constitutes, for each form of art, what we call its *technique*.

# B. Order and Proportion in the Arts

56. As a consequence of the order which, in fitting the details to the whole, gives them both their proper character and their esthetic value, the arts are thus brought under the influence of what we call *rhythm*, that is, the principle under the action of which the order and roles of the parts is established, as well as the order of the parts with the whole.

As a result, the rhythm, taken in its general sense, is *universal* and acts on all things in the domain of art, in time as in space. (LeGuennant, *Precis of Gregorian Rhythmics*, Nos. 49 to 52 and corresponding notes.)

Nevertheless, the word *rhythm*, in its actually accepted sense, really is applied only to the arts of movement: music, poetry and dance (*Precis of Gregorian Rhythmics*, No. 52).

## C. The Arts of Repose

59. The arts of repose are familiar to us in their synthesized form, that is, we perceive them first of all in their ensemble (a cathedral, for example), and if we wish to arrive at an understanding of their structure, we must call upon the methods of analysis, that is, the system of seeing the whole in its separate elements in order to fulfill our over-all perception by the knowledge of the finer points.

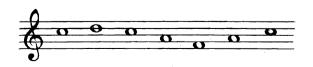
## D. The Arts of Movement

58. The arts of *movement*, on the other hand, are familiar to us from the outset in an analytical type of contact. Each detail is recorded on our consciousness in turn, and it is our intelligence which, aided by memory, then makes as an after-function the vitally necessary work of *recomposition* and coordination of the various separate aspects perceived by our senses: the ear, if it is a matter of music or poetry; the eye, if the subject is dance.<sup>1</sup>

#### E. Matter and Form

- 59. Every work of art is made up of two elements:
- a) matter, differing according to the arts and endowed with certain qualities which are proper to it as matter, but which amounts to nothing in itself, esthetically speaking;
- b) and form, it, too, differing according to the arts... and even infinitely variable within each particular art... which results from the means employed by the artist to adapt the potentialities of matter to a determined aim, according to the ideal he conceives (*Precis of Gregorian Rhythmics*, introduction, paragraph two.)
- 60. Thus it is that form can vary whereas matter remains the same.

Here is a very simple example which we shall borrow from the art of music in order to demonstrate this:



1. The operation of this recomposition is, moreover, precisely the same whether or not the musical work or poem instead of being heard, as is generally the case, is merely read.

If we take these notes as the matter, we can present them in several ways, among which might be these:



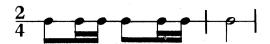
Obviously, in changing form the theme changes in character.

AN IMPORTANT NOTE: It should be noted at this point with utmost concentration that musical rhythm firstly and primarily regullates equal or unequal beats (that is, values of similar or dissimilar length), and that the pitches (that is, the purely melodic elements of the form) are here of a lesser importance in a certain sense. (See Precis of Gregorian Rhythmics, Nos. 91 to 94.)

The two following examples, differing melodically, are absolutely the same *rhythmically*:



and their rhythmic form is this:



Melodic form and rhythmic form are thus two separate things, not necessarily opposed to one another, but quite distinct. (Precis, No. 95.)

This, moreover, is why the study of the beat in musical rhythmics is of exceptional importance.

Here are the definitions which the student must bear constantly in mind:

## DEFINITION OF THE BEAT IN GENERAL:

The beat is the measure of duration. In music the word beat, taken in its generally accepted sense, signifies a certain fraction of duration, applied to the emission of a sound or a group of sounds.

Depending on whether the divisions of length are more or less widely spaced in relationship to each other... and we have thousands of examples to go by . . . the beats flow along at various speeds. The metronome illustrates the principle.

Under this subject then come two specific definitions:

## THE SIMPLE BEAT:

A beat is called *simple* when it is the smallest possible division of duration within a given system. The *simple* beat represents an indivisible fraction of length-value, that is, a value which cannot be divided into smaller units.

# THE COMPOUND BEAT:

The compound beat is, by its very terminology, compounded of at least two simple beats, the first of which carries the rhythmic fall, the measuring point, the ictus. The second of these two beats, and the third, if there is a third, is non-ictic.

The final stage of study is represented by the

#### RHYTHMIC BEAT:

A rhythmic beat is either the arsic or thetic phase of any rhythm whatsoever. Thus it is that the arsis and thesis of a simple monoictic elementary rhythm, however simple each may be, will be considered as rhythmic beats. It is not the structure of the beat which we are considering, but simply the role of this beat in the rhythmic synthesis. Thus a beat becomes "rhythmic" at the moment that one assigns it a function (arsis or thesis) in the greater rhythm of the incise.

## F. Matter in Gregorian Chant

61. With rare exceptions (the melismas and vocalises, for example) Gregorian chant is made up of the permanent association of a melody and text, both drawn along in the same movement.

The *matter* in this case is thus the sound which is presented under two aspects, one purely *musical* (elements of the melodic line), the other *verbal* (the vowels which play a part in the formation of syllables).

- 62. The differences which can exist between the sounds (or syllables) may be classified in four types of phenomenon:
  - a) The quantitative order which includes all the variations of length; this is the most important;
  - b) The *dynamic* order which includes all the variations of *intensity* (loudness or softness);
  - c) The *melodic* order which includes all variations of *pitch* (various intervals);
  - d) The *phonetic* order which includes all the variations of *timbres* (tone colors), in particular the vowels, where vocal music is concerned.

# F. Matter and Form in Gregorian Chant

63. It is important to note that these variations above, being of a physical order, belong to matter as such.

It is rhythm, which in dominating these variations, will exert, throughout them all, its action on matter and give it its form.

We must, therefore, without further delay, clarify the nature of rhythm, and in order to simplify and make these things clearer, we shall not concern ourselves at the moment with anything but the purely musical or melodic rhythm.

#### MUSICAL RHYTHM

- 64. Since music is an art of movement, rhythm has as its object the establishing of a definite order, a precise order, between the aspects of this movement.
  - 65. What, then, is this movement?
  - a) Movement, in general, is the cessation of repose and immobility.
  - b) A movement ordinarily takes place between two periods of repose and begins with an impulse, and the smallest movement possible must therefore include at least one impulse and one repose.

We call the impulse ARSIS

and the repose THESIS1

c) The movement is neither the arsis alone, nor the thesis alone, but the two in intimate dependence upon each other, in such a fashion that the thesis is the natural result of the arsis and that since the movement has two aspects, both are indispensable to its existence as a movement (Precis of Gregorian Rhythmics, No. 140).

# A. Definition of Musical Rhythm

- 66. Musical rhythm is defined essentially, therefore, by the relationship of an initial impulse with a final repose. It is the constant mark of any rhythmic form, or, in other terms, the principle in virtue
- 1. These two terms are borrowed from the Greeks. We use them with simply their initials to designate (  $\alpha\rho\sigma\iota\sigma$   $\vartheta\varepsilon\sigma\iota\sigma$  ) in our examples the phases of rhythm:

Capital letters:  $\Lambda \Theta$  when the arses and theses are compound;

Small letters:  $\alpha \emptyset$  when the arses and theses are *elementary*. The student should note that many printed books use the Roman letters A and T and their lower case counterparts a and t because of the difficulties sometimes encountered in securing Greek type for printing.

of which an individual rhythm exists and enjoys as such the perfection indispensable to any regulated movement. (Precis, Nos. 78, 79, 80.)

A rhythm is thus a synthesis (*Precis*, No. 57), that is, a unit, a group made up of at least one arsis progressing to a thesis on which it is fulfilled and terminated:



It is well to note that this relationship is not necessarily direct or immediate.

67. In the rhythms we call *simple*, we go directly and without transition from the initial impulse to the final repose:



68. In the rhythms we call compound, on the contrary, a certain number of intermediate phases fall between the initial impulse and the final repose. These phases can be either the development of the initial impulse or the preparation of the final repose:



69. In any case, the initial impulse and the final repose remain the two main supports, the two focal points of the movement considered in its synthesis, or, if one prefers, in its perfect state. (*Precis of Gregorian Rhythmics*, No. 81 to 84 and 149 to 153)

Let us draw some comparisons:

A ball which is thrown and which falls to the ground in a muddy spot, sticking there, completes a *simple* movement (or rhythm).

1. The word perfection is taken here in its etymological sense: completed, terminated, including all that is necessary to it.

A ball which, on the contrary, bounces after being thrown, carries out, one after the other, a series of simple movements. As a result, the movement of the whole sequence (or rhythm) becomes *compound*.

We may also borrow a comparison from the arts of repose and say that a simple rhythm can be expressed in a bridge of one arch, and a compound rhythm by a bridge with several arches.

# B. Classification of the Rhythmic Forms

70. Rhythm thus has only two forms of existence:

it is simple or it is compound

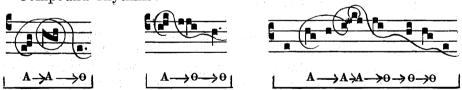
A rhythm is called *simple* when it has a single arsis and a single thesis, regardless of the internal organization of this arsis or this thesis:

Simple rhythms:



A rhythm is called compound when it has more than one arsis OR more than one thesis, or more than one of each:

Compound rhythms:\*



## C. Musical Movement

71. It is very important that we understand the specific nature of musical movement.

We have said previously that movement was the disrupting of repose, of immobility.

<sup>\*</sup> For the use of capital and lower case letters in these examples, see the footnote, Page 91.

We are in the habit of thinking of movement only in terms of operations of transfer, that is, change of position in space, the change of location of a moveable material whose movements are apparent to us through our senses, and in particular by sight (movements from place to place in full view): a man walking, a train running on its track, a bouncing ball, the swing of a pendulum, the undulation of the waves of the sea, etc.

- 72. In reality, this notion of movement is too narrow, and ancient scholars, who perceived things more accurately than we on this point, considered that there was movement whenever a change of any kind whatsoever occurred in the world about them. Aristoxenus of Tarentum (Fourth century B.C.) wrote in this regard:
- "The voice moves when it sings, just as does the body when it walks or dances".

Dom Mocquereau, moreover, in commenting on this text adds:

- "Movement in sound fulfills all the conditions of a true movement, which is, definitely, nothing more nor less than the passing from one note to another, from a short note to a long, etc. . . . "
- 73. Musical movement is thus a *real* movement, although it is analogous in comparison with movements from place to place (*Precis*, Nos. 64 to 67) because it is the result of the variations which take place in a matter which, although invisible, imponderable and measureless, is none-the-less in existence (it is the air in vibration), since it reaches us through the sense of hearing.
- 74. Nevertheless, musical movement, because of its very intangibility, is a subtle affair, and it is impossible to understand it fully, and particularly to feel it, without comparing it with bodily movements and gestures. This is the very principle of Solesmes chironomy which we shall adapt without further ado to some practical exercises.

It follows, then, that the terms used to express the various phases of musical movement (impulse, repose; beginning point, ending point, etc.) are quite logical and cannot give rise to any confusion.

#### RHYTHM AND THE PHYSICAL VARIATIONS OF MATTER

75. Musical movement is thus the result of *the changes*, the variations, which are produced in the physical matter of sound, and which we have grouped in four categories of phenomena (See No. 62).

- 76. Rhythm, in turn, enters into this movement in order to assign functions to its phases, that is, to attribute to each of these changes a value of impulse or repose.
- 77. To assign functions, to organize a movement is nothing more nor less than to give a *role* of precise nature to each of the elements which make it up, whether this be in creating (composing) it or in actually re-creating it in performance. (Precis No. 80, p. 28)

The whole rhythmic problem centers on this idea.

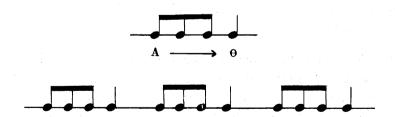
# I. Rhythm and phonetic order

78. In Gregorian chant phonetic variations ought to be considered as the least important, as the word-rhythm (in *recto tono* recitations, for example) rests primarily on the relationship between accented syllables which are relatively strong and non-accented syllables which are weak. (Precis No. 86 and following. See also Note I, p. 28)

## II. Rhythm and the melodic order

79. Rhythm does not necessarily have to have melody either for mere existence or for existence in perfect form. Primitive cultures (which often exhibit a highly developed rhythmic sense) organize noises and not tones. Certain orchestral instruments do the same thing (drum, triangle, cymbal, etc.)

If, for example, we beat the following combination over and over:



we get a series of perfectly defined rhythms in which the character of *impulse* belongs to the eighth-notes, which have more active feeling than the quarters. This rhythm is the basis of the themes of the first movement of Beethoven's Fifth Symphony.

If we add a melody to a rhythm originally made up of simple blows or noises, the rhythm becomes *musical*, but since the melody is

not really essential to it, this explains why one rhythm can be adapted to melodic forms which are completely different from each other:











Practically, then, we should think of the rhythm as *independent* from the melody. This does not mean to say that there are not certain cases when the melodic form blends completely with the rhythmic form, but we are concerned at this point merely with the independence of the two.

# III. Rhythm and the dynamic order

80. What we are prone to call "accent" is the stress of a sound (or group of sounds) which gives it an intensive value superior to that of the sounds (or group of sounds) around it.

Solfege treatises sometimes give the impression that this accent has a set place by locating it on the first beat of the measure. This is reference to what we call the *strong beat*. Unfortunately, this theory of the strong beat is contradicted by facts. Although it does apply to certain compositions of exclusively metric character, there is no support for its existence in a large number of cases where the rhythmic organization is and remains independent of the restriction effected by the measure bars.

81. In reality, the more the forms of art are raised in the esthetic scale of values, the more the accent tends to escape the tyranny of the bar line (which in Gregorian chant would precede the ictic note if it were to be expressed in modern notation. See chapter one, No. 47)

It follows, therefore, that the intensity, which is nothing else than the culminating point, the pole of a current of accentuation which covers the whole rhythmic form while giving it life, belongs actually neither to the arsis nor the thesis.

<sup>1.</sup> This is a good point at which to recall the important remark which follows No. 60 relative to the independence of the rhythmic form in regard to the melodic form.

82. In the following example, the pole is placed on the arsis: (G major Sonata of Mozart)



In this case, on the contrary, the pole falls on the thesis: (Unfinished Symphony of Shubert)



Here, finally, is a fragment in which the accent falls alternately on the thesis and the arsis: (F major Sonata of Beethoven)



The placement of the pole depends on exclusively musical conditions, for example, according to whether the same rhythm is presented legato or staccato:



In a sung text it can also depend on the idiom of the language, as can be seen from an examination of the following rhythm which remains the same in spite of the placement of the tonic accent in the languages used. (This tonic accent is given in capital letters).



Thus the rhythmic form is independent as to its organization (that is, the arrangement of the arses and theses) from dynamic variations of the study of rhythm, whether we are considering Gregorian chant or any music whatsoever.

# IV. Rhythm and quantity

83. It is obvious that musical rhythm cannot be independent of phenomena of the quantitative type, as a sound could not exist except as within some given length.

Rhythm is thus linked to the quantitative order above and beyond the matter of sound which it shapes, because of the *temporal* character of this very matter.

84. This necessary link between the musical rhythm and the quantitative order should not be considered, however, except as a general point of view. In regard to the variations of length, what we call the *beat*, rhythm moves with complete liberty, and it suffices to examine any Gregorian chant whatsoever to verify this mobility of the rhythmic forms, which are in a perpetual state of modification, as being the normal rule.

#### THE NOTION OF BEAT IN THE STUDY OF RHYTHMICS

- 85. Regarding the beat in rhythmics we must have a very precise and very clear concept.
- 86. We give the term *beat* not to the length of the note-value, as this term is too general, but to a certain segment of time-value, a precise and definite segment which presupposes on our part the perception (visual or aural) of its beginning and its end.

Two measuring points are thus necessary for our understanding of the value of one beat.

(Between two ticks of the metronome, for example, lies the value of one beat. It is the same thing in a watch when the second-hand passes from one mark on the dial to the next, etc. . . .)

# 87. A beat is either simple or compound.1

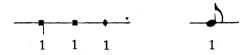
A beat is called *simple* when it *cannot be divided into smaller units*. This is the case of the Gregorian simple beat which has been considered conventionally and according to an unbroken tradition as *indivisible*.

1. We have already alluded to this in No. 46. It will be noted that the terms "simple" and "compound" are here used in a different sense than that given in solfege books, in which they are applied to the measure according to whether the beats are divisible by two or by three.

The results of this indivisibility are:

- a) that the simple beat cannot be considered as being concerned with any but the emission of a *single sound* and,
- b) that all the simple beats of a Gregorian melody are isochronic, that is, equal in length.

In Gregorian notation the simple beat is figured as a *virga* or *punctum* (square or diamond-shaped). We *conventionally* give it the form of an eighth-note in transcription into modern notation of a Gregorian melody:



88. The compound beat, on the contrary, is by definition divisible, that is, made up of more than one simple beat:

two at the very least, and this forms the binary compound beat:



three at the most, and this forms the ternary compound beat:\*



89. The compound beat is of very great importance. Actually it is on this compound beat that from a certain point onward the entire rhythmic synthesis is erected. Thus we must understand the concept thoroughly.

We shall see later on

- a) how it is formed,
- b) what its technical organization is.
- 1. The student should be advised that the dotted quarter-note given here is merely an illustration of comparative values, and is never used in transcribing chant. For the correct transcription of the tristropha, see page 102, the first examples.

For the moment it is enough that we understand what in amounts to *materially*, and nothing is easier to see if we compare it with the simple beat.

90. Firstly, in comparison with the simple beat which is called unary because it is indivisible and which for this reason represents in Gregorian chant the unit of beat<sup>1</sup> on which is the basis of all the other variations of length in the all-over rhythm, the compound beats are values of long duration.

The fact that they are binary or ternary and thus unequal among themselves alters nothing of this *long* nature which is common to all of them and which makes them the opposites, consequently, of the simple beat which is represented for us by the *eighth note*.

In comparison with the simple beat, therefore:

the binary compound beat is twice as long:

and the ternary compound beat is three times as long:

**東南南** 

Thus it is a matter of a precise rhythmic proportion.

91. Secondly, we must take careful note of this idea of relative length which is essential to the compound beat.

The simple beats which they contain are not independent from each other, but are intimately bound together and form a sort of block, a *unit* which we call, of course, the *compound beat*.

- 92. Thirdly, however, the compound beats do not always appear under the same forms. They can be condensed, articulated or mixed.
- 1. It is well to say "in Gregorian chant," for we must conclude that the unit of beat is always and necessarily simple. It is not such in modern music. When a composer writes at the beginning of his score \$\int\_{\alpha} \end{a} 60\$, for example, or \$\int\_{\alpha} 72\$, he bases the movement of his piece on the value of an eighth-note which is, in fact, divisible.

his piece on the value of an eighth-note which is, in fact, divisible.

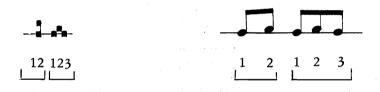
Although Gregorian chant depends on an indivisible unit of beat, the time-value of this unit is borrowed from the language of words: a syllable is short and indivisible by definition (Precis, No. 28 and corresponding notes). Thus it is a question here of conditions which are peculiar to Gregorian chant, and they cease to be valid for polyphony, were in its primitive extens.

even in its primitive state.

a) If the simple beats are not distinctly expressed and consequently form a long note equal to the sum of their respective lengths, we say that the compound beat is condensed (or blended):



b) If, on the other hand, the long note which forms the compound beat is broken into separate notes, and if the simple beats are *distinctly expressed*, giving a melodic form to the compound beat, we call it *articulated*:



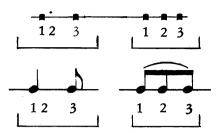
c) If, lastly, the articulation of the compound beat is only partial, the compound beat is called *mixed*;



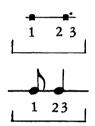
The first two combinations are applicable to either binary or ternary compound beats.

It is obvious, however, that the *mixed* type can only apply to a *ternary* compound beat. This combination is *always* found, moreover, in the form we have given it in (c) above, and this is what shows that

an isolated simple beat between two compound beats always belongs to the first of these:



(Let us note in passing that the order of the time-values such as they are given in (c) cannot be reversed, and that the combination below is not a compound beat, but actually a rhythm. This is one of the forms of the fundamental rhythmic cell which we shall study soon:)



93. Fourthly, each of these beats (unary, binary or ternary) constituting a value of *definite* length, it follows that they are all relatively equal or unequal.

# Thus there is equality:

- a) between all simple beats,
- b) between all binary compound beats
- c) between all ternary compound beats

# and there is, on the other hand, inequality:

- a) between the *simple* beats and ternary or binary *compound* beats
- b) between binary compound beats and ternary compound beats.
- 94. Fifthly, on these variations of length, equal or unequal, on these beats which, as we have said, fall as they may, short or long under the action of the rhythm, this rhythm acts in perfect freedom,

although always in a uniform manner, that is, by establishing a proportion between any two of the elements which come into consideration:

Simple beats with other simple beats,

Simple beats with compound beats,

Compound beats with simple beats,

Compound beats with other compound beats.

This produces a whole series of *rhythmic forms* or combinations, often very extensive, and by this very fact, complex.

In art as in biology, however, there is no such thing as spontaneous generation. All the forms of art without exception, even the most complicated in aspect, derive from an embryonic form which is not only the smallest rhythm possible, but also the smallest rhythm conceivable, and for this reason we call it the *fundamental rhythmic cell*.

### THE FUNDAMENTAL RHYTHMIC CELL

95. There is only one kind of fundamental rhythmic cell (abbreviated as F.R.C.).

It is found, however, in two different forms, according to whether the beats (or note-values) arranged in rhythmic order are:

## A) unequal:



 $a \rightarrow \theta$ 

or

B) equal:



These values here are reductible to the two basic types of quantitative variants, because of the undeveloped status of the F.R.C.,

namely the eighth note and the quarter:

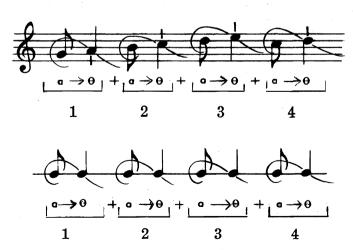


96. If we establish a relationship between a short note and a long one as in (A), a definite rhythmic form based on the inequality of the beat-lengths forces itself on our consciousness. From the very fact that the short note lasts less time than the long one, the short note has more movement and is quicker than the long one. In comparison with the long note, the short one thus becomes the *impulse*, the *arsis* of the rhythm.

"The short note", says Dom Gajard, "since it is short, is in a state of beginning, of impulse, of tending toward something, and on the other hand, the long note, since it is long, indicates a suspension of the movement, the point of arrival, the repose, the ceasing of the movement which had been begun. . . . Thus there is a relationship between the short note and the long one which binds them indissolubly together. They attract and complement each other."

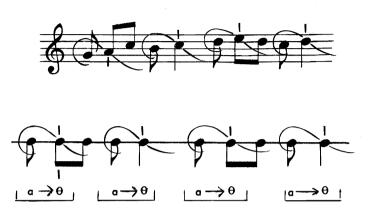
Now, then, it is this relationship which essentially constitutes the rhythm and which is the determining cause of any rhythmic form. We have noted this previously (No. 66).

97. It will be easy to see in singing the example below that it is made up of four fundamental rhythmic cells of Type A:



Such a rhythm is indisputable, and moreover, nobody would dream of objecting to it. We have here evidence, something which obliges us to recognize it as a true rhythmic axiom.

This is the form which Dom Mocquereau calls "primordial and natural rhythm", and it is to this also that Vincent d'Indy refers when he writes that it is made up of *light beats* (the short notes) and *heavy beats* (the long notes).



In analyzing this rhythm we can see that it is ternary: one simple beat on the arsis and two simple beats on the thesis.

If we go no further in the examination of this combination, however, the whole synthesis is in danger of being undermined.

In the rhythm above, considered from the angle of its formal unity, there are not actually three beats, but only two beats of unequal rhythmic value, thus:

- a) one simple beat (a short note) on the arsis
- b) one compound beat of binary form (a long note) on the thesis

In any case, as a result the end of the movement coincides with the thetic ictus, and when the long note is not a single tone, but two articulated simple beats, the final simple beat is nothing but the prolongation of the thetic cadence.

Rhythmically, then, all the examples of No. 97 are identical. Only the melodic form of the thesis differentiates between them, and this is secondary in importance in the synthesis.

98. Let us re-examine the preceding melodic fragment, substituting eighth notes for quarters in such a way as to bring into relation-

ship with each other only values of equal length:



In contrast with the previous example, this rhythm is analytically binary: one simple beat on the arsis, one simple beat on the thesis.

As for the synthesis, it will include two rhythmically equal beats, each a short note.

It will suffice to sing through this fragment, or better, to sing both this and the preceding fragment in turn, in order to verify that in the second example by comparison with the first there is no really essential modification.

The movement in the second example is more brisk and rapid. It proceeds in *regular* steps as a man does when he walks, or a ball when it bounces.

But this is a difference on a minor and unessential point.

99. It may be objected that in a succession of short notes nothing from the purely quantitative point of view marks the arsic or thetic function of any of them, and as a result such a series of notes is rhythmically vague.

This is true. The objection, however, while well-founded in theory, is of no practical value, for in such a case the rhythm is always precise as far as chant is concerned because of a foreign element which is not concerned with the quantitative order . . . an indication furnished by the text, for example . . . which will permit us to determine the movement's order.

- 100. Let us conclude, then, that:
- a) the fundamental rhythmic cell is found in two states of being:

1) a short note in relationship with the long one,



2) and a short note in relationship with another short one:



- b) in each of these types, the arsis is elementary (unary). This is very important, and it should be carefully noted.
- c) these two types differ from each other as regards the thesis, which is binary in (A) and elementary in (B).
- d) in each of these types the ictus belongs to the *thesis*, about which we have already said a few words and to which we shall return later in order to clarify its function.
- e) every ictus encountered in chant thus indicates a thesis of the fundamental rhythmic cell, and nothing is easier, consequently, than the reduction of any melodic fragment to its constituent cells:





#### CONCLUSIONS

101. The relationships of rhythm with the four orders of phenomena of which we have just spoken cannot be studied separately, as we have just done, except by an analytical process in the interests of teaching.

Actually, matters work out somewhat differently in practice.

- 102. Firstly, it is obvious that the rhythm cannot operate on a series of sounds which show no variations among them of *quantitative*, *intensive*, *melodic* or *phonetic* order. Such a succession is indifferent to the action of rhythm and is actually *arhythmic* (from the Greek, meaning "without rhythm"). (See *Precis*, Nos. 127 and 128)
- 103. Secondly, rhythm is independent of these four orders of phenomena in the sense that the rhythmic concept is not bound *exclusively* to any one of them.

There are rhythms with various bases: intensive, melodic, quantitative or phonetic, that is, rhythms in which one of the phenomena is predominant and lends its character to the rhythm as a whole. In such cases we are faced with conditions which hold good for one rhythm in particular and not all rhythm in general.

To qualify the nature of *one* rhythm is quite different from defining "rhythm" in general, clarifying in each case the points which are vital to each concept. What may be true for one particular rhythm may not necessarily hold for *all* rhythm, but there are, as we have seen and shall continue to discover, certain principles in common which are shared by all rhythms.

104. Now, then, the basic concept of a thing cannot be drawn except from those elements which present within it the two characteristics of *permanency* and *consistency*, that is, the qualities which are found 1) at all times, unchanging with time or circumstances and 2) in every case, regardless of the special nature or unique aspect or unusual character of the case at hand.

A table, for example, cannot be defined as having any particular shape for its top (square, round, triangular, etc.), or any certain number of legs. A table is *essentially* a horizontal surface supported by some vertical elements or vertically-acting suspension, and *all* tables of *all* kinds follow this "ideal" concept.

105. The elements of musical rhythm belong to the movement and fall under, as we have already said, the essentials of the relationship between an initial impulse and a concluding repose.

It is thus fitting that we concern ourselves before anything else with the movement, or more precisely, with the order established by rhythm between the impulses and the reposes in order to achieve the synthesis of a movement. It is this unity, this logical relationship bebetween the phases of a movement, which constitutes the rhythm. Anything else, everything else, is integrated with it on a purely ornamental and accessory basis. (*Precis*, Chapters V and VI)

# THE ICTUS IN THE FUNDAMENTAL RHYTHMIC CELL

We have already said that the ictus falls on the *first beat* of binary and ternary compound beats, that is, of the little measures formed by two or three simple beats each (No. 46).

106. Before speaking further of the ictus in the compound beat, however, we must clarify its function in the fundamental rhythmic cell.

As Dom Gajard puts it so well in the preface to the *Precis of Gregorian Rhythmics* so often cited, the rhythm of Gregorian chant "depends quite as completely as regular musical rhythm on the essential and universal law of rhythm, which is that of progressing by a series of steps."

These successive steps, each formed analytically by an impulse and a repose, are nothing more nor less than the fundamental rhythmic cells of which we have written in paragraphs 95 and after.

The ictus falls on their theses. This is why in the reduction of the movement by fundamental rhythmic cells, the words "ictus", "measuring point", "touchpoint" or "thesis" are synonymous.

107. In other words, in the fundamental rhythmic cell, which, we must not forget, is a perfect rhythm, the ictus is exclusively thetic.

The word *ictus* (which is borrowed from Latin) means "blow" or "percussion", and in this regard, until a certain time which is not so far removed from our day (end of the seventeenth century), orchestra conductors or choral directors used to beat the measure, that is, the periodic rhythmic fall, with a long pole which they held vertically and with which they tapped lightly(?) on the platform on which they were standing.

Thus at that time there was a real percussion which for the players or singers was an audible indication of a rhythmic fact, namely, the down-beat of the movement in its elementary progression.

We direct differently today, since we no longer thump out the ictus, but we have kept the word with the meaning which it had for the musicians of other times.

The ictus thus belongs to orderly movement, to *rhythm*. It signifies, we repeat, one of the phases of the movement, and this is always the same in the fundamental rhythmic cell.

Consequently, like rhythm, this cell is independent of the four orders of phenomena of which we have written above, and the ictic note is neither *lengthened* nor necessarily *stressed* under the pretense that its being ictic calls for such treatment. (See No. 46, second subdivision)

### CHAPTER FOUR

### THE COMPOUND BEAT

#### FORMATION OF THE COMPOUND BEATS

108. The sounds which make up a melody are not simply stuck together. Between them exists a link, simultaneously vocal and rhythmic, in which is born the *continuous movement* which is, strictly speaking, the essential element of a melodic line. This is what the Greeks called the *melos*, from which we get the word *melody*.

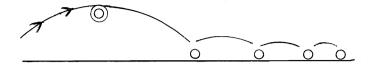
These sounds, whether high or low, short or long, strong or weak, are first grouped in fundamental rhythmic cells. This is the rhythmic synthesis in its *first stage*, lacking which, as we have said, no synthesis exists, and no rhythmic form is conceivable.

109. These fundamental rhythmic cells themselves, however, each formed of a rise and a fall, or an arsis and a thesis, are only analytical phases, the subdivisions of a larger movement in the progression of which they are carried along.

They attract each other and succeed one another by blending with each other in such a way that their independence is henceforth only theoretical, and, on the other hand, the link which binds them is the very requisite of a logically and solidly arranged melodic line.

- 110. Let us make some comparisons.
- a) When we walk from one place to another, we do not cover the entire distance in a single leap. We divide this distance into a certain number of parts proportional to the length of our steps, and it is these successive steps which, overlapping in such a way that the raising of one foot coincides with the lowering of the other, make walking possible and lead us at last from our beginning point to our arrival point, the destination.
- b) In the same way, when a ball bounces, it makes a new upward impulse at the very point of its contact with the ground, and this is

renewed until the energy of the fall is spent, the energy with which it is empowered when it is first thrown:



In the walk of a man, as in the bounce of a ball, there is thus a coincidence at the same point of a descent and a rise, a repose and an impulse. At this point the entire body or the whole mass of the ball rises up to make the next step or bounce. This is so true that when we make a movement of two steps we only make three movements in all, although each of the two steps is analytically made up of two phases, the rise and the fall of the foot.

Thus it goes with the fundamental rhythmic cells in their continuous progression, and it is from the junction of the successive ictuses that we derive what we call the compound beats.

### THE BINARY COMPOUND BEAT

111. Let us look again at the melodic excerpt examined previously:



a) Beginning from a, the rhythm falls back on b, and this is the first rhythmic step:

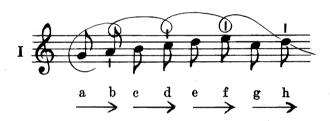


b) But at this same point b the rhythm rises up again and continues its movement in order to cover in a single pulse points b and c

and arrive at d:



c) Then come new reboundings at d and f in order to arrive at the final repose at h. Thanks to the successive spurts of the rhythm, the synthesis, the unity of the general movement which begins on a and closes on h is thus brought about.



112. From these explanations, the following conclusions will quite naturally become obvious to us:

Firstly, that there is only one exclusively thetic ictus in the melodic fragment for which we have just made the rhythmical synthesis, and this is the final ictus at h.

Secondly, the other ictuses, at points b, d and f have a double meaning and as such, play a double role in the economy of the whole.

- a) They are arrival points and thus thetic, by their relationship with what precedes them;
- b) And they are beginning points and thus arsic, by their relationship with what follows them.

They are not one thing to the exclusion of the other. They are both qualities at the same time.

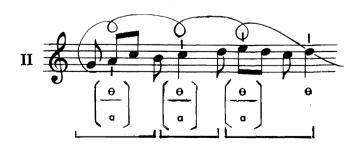
# Definition of the Compound Beat

- 113. What we call the compound beat is the grouping of the sounds included between two consecutive ictuses, a grouping resulting from the reboundings which in being prolonged from ictus to ictus effectively produce a link between the fundamental rhythmic cells, and therefore the separation of these cells is possible only in analysis, not in practice.
- 114. The compound beat is thus a grouping of simple beats, the first of which carries the rhythmic ictus.
- 115. The preceding compound beats are binary, that is, formed of two simple beats, since the fundamental rhythmic cells which form the groups are themselves binary (one short note on the arsis, plus one short note on the thesis).

### THE TERNARY COMPOUND BEAT

116. If, instead of bringing into relationship equal beats as in example 1, the fundamental rhythmic cells set up a relationship between unequal beats (one short note on the arsis plus a long note on the thesis), the compound beats which result from their conjunction on the ictus will be ternary. Their manner of formation, however, will be the same, and their ictuses will also have the double character of arsis and thesis.

In this case the rhythm simply lengthens the step slightly, as a man does sometimes when he walks. The stride made is longer, the time which separates the ictuses is longer, but the mechanics of the operation are exactly the same as in the previous case:

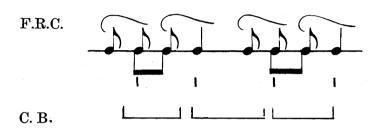


Let us note once more that the long count of the thesis can be either condensed or articulated (No. 97, in fine).

# \*THE COMPOUND BEAT AND THE FUNDAMENTAL RHYTHMIC CELL

T

117. The dependent nature of the compound beats in comparison with the fundamental rhythmic cells of whose junction they are the product is clearly shown by the diagram below:

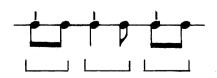


In other words, the compound beats do not come into existence obligatorily, but the conjunction of two fundamental rhythmic cells automatically produces the formation of a compound beat.

### II

118. This dependent character in no way contradicts the unity enjoyed by the compound beat. Its elements form practically "a block, a well-blended whole, arising in a single movement" (Dom Gajard) having its beginning in the initial ictus of the compound beat.

The unity of a compound beat is therefore *real*, even though *derived*. Consequently the compound beat can be distinguished and separated from the fundamental rhythmic cells which have given it birth and can be examined separately with its own characteristics.



<sup>\*</sup>This section is of enormous importance for the continuation of rhythmic studies. For the expansion of notions merely expounded summarily here, see the *Precis*, Chapter XIV.

These characteristics may be summarized basically as these:

- a) There is natural structural opposition between the fundamental rhythmic cell and the compound beat.
- b) The fundamental rhythmic cell is a *rhythm* and as such enjoys a unity which is natural and essential to it and which is merely the consequence of the relationship which indissolubly links together its arsis and thesis.
- c) The compound beat, on the contrary, is not a rhythm and can never be a rhythm, since it borrows its elements from two different fundamental rhythmic cells. In a certain sense it is an artificial formation. It is a little measure, constructed in an opposite way to the fundamental rhythmic cell. In the compound beat, the repose preceded the impulse.

### IV

119. Consequently, it is impossible to confuse the fundamental rhythmic cell with the compound beat:





and the position of the ictus is enough in itself to distinguish between them.

The ictus, placed at the end of the fundamental rhythmic cell... that is, on its thesis, whether condensed or articulated... is, on the other hand, placed at the beginning of the compound beat.

Moreover, it cannot be otherwise, since in the continuous movement which produces the compound beat there is an overlapping of the fundamental rhythmic cells on the compound beats (see examples I and II above).

#### V

120. It is natural, too, that the ictus should change in character according to whether it is considered in relationship to the fundamental rhythmic cell or the compound beat.

In the fundamental rhythmic cell, the ictus is exclusively thetic, as we have said.

In the compound beat it has the double character of arsis and thesis. This is merely the direct result of the manner of formation of the compound beat.

### VI

121. Every compound beat, whether binary or tenary, thus possesses an initial ictus which has the double character explained in No. 120.

This should be carefully noted in preparation for the time when we shall relate compound beats to other compound beats in order to enlarge the rhythmic schemes.

We shall then be obliged to choose between the arsic or thetic tendencies of this initial ictus.

# VII

122. We have not yet arrived at that point, however.

For the moment, we shall simply mention in conclusion that a compound beat is nothing more nor less than a rhythmic building-block, a standardized construction material — binary or ternary — quite as inert as a simple beat. It is a potential rhythmic beat.

Between one type and the other there is only an arithmetical relationship as already pointed out (No. 90).

# VIII

123. Note in passing that the ternary compound beat is not equal to the length of a binary compound beat, as a triplet of eighth-notes to that of two regular eighths would be in modern music.

A ternary compound beat actually includes one count more than the binary compound beat. It is thus longer than the binary compound beat.

This is the result of the *isochronism* of the simple one-count beats (No.8).

In comparison with a binary compound beat, the ternary compound beat is a "dilated" value of length, according to the expression of Dom Mocquereau. To shorten and cram the ternary compound beat into the framework of the binary beat by making a triplet of it would be to negate the very source of the *spirit* of Gregorian chant "conceived and organized in such a way as to create within us the peace 'which is defined as tranquillity within order'." (Dom Gajard)

 $\mathbf{X}$ 

124. The application of the concept of the compound beat to the studies of the first year is summarized in practice of the exercises of counting "one-two, one-two-three" in beating the little measures of 2/8 or 3/8 which are the compound beats. That this sort of practice is valid cannot be doubted after what we have said in the present chapter.

We must avoid giving too dry a character to these counting exercises, that is, an anti-musical character. Such a character will undoubtedly hold sway if one forgets that the compound beat, formed of one thesis and one arsis, is a group without a real conclusion, stopping "in mid-air" and whose movement requires resolution on the ictus of the following compound beat.

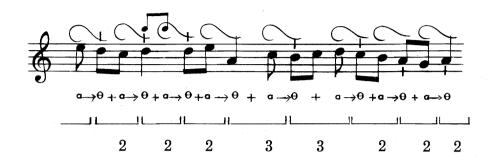


125. In other words, when one relates one compound beat with another, as one does in counting the melody out, the generating fundamental rhythmic cells are automatically reconstructed.

Thus from one compound beat to the next there is a constantly renewed rhythmic life through the *elementary arsis* which flows indistinguishably fom the end of each, and which according to the very accurate expression of Dom Gajard, "moves within the shadow of the ictus which precedes it."

Thus each compound beat must be linked to the next by this elementary arsis. Briefly, the counting must be based both on the fundamental rhythmic cells and on the compound beats.

Thus will the student give the compound beats the suppleness which they get, moreover, from their rhythmic derivation. He will also fulfill from the beginnings of his study one of the most demanding requirements of the phrase-sense.



#### Conclusions

Firstly, within the compound beat the grouping of the simple beats is not made on a *rhythmic* plan with the impulse preceding the repose, but on the metric basis with the repose preceding the impulse.

The organization of the compound beat is thus inverted in comparison with the fundamental rhythmic cell.

Secondly, the fundamental rhythmic cells being exclusively either binary (one short note on the arsis and one short note on the thesis) or ternary (a short note on the arsis and a condensed or articulated two-count group on the thesis), the compound beats which result from their conjunction can also be only binary or ternary.

Thirdly, the ternary compound beat thus marks the *limit of possible extension* of this kind of group. Consequently, any group of simple beats larger than three is reducable to binary or ternary compound beats. In other words, the numbers 2 and 3 are the common denominators of any movement in sound.

Fourthly, the compound beats will serve as the basis for development of all rhythmic forms, without exception, larger than the fundamental rhythmic cell. This larger rhythmic development will take place on the *second stage* of the rhythmic synthesis.

This underscores the importance of the compound beat.

(Precis, Chapters XII, XIII, XIV)

#### CHAPTER FIVE

### A BRIEF EXAMINATION OF GREGORIAN MODALITY\*

### I. Preliminary Notions

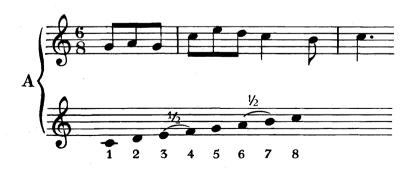
126. A musical composition can utilize, in order to develop, a more or less extended portion of what we call the *general scale of sounds*.

In every case, however, the final repose and cadence of the musical piece should be established on a sound selected as an orientation point at the lower end of this partial scale. We call this tone the tonic.

- 127. Thus it is the note selected from the general scale, as a beginning point for the particular scale, which determines the tone, that is, the absolute pitch of the sounds which make it up.
- 128. On the other hand, it is the position of the tones and half-tones within a scale which determines its mode (or form of existence).

It is extremely important not to confuse these two terms of TONE and MODE with each other.

129. In order to learn to distinguish between them, let us compare the melodic excerpts below and the scales from which they are taken:



<sup>\*</sup>IMPORTANT NOTE: The rudimentary ideas on modality set forth here are to be taken up again in regular courses on modality, and their theoretical scope submitted to the light of the musical facts of actual chant. This summary simply introduces the student to a more profound study of objective nature by supplying him with the first elements of the vocabulary and tools of modal study.







In comparison with excerpt A:

excerpt B is a change of TONE, not mode; excerpt C is a change of MODE, not tone; excerpt D is a change of both TONE and MODE.

A change of tone is, as we see, nothing more than a simple "transposition" modifying nothing of the melodic character of the phrase.

A change of mode, on the contrary, gives a completely different character to the phrase, modifying the melodic intervals.

130. Music, in the category of "modern" tonal art of the last three centuries, roughly speaking, utilizes all the possible tones.

"In Gregorian chant, the *tone* is nothing more than a question of notation and has no relationship with a fixed series of pitches (or, if you will, the absolute pitch of sounds). The scribes noted only intervals, and the choice of the written tone was made most of the time because of the poverty of the system of notation which permitted alteration of only one note, the B, either flat or natural." (H. Potiron)

131. As for the mode, modern music, theoretically, at least, knows of only two:

(a) the major mode, based on the scale of C:



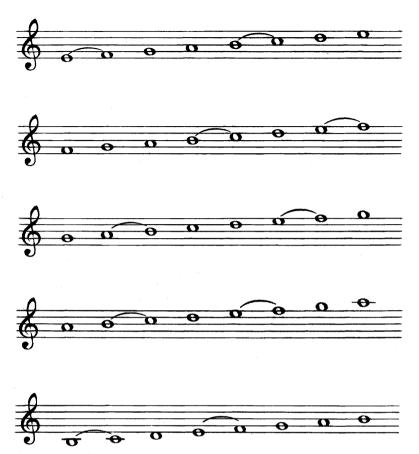
(b) the minor mode based on the natural scale of A:



132. In what we call "ancient" music, a scale could be set up on any degree of the octave from C to C (do to do). "Since the scale was and remained diatonic, it resulted that the position of the half-tones and full tones in relationship to the tonic is found to be modified in each case according to the point of beginning which is adopted, bringing to seven the number of different modes." (Dom Gajard)







133. This is the place to rapidly clarify, before entering the detailed study of the scales above, the general characteristics of the Gregorian melody in comparison with the modern *tonal* system.

The Gregorian melody is:

Firstly, monodic because it excludes absolutely all polyphonic and harmonic elements and combinations, and because its means of expression are limited exclusively to the variations of a single melodic line, that is, to the rise and fall of the notes and their upsurges and lapses into repose;

Secondly, diatonic because it utilizes only diatonic half-tones: mi-fa, si-do, la-si flat, to the exclusion of all chromatic half-tones.

Thirdly, *modal*, that is, constructed on melodic scales which differ widely one from another as to their internal formation (order and position of the tones and half-tones).

Fourthly, does not admit of a leading tone, in principle.

# II. Gregorian Modes

134. In Gregorian chant four modes may be discerned, having as points of cadence counting from the lowest note respectively: RE, MI, FA and SOL.

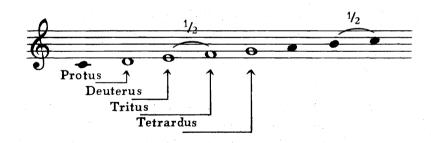
The mode on RE is called Protus.

That on MI is called Deuterus.

That on FA is called Tritus.

That on SOL is called Tetrardus.

135. Let us examine how the four modal scales fit theoretically into substance of C major which they utilize exclusively (except for the variable function of the changeable note, the B).



Theoretically, the scale is one octave in length, but certain types extend an octave above the tonic while others begin their theoretical octaves a fourth below this tonic, running as high as the fifth above.

From this difference comes the distinction between the high modes which are called "authentic" or "authents" and the low modes which are called "plagal" or "derived."

136. These subdivisions bring to eight the theoretical number of

Gregorian modes which may be tabulated as follows:

MODES	CHARACTERISTIC INTERVALS <sup>1</sup>	PRINCIPAL FINALS	AUTHENTICS	PLAGALS	DOMINANTS	
Protus	Lower third is minor (whole tone plus half-tone)	RE	1	2	LA	FA
Deuterus	Lower third is minor (half tone plus whole tone)	MI	3	4	SI(do)	LA
Tritus	Lower third is major (with a half- tone below the tonic)	FA	5	6	DO	LA
Tetrardus	Lower third is major (with a whole tone below the tonic)	SOL	7	8	RE	DO

### IMPORTANT REMARKS

137. In examining the table above, note that:

The authentic mode and the plagal mode have the same final or modal tonic;

the protus and deuterus modes are minor;

The tritus and tetrardus modes are major.

138. Note also that in addition to the tonic, another note plays an important role, namely the DOMINANT, differing according to the ambitus or tessitura of the mode, serving primarily as a note of recitation or tenor in the actual psalm tones (See No. 171).

# Exercises Preparatory to the Study of a Piece

139. Firstly, name the mode in which the piece is written.

Secondly, name the final (or modal tonic) and the dominant.

Thirdly, note the characteristic intervals of this mode.

Fourthly, sing the scale line of C major.

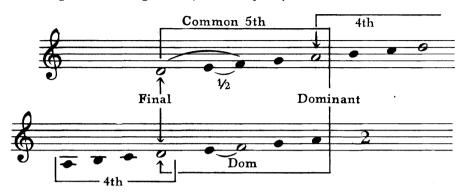
Fifthly, sing the modal scale, hearing mentally, if necessary, the scale-steps of C major which precede the modal tonic.

1. It is extremely important to be able to remember accurately the characteristic intervals of each mode.

# III. Separate Examination of Each Mode

### 140. PROTUS

Characterized as a discreet mode, tranquil and reserved, a mode of contemplation and peace. (Dom Gajard)



# As examples see:

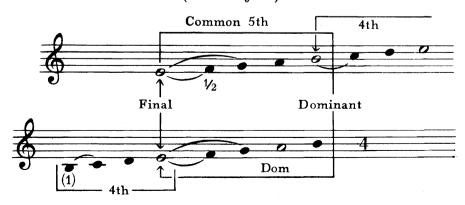
Antiphon Ave Maria, p. 67 Sanctus XI, p. 41 Agnus XII, p. 36

and also these other examples in the Liber Usualis:

Kyrie X ad libitum Alleluia: Justus Germinabit Sanctus XII Offertory Domine Jesu Christe

### 141. DEUTERUS

Characterised as a mode of sweetness and gentleness, ecstasy. An inconclusive mode, giving a sense of infinity and of suspension between heaven and earth. (Dom Gajard)

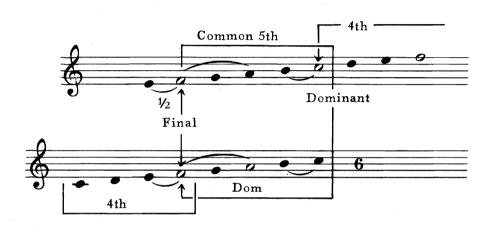


# As examples see:

Alleluia: Domine Deus salutis
Introit Benedicite Dominum
Introit Gaudens gaudebo
Communion Jerusalem
Communion Memento
Introit Resurrexi

### 142. TRITUS

This is a mode of joyous simplicity and confidence. (Dom Gajard)



# As examples see:

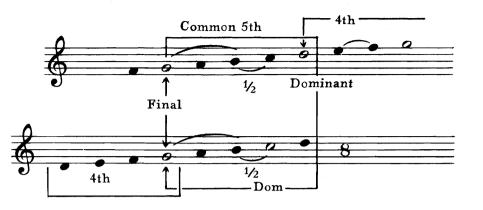
Alma Redemptoris, p. 64 Agnus IX, p. 26 Ave Regina, p. 62

and also these other examples in the Liber Usualis:

Sanctus IX Communion Quinque Regina Coeli (Ornate tone) Offertory Desiderium

# 143. TETRARDUS

This is a clear, warm and vibrant mode, a mode of joyous flights, of enthusiastic and triumphal impulses, a mode of certitude, of solemn affirmations, of the perfection and fullness of happiness. (Dom Gajard)



As examples see in the Liber Usualis:

Kyrie VI

Alleluia: Pascha nostrum Alleluia: Magnus Dominus

Sanctus IV Sanctus VII

Introit Spiritus Domini

# IV. Secondary Finals

144. Let us remember once more that a scale of any sort is not in any way de-characterized by a change of tone (pitch), providing that the characteristic intervals are not modified. It is enough to merely hear these characteristic intervals of a mode for this mode to make itself apparent to us.

Now, then, Gregorian notation uses this principle ingeniously whenever it incurs no alterations other than the B-flat.

Thus it is that Protus can be found with its characteristic intervals concluding on LA, for example:

do RE MI FA

sol LA SI DO

Or Deuterus beginning on SI (B natural):

re MI FA SOL

la SI DO RE

Tritus (often using the B-flat) beginning on DO:

mi FA SOL LA B-flat)

si DO RE MI (fa)

Tetrardus, also beginning on DO, but utilizing the low B-flat which falls beneath this tonic as a sub-tonic note:

fa SOL LA SI

si-flat DO RE MI

145. Before working on the following pieces which end on these secondary finals, let us at least allude to the facts that:

Firstly, the "construction" of a Gregorian piece of somewhat developed nature is often punctuated by lesser cadences or provisional points of repose before arriving at the definitive repose of the final cadence.

Secondly, the extreme modal flexibility of Gregorian pieces often leads to a placing of their provisional cadences on different modal tonics.

Thirdly, because of this latter fact, the mode indicated by number at the beginning of each piece is primarily the mode of the final cadence.

As examples see:

PROTUS ON LA: \*Kyrie IV, Kyrie II ad libitum (Liber, p.80);

DEUTERUS ON SI (B-natural): Mass I—\*Gloria, \*Sanctus, Agnus, \*Kyrie XV, \*Kyrie XVIII;

DEUTERUS ON LA: Communion Beatus servus (Liber p.1203)

TRITUS ON DO: Offertory In virtute (Liber p.1205)

TETRARDUS ON DO: Responsory Jesum tradidit (Liber p.687)

# V. Transposition

- 146. We have said that the "selected tones of Gregorian notation were merely a matter of written convenience," not affixing the melodies to a definite absolute pitch and not concerning itself with anything but the intervals. It follows that a large number of pieces will not be suitable in range to the average voice. Thus it will be necessary to alter their tones (pitches), thus to transpose them.
- 147. Before studying the mechanics of transposition, aside from all that is implied by Gregorian modality, it is vital to have very pre-

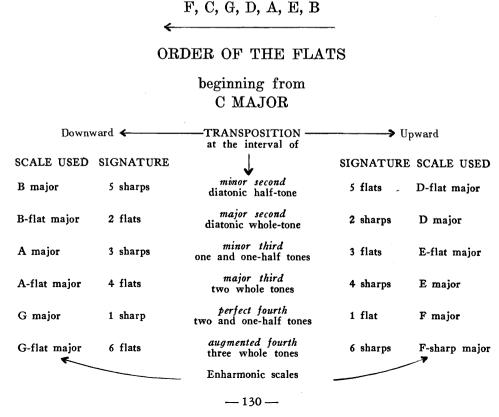
148.

cise understanding on the following matters:

- 1) Structure of the modern major scale,
- 2) Names of the principal degrees of this scale (tonic, dominant, subdominant, leading-tone, supertonic, mediant and submediant),
- 3) Distinction between the idea of a tone as a whole-step and the idea of a tone as the pitch of a scale in the over-all scale of musical sounds.
  - 4) The intervals and their structure,
  - 5) The signatures of the modern major sharp and flat keys.

In this regard it will be advisable to memorize the substance of the following table *perfectly*:

ORDER OF THE SHARPS



# 149. Remember, lastly:

- a) that Gregorian modal scales always utilize what we call the "scale line of C major" and that the beginning point for any transposition will thus have to be C;
- b) that the B-flat can be considered as the descending chromatic alteration of the leading-tone of C major and, consequently, in transposition, this flat will always equal a descending chromatic alteration of whatever scale-line is used (a natural note becoming flat, a sharp note becoming natural, etc.).
- 150. Transposition exercises can be approached in several ways. Using  $Sanctus\ XI$  as an example, the student may be asked to:
  - a) Transpose Sanctus XI a fourth higher;
  - b) Read Sanctus XI with Sol as the final;
  - c) Read Sanctus XI with a dominant of B-flat;
  - d) Read Sanctus XI using the materials of F major;
- e) Read Sanctus XI with the G-clef on the second line (one flat in the signature).

# CALCULATIONS:

I. Firstly, I shall use the scale line which lies a fourth higher than that of C major, namely F major, one flat on the signature;

Secondly, the regular protus plagal mode, which begins on the second scale-step of C major, will thus begin on Sol, and its dominant will be B-flat;

Thirdly, the regular B-flat of the Gregorian notation will change the leading-tone of the scale of F, which will then become E-flat;

Fourthly, the C of the original clef will become an F. To obtain this, I shall read, imagining a G-clef to be on the second line.

II. Firstly, to read a protus plagal mode with a *sol* final instead of *re* is the same as transposing it a fourth higher; the dominant will be B-flat;

Secondly, instead of the scale-line of C, I shall thus use that of F, with a B-flat in the signature;

Continue as in No. I.

III. Firstly, to read a protus plagal mode with a B-flat dominant instead of an F dominant is the same as transposing it upward a fourth;

Secondly, instead of the scale-line of C, I shall use that of F, etc. . . .

Continue as in No. I.

IV. Firstly, to use the materials of F instead of those of C is the same as transposing a fourth higher;

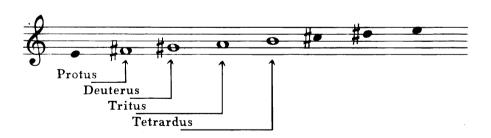
Continue as in No. I.

V. To substitute the G-clef for the F-clef on the third line, adding one flat to the signature, is the same as reading a B-flat where originally there was a fa, thus transposing a fourth higher;

Continue as in No. I.

### EXAMPLE OF AN EXERCISE TO BE WRITTEN OUT

156. Mark out the four modal scales within the materials of E major.



157. Construct the four modal scales, beginning each time on E: Protus. Scale-line and material used borrowed from D major:



Deuterus. Scale-line and material used borrowed from C major:



Tritus. Scale-line and material used borrowed from B major:



Tetrardus. Scale-line and material used borrowed from A major:



158. Transcribe the *Agnus* of Mass XIII a minor third higher. (In this case, the notes are read in the key required by the transposition, but written on the five-line staff with a G-clef.)

### Read as:



# Transcribe as:



### CHAPTER SIX

### THE LATIN WORD

#### PRELIMINARY FACTORS TO THE STUDY OF PSALMODY

### I. The Latin Word and the Tonic Accent

159. Latin, like English, is made up of monosyllabic words and polysyllabic words. The polysyllabic words all have a *tonic accent* whose place is designated in our books by an accent mark.

Every monosyllabic word having a distinct meaning is accented, but this accent can be weakened or eliminated, for example, in the following cases:

Rex dixit, Rex Dominus, tu nobis . . . (Dom Mocquereau) because it is impossible to have two accents in succession.

Non-accented syllables are called atonal.

In English, the word accent can fall at any position in the word. Sometimes it falls on the final syllable: begin, support, create, etc., or on the penultimate (next-to-last) syllable: beginning, creation, etc., or on the antepenultimate: covering, manager, wonderful, etc., and in some instances has been transferred to even four or five syllables from the final: manageable, dominating, incorrigibleness.

- 160. The tonic accent of Latin polysyllabic words is never on the final syllable.
  - It can be: a) On the *penultimate* (next-to-last syllable), in which case the word falls into the category of tonic spondees (better called *paroxytonics*):

b) On the antepenultimate (second-from-last sylla,ble) in which case the word then falls into the category of *tonic dactyls* (better referred to as *proparoxytonics*):

Words of two syllables have the accent of necessity on the first of their two syllables.

Words of three syllables can have the accent in either of the usual places:

161. What distinguishes the spondee from the dactyl (see preceding example) is thus not the number of syllables of which the word is formed, but the number of syllables which come after the tonic accent: one in the spondee; two in the dactyl.

# II. The Latin Word and Secondary Accents

162. There is never more than one tonic accent (T) per word.

On the other hand, words with enough syllables to show such characteristics carry secondary accents (S) which fall every other syllable in counting backward or forward from the tonic accent.

Therefore:

a) A word of two syllables never has a seondary accent:

b) A word of three syllables of the spondaic type never has a secondary accent:

c) A word of three syllables of the *dactylic* type has a secondary accent *on its final*:

d) Words of more than four syllables all have one or more secondary accents:

# **Tonic Spondees**

# Tonic Dactyls

#### IMPORTANT NOTE

etc . . .

163. It will be well to note that in psalmody, when a dactyl falls immediately before a monosyllable, this monosyllable becomes united to it, and for this reason, because of the secondary accent of the larger word's final syllable, the monosyllable loses its accent, and the whole combination then takes the form of a spondee:

Contrastingly, however, if a spondee thus adds to itself a monosyllable, this also becomes united to it. The spondee and the added monosyllable then fall into the category of dactyls. In this case, the monosyllable has its own accent transformed into a secondary accent through relationship with the preceding tonic accent:

$$\begin{array}{ccc} \underline{\text{fác - tus}} & \underline{\text{est}} \\ T & S \end{array}$$

### CHAPTER SEVEN

### **PSALMODY**

164. The word "psalmody" is used to designate the chant of the psalms and canticles of the Church.

The chant of the psalms (songs of praise which David improvised while accompanying himself on an instrument similar to the harp) passed from the Jewish worship into the Christian worship where it took at an early date the form of an alteration of the singing by two choirs of a unison melody.

- 165. The evangelical canticles (taken from the New Testament) are the chants of thanksgiving of Mary (Magnificat), Zachary (Benedictus), and Simeon (Nunc dimittis).
- 166. The psalms are divided into verses. Each verse in turn includes two distinct half-verses, indicated in liturgical books by an asterisk.

For each of the eight modes there exists a special psalmodic formula which is to be repeated for each verse.

The choice of the formula depends on a short melody called the antiphon, which is sung before the psalm. The mode of the antiphon determines the tone of the psalm. The antiphon and the psalm thus form a single unit, a single musical piece, which closes after the Gloria Patri with the repetition of this antiphon. (Dom Mocquereau)

167. The psalmodic formula is indicated at the beginning of the antiphon by a number and a letter.

The letter indicates the final note of the psalm tone. If the final of the psalm tone is the same as that of the mode of the antiphon, the letter is a *capital*, otherwise it is a small letter.

168. In the complete psalm formula we find:

- a) the intonation,
- b) the tenor, which is the dominant (principal) of the corresponding mode,
- c) the cadences of I) the mediant for the first half-verse II) the termination for the second half.

Eighth Tone

### The Intonation

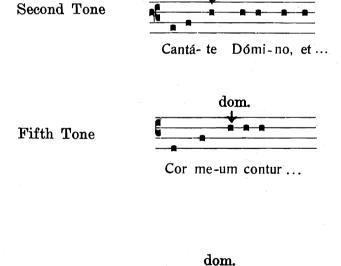
169. The intonation is the melodic link which, at the beginning of the psalm, generally connects the end of the antiphon with the dominant. Only the first verse of the regular psalms is sung with the intonation. On the other hand, the intonation is repeated at each verse of the evangelical canticles.

The intonation includes two or three notes or groups of notes on which an equal number of syllables is adapted, regardless of what syllables happen to fall on these notes or groups.

We shall learn for now only the second, fifth and eighth modes on one hand and the sixth on the other.

170. Here are the different intonations for these modes:

 $\mathbf{dom}$ .

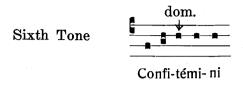


— 138 —

laudá- bo ...

In De-o

Intonation of two syllables (three notes, including a podatus:)



### The Tenor

- 171. The *tenor* consists of all the notes sung on the recitation note at the unison:
  - a) from the intonation as far as the mediant
  - b) from the mediant to the termination.

The melodic position of the tenor is in a general sense on the dominant of the mode.

172. When the first part of the verse is very long, we often find a *flex* which is the indication of an inflection downwards of the melody and which permits, if absolutely necessary, a slight breath as at the quarter-bars.

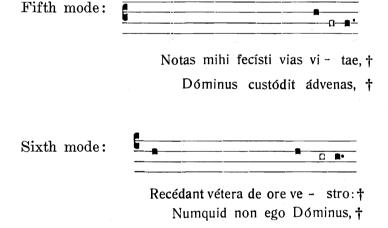
The flex is made on the diatonic interval next below the dominant, unless this downward step is a semi-tone. When a semi-tone would result, the step becomes a leap of a minor third.

### Thus:

- a) the dominant fa of the second mode flexes on re (minor third),
- b) the dominant do of the fifth and eighth modes flexes on la (minor third),
- c) the dominant la of the sixth mode flexes on sol (major second)
- 173. The last accent of the text which precedes the flex sign † is the last syllable sung on the *tenor* before the drop to the flex-tone. If this accent belongs to a spondee, the flex comes on the final of the word.

If this accent belongs to a dactyl, the flex is made on the atonal penultimate syllable immediately following this accent and is maintained for the word-final, also, without change of pitch for this latter syllable.

The note on which the atonal syllable is sung is called the "extra" or "unplanned-for" note, but the best term we might apply would be "supplementary" note, as this best expresses the French meaning given in Solesmes terminology. We also recommend "epenthetic" note, derived from the Greek "to insert." In any case, this epenthetic note is represented by a "white" or hollow punctum:



Immediately after the dotted note of the flex, the tenor is resumed as before.

# Cadences

174. What we call cadences are those little melodic formulas which in each half of the verse follow upon the recitation on the tenor.

The cadence begins at the very moment that the voice steps away from the tenor, either upward or downward in movement.

The *mediant* cadences close the first half of the verse and generally close on the dominant.

Each psalm tone has its own mediant cadence, and thus there are eight of them altogether.

The final cadences, also called *terminations*, close the second half of each verse, and as we have said, can stop on the final of the mode or on another note (No. 167).

This possibility of different choices is necessitated by the repetition of the antiphon which follows the psalm and which forms a unit with it. The psalm-tone ending is chosen so as to form a smooth link with this antiphon. The first note of the antiphon and the direction of its melody are considered in this choice. The choice is not made by the singers, however, but is given in the books.

The melodic formula of this final cadence is thus indicated after the antiphon by the letters already mentioned: e, u, o, u, a, e (No. 53).

### Classification of the Cadences

175. We make a distinction on one hand between:

- a) the cadences based on one accent,
- b) cadences based on two accents,
- c) cadences based on one accent with preparatory notes, and on the other hand:
  - a) spondaic cadences and
  - b) dactylic cadences.

# I. Cadences on One Accent

# A. Spondaic cadences

176. The one-accent cadence, the smallest there is, is modelled after the tonic spondee *me-o* and contains necessarily in every instance two notes which are considered *essential*: an accented note (melodic accent) and an atonal note which follows it:

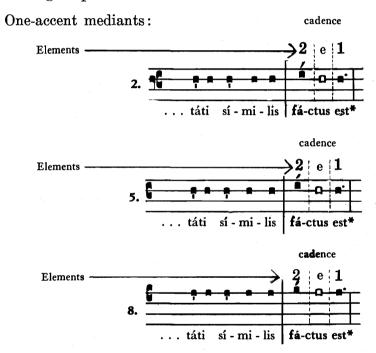


A monosyllable or secondary accent can form this melodic accent.

### B. Dactylic Cadences

177. When we substitute the tonic dactyl for the tonic spondee, we always then have *two* essential notes, one for the accent and one for the final, but between them falls the *epenthetic* note (for the atonal syllable) which is sung in the tones we are studying at the same pitch as the note which follows it. If the following note rises, the epenthesis rises, and vice versa.

The one-accent cadence (without preparatory syllables) is practically never used in the *terminations* (final carences) except in the fourth psalm-tone. Moreover, only the mediants of the second, fifth and eighth psalm tones use such a cadence:

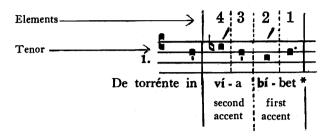


# II. Cadences on Two Accents

178. The two-accent cadence is based on the syllabic type of corde me-o, that is, on two tonic spondees.

It always includes, therefore, four essential elements (notes or groups). The melodic accents coincide with the *second* and *fourth* of these elements.

The second accent (that is, the one which is furthest from the final note) is absolutely and necessarily on a note melodically higher than the recitation note. This is, moreover, an infallable sign for recognizing a formula of two accents (mediant or termination, there is no exception to this rule).



The cadence of two accents can be found in four different forms:

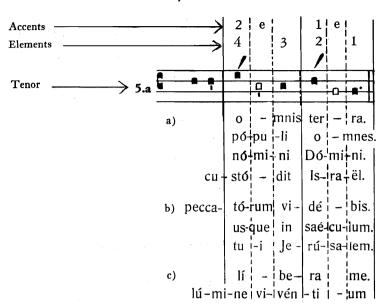
Mediants of the first and sixth tones

Let us note that when the *dactyl* occurs, as in the cadences of one accent, we use the *epenthetic note*.

This epenthesis, in the tones which we are studying in this course, is always located between two essential notes, and always sung at the same pitch as the note which follows it.

In the psalm tones which we are studying in this course, we find a mediant formula of two accents for the sixth tone (very rarely used, however) and a termination of two accents for the fifth tone.

Fifth Tone Termination



# IMPORTANT NOTE

179. The epenthesis is not necessarily the central syllable of a dactyl. There is always an epenthesis whenever the melodic accents are separated by two syllables.

See the example above in (b) where word finals fall on the epenthesis.

180. When the cadence begins with a note lower than that of the recitation, this cadence contains one or more syllables of preparation to which the elements of the melodic formula (notes or groups) which precede the accent are adapted, whether or not these syllables are accented or not.

- 181. The final accent of the text is then always found on the second element of the melodic cadence. It is, of course, understood that the dotted note is considered to be the *first element* of these cadences. The elements are always numbered inversely from the end, as this is the way in which the text, too, must be calculated to fit the formula.
- 182. The notes or syllables of preparation are not used except in cadences of one accent (at the mediant or termination).

In practice, we shall find while studying this course:

- a) One syllable of preparation (one note) in the cadence of Tone 2D.
- b) Two syllables of preparation (one note and one podatus) in the cadence of Tone 6F.
- c) Two syllables of preparation (two notes) in the cadence of Tones 8G and 8c.

183.









It would be pointless for us to set down here all the melodic formulas of the psalm tones we are going to study, since these formulas can be found easily in the *Liber Usualis*. The student should learn them by heart together with the following rules:

# 184. This is a very important rule:

- a) Having two accents: all cadences of four notes whose first note is higher than the recitation tone;
- b) Having one accent:
  - 1) all cadences of two notes;
  - 2) all cadences longer than these whose first note is lower than the recitation note or at the unison with it.

# CONCLUSION

The practical application of the psalm tones to any psalm whatsoever presents no difficulties at all if it is written out with the aid of tables like those of the examples given here.

It is a different matter when it is a question of singing from the open book, and although it is true that things are made easier in this regard because of the fact that our regular books make errors nearly impossible by printing the elements of the formulas in different and contrasting type characters, it nevertheless remains that these typographical modifications have their foundation which we must thoroughly understand. They are neither the result of caprice nor of chance.

Moreover, it can happen that under certain circumstances one may find oneself before a text bare of all such indications, and in such a case one should still be able to adapt it to any of the psalm tones. This presupposes that one knows the organization and requirements of them perfectly.

The most difficult type of problem is the application of mediants or terminations of one accent with preparatory syllables.

In such cases the accent must be ascertained quickly and before all else, and then the proper number of syllables calculated inversely for the preparation.

\* \* \*

It will be worthwhile to do some written exercises (based on the design of the preceding tables mentioned above) and above all oral practice in slow psalm-singing, with the understanding that for this course and its scope we shall limit ourselves to the purely material and calculated application of the psalm tones, without going into the larger aspects of rhythm.

For these exercises, the psalms which follow the Mass of Holy Thursday and those for the Burial of Young Children will be worked out to great advantage.

In singing, all care must be used to observe the rest at the mediant according to the Solesmes principles. In this case, it is always two counts in length, equal to the quarter-note as at the full bar in regular chants. There is one important difference, however. In psalmody there is never an eighth-rest pause as in regular chant when the second phrase begins on a non-ictic note. In psalmody the rest is always equal to the quarter-rest of two simple counts, even when a non-ictic note follows.

# **INDEX**

[Musical examples referred to in this index are those which are given in entirety in the body of the volume. Books referred to are those which are cited prominently in the course.]

```
Absolve (Tract), 75
                                             Bars
Accent
                                                double, 77
  position of, 134
                                                full, 76
  secondary, 135
                                                half-, 76
  tonic, 134
                                                quarter-, 76
                                             Beat
Ad te Domine (Offertory), 49
                                                binary compound, 112
Ad te levavi (Introit), 74
                                                compound, 99, 111
Ad te levavi (Tract), 73
Adorabo (Alleluia), 47
                                                  articulated, 100, 101
Adrian, Pope, 5
                                                  condensed, 100, 101
Agnus Dei III, 62
                                                  mixed, 100, 101
Agnus Dei IX, 26
Agnus Dei XII, 36
                                                compound, and the fundamental rhyth-
Agnus Dei XVII, 42
                                                  mic cell, 115
                                                compound, definition of, 89, 114
Alma Redemptoris (Antiphon), 64
                                                dependent character of compound, 115
Analysis, neumatic, 85
                                                formation of compound, 111
Ancus, 29
                                                in general, definition of, 89
Anima nostra (Offertory), 46
                                                notion of, 98
Ante luciferum (Antiphon for Epi-
                                                simple, 14, 98
  phany), 69
                                                simple, definition of, 89
Antiphon, psalm-tone, 137
                                                ternary compound, 114
Apostropha, 11
Aristoxenus, 94
                                             Beethoven, 95, 97
Arsis, 91
                                             Benedictus es (Gradual), 78
Arsis, elementary, 118
                                             Bivirga, 14
  classification of, 86
                                             Cadences, 140
  of movement, the, 87
                                                at the mediant, 137, 140
  of repose, the, 87
                                                at the verse-ending, 137, 141
  order and proportion in the, 86
                                                classification of, 141
                                                elements of the, 142
Asperges me, 24
                                                lesser, 129
Asperges me I (ad lib.), 38
                                                of one accent, 141, 142
Asterisk, 79
                                                of two accents, 142
Audi benigne Conditor (Hymn), 18
Ave Maria (Antiphon), 67
                                              Canticles, 4, 137
Ave Maria (Offertory), 47
                                             Cell, Fundamental Rhythmic, 103
```

Cephalicus, 29

Ave Regina (solemn tone), 62

Chant Ambrosian, 5 Art in prayer, 3 Fruits of the study of, 3 Gallican, 5	Desrocquettes, Dom J-H., 9  Deus tu convertens (Offertory), 50  Deuterus, 124  characteristics of, 126
History of, 4  Ambrosian, 5	Developed neumes, 30  Dicite (Communion), 60
chronological indication in Kyriale, 80	D'Indy, Vincent, 105 Distropha, 11, 14 Deminant model, 125
decadence, 4, 7 development, 4, 5	Dominant, modal, 125 Dominus dixit (Introit), 35
formation, 4	Dot, mora, 14 Double bar, 77
Gallican, 5 Kyriale titles, 80	Dynamic order, rhythm and the, 96
Mozarabic, 5 restoration, 4, 8	Eighth tone, intonation of, 138
tropes, 80	Epenthesis, 140, 144
In the liturgy, 3 Legislation, 3	Epiphonus, 29 Episema horizontal, 14
Constitution Divini Cultus, 4	vertical, 81
Decree, S.C.R. (April 8, 1908), 3	Esto mihi (Introit), 39
Encyclical <i>Mediator Dei</i> , 4 Letter of Cardinal Pizzardo	Ex Sion (Gradual), 63 Exaltabo (Offertory), 32
(1949), 4	Exiit sermo (Communion), 36
Letter to Cardinal Respighi, 3 Motu Proprio (1903), 3	Exsurge (Introit), 43
Motu Proprio (1904), 3	Fifth tone, intonation of, 138
Manuscripts of, 6	Filiae Regum (Offertory), 46 Finals, secondary, 128
Matter in, 90 Matter and Form in, 90	Flat, 77, 78 Flex, 139
Mozarabic, 5	Form and Matter, 87
Clefs, 10	Form and Matter in Chant, 90 Formula, psalmodic, 137
Climacus, 24	Full bar, 76
resupinus, 30	Fundamental Rhythmic Cell, 103
Clivis, 14	Gajard, Dom Joseph, 9
Comma, 77 Commovisti (Tract), 51	Gaudeamus (Introit), 65 Gaudete (Introit), 58
Compound beat, 81 (see also: Beat)	Gloria I, 33
Counting, 83 Creator alme siderum (Hymn), 15	Gloria IV, 53 Gloria IX, 24
Crudelis Herodes (Hymn), 27 Custos, 79	Gloria X, 22, 26 Gloria XIII, 29
Da pacem (Introit), 66	Gontier, Canon, 8
Dactyl, 135 Damasius, St., 5	Gregorian Institute of America, 9 Gregorian Institute of Paris, 9
De profundis (Offertory), 70	Gregorian Review, 76

Liquescent neumes, 28

Gregory I, Saint, 4, 5 Lucis Creator, 19 Gueranger, Dom Prosper, 8 Guide notes, 79 Matter and form, 87 Matter and form in chant, 90 Half-bar, 76 Matter in Gregorian chant, 90 Matter, the physical variations of, 94 Hodie scietis (Introit), 34 Matter, variants in , 90 Mediant, 137 Ictus, 81 Mediation, 137 deduction of, 83 Melodic order, rhythm and the, 95 double function of, 113 Melody, diatonic character of Gregorian, exclusively thetic quality of, 109 in the fundamental rhythmic cell, 109 modal character of Gregorian, 124 junction of, 112 monodic character of Gregorian, 123 rules for placement of, 82 Melos, 120 Minimum pause, 77 In manus (Responsory), 17 In medio (Introit), 21 Miserere (Antiphon), 16 Mocquereau, Dom Andre, 8 In monte (Responsory), 72 Modality, 120 In voluntate tua (Introit), 69 Modes, 120 Intonation of 8th tone, 138 authentic, 124 of 5th tone, 138 Gregorian, 122, 123 of the psalm-tone, 137, 138 modern major, 122 of the 2nd tone, 138 modern minor, 122 of the 6th tone, 139 plagal, 124 structure of, 125 Inveni David (Alleluia), 58 Monosyllable, absorbing of, 136 Jausions, Dom, 8 Movement, musical, 93 Jubilate (Offertory), 66 Mozart, 97 Justus ut palma (Introit), 22 Neumes Kyriale titles, 80 disaggregate, 70 Kyrie IV, 40 fundamental, 11 Kyrie IX, 57 Kyrie XI, 34 origin of, 11 Kyrie XI (ad lib.), 61 Kyrie XII, 40 praepunctis, 70, 71 similar to the salicus, 65 special, 11 Kyrie XV, 54 sub-punctis, 31 Kyrie XVI, 20, 61 Kyrie XVII (Sixth mode), 41 Nombre Musical Gregorien, 8 Kyrie XVIII, 37 Nos autem (Introit), 37 Notation Lambillotte, Father, S. J., 7, 8 Alphabetical, 6 Latin word, the, 134 Bilingual, 6 Le Guennant, Auguste, 9 Diastematic, 6 Leading tone, lack of, 124 Graded Study of, A, 5 Letters Neumatic, 6 e u o u a e, 79 ij., iij., 79 Number, modal, 79 Liber Usualis, 146

O lux beata (Hymn), 20

Oculi mei (Introit), 49	Repercussion, 44 Requiem (Introit), 43
Oriscus, 11, 56	icoquiem (inclose), 15
at the unison, 57	Restoration
comparison with pressus, 61.	melodic, 7
	a a
on the step above, 58	modal, 9 rhythmic, 8
Paleographie Musicale, 8	<b>,</b> ,
Paroxytonics, 134	Rests, 76, 77
Phonetic order, rhythm and the, 95	at the psalm-mediant, 147
Pius X, Saint, 3, 8	,
Pius X School of Liturgical Music, 9	Revelabitur (Communion), 28
Pius XI, Pope, 4	Revue Gregorienne, 9
	Rhythm and quantity, 98
Pius XII, Pope, 4	
Podatus, 14	and the dynamic order, 96
of a fourth, 69	and the melodic order, 95
sub-punctis, 31	and the phonetic order, 95
	compound, 93
Pontifical Institute of Sacred Music, 9	musical, 91
Porrectus, 20	musical, definition of, 91
flexus, 31	simple, 93
liquescent, 29	study of, 86
Pothier, Dom Joseph, 8	Rhythmic Cell, the Fundamental, 103
Potiron, Henri, 9	Rhythmic forms, the classification of, 93
Precis of Gregorian Rhythmics, 86	Rhythmic synthesis, 111
	Rorate caeli (Introit), 55,
Preparation, notes of, 144, 145	
Pressus, 36, 56	Sacris Solemniis (Hymn), 68
authentic, 36	Salicus, 24
by assimilation, 38	Salutis humanae Sator (Hymn), 59
comparison with oriscus, 61	Salva nos (Antiphon), 16
	Sanctus I, 68
Proparoxytonics, 135	Sanctus II, 40
Protus, 124	Sanctus V, 54
characteristics of, 126	Sanctus X, 38
	Sanctus XI, 41, 57
Psalmody, 137	Sanctus XVII, 42
Psalms, 137	Scale of sounds, general, 120
Jewish, 4	Scandicus, 24 flexus, 31
	subtripunctis, 31
Puer natus est (Introit), 51, 56, 64	
Punctum, 11	Schola Cantorum, 5
	Sciant gentes (Gradual), 70
Quantity, rhythm and, 98	Second tone, intonation of, 138
Quarter-bar, 76	Sergent, Dom, 9
Quilisma, 11, 52	Schubert, Franz, 97
	Signatures, 130
Reges Tharsis (Offertory), 45	Simple beat, 81
Regina Caeli (simple tone), 16	Sixth tone, intonation of, 139

Spondee, 134 Staff, 10 Strophicus, 11 Syllables accented, 134 atonal, 134

Synthesis, rhythmic, 111

Te lucis (BVM), 26 (Pentecost), 21

Tenor, 125 of the psalm-tone, 137, 139

Termination, 137 Tetrardus, 124 characteristics of, 127

Text, unpointed, 146 Thesis, 91 Tone, 120 Tonic, 120 Tonic accent, 134 Torculus, 20 liquescent, 29 resupinus, 30 Transcription, 82 Transposition, 129 table for, 130

Tristropha, 11, 20 Tritus, 124 characteristics of, 127

Trivirga, 20 Trope, 80

Veni Domine (Alleluia), 60 Verse, psalm, 137 Viderunt omnes (Communion), 64 Vidi Aquam (Antiphon), 31, 72 Vidimus stellam (Alleluia), 55 (Communion), 57

Virga, 11

Word, the Latin, 134 Words, monosyllabic, 134

# INDEX OF MUSICAL QUOTATIONS

# AGNUS DEI

ANTIPHONS

III, 62 IX, 26 XII, 36 XVII. 42 IX, 24 X, 22, 26 XIII, 29

# GRADUALS

# ALLELUIA VERSES

Adorabo, 47 Inveni David, 58 Veni, Domine, 60 Vidimus Stellam, 55 Benedictus es, 78 Ex Sion, 63 Sciant gentes, 70

# **HYMNS**

Alma Redemptoris, 64 Ante luciferum, 69 Asperges me (partial), 24 Asperges me I ad. lib., 38 Ave Maria, 67 Ave Regina, 62 Miserere, 16 Regina coeli, 16 Salva nos, 16 Vidi aquam, 31, 72

Audi benigne Conditor, 18 Creator alme siderum, 15 Crudelis Herodes, 27 Lucis Creator, 19 O Lux beata, 20 Sacris Solemniis, 68 Salutis humanae, 59 Te lucis (Pentecost), 21 Te lucis (Blessed Virgin), 26

# COMMUNIONS

Dicite, 60 Exiit sermo, 28 Revelabitur, 28 Viderunt omnes, 64 Vidimus stellam, 57

# GLORIAS

I. 33 IV, 53

# INTROITS

Ad te levavi, 74 Da pacem, 66 Dominus dixit, 35 Esto mihi, 39 Exsurge, 43 Gaudeamus, 65 Gaudete, 58 Hodie scietis, 34 In medio, 21 In voluntate tua, 69 Justus ut palma, 22 Nos autem, 37 Oculi mei, 49 Puer natus est, 51, 56, 64 Requiem, 43 Rorate, 55

#### KYRIES

IV, 40 IX, 57 XI, 34 XI, ad lib., 61 XII, 40 XV, 54 XVI, 20, 61 XVII (sixth mode), 41 XVIII, 37

#### **OFFERTORIES**

Ad te Domine, 49 Anima nostra, 46 Ave Maria, 47 De profundis, 70 Deus tu convertens, 50 Exaltabo, 32 Filiae Regum, 46 Jubilate, 66 Reges Tharsis, 45

#### RESPONSORIES

In manus, 17, 18 In monte, 72

#### SANCTUS

I, 68 II, 40 V, 54 X, 38 XI, 41, 57 XVII, 42

#### TRACTS

Absolve, 75 Ad te levavi, 73 Commovisti, 51

# TRANSCRIPTION TABLE

Single-note Neumes

Two-note Neumes

Three-note Neumes

Special Neumes

