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**TREATISE**  
**ON THE ACCOMPANIMENT**  
**OF**  
**GREGORIAN CHANT**

BY

**HENRI POTIRON**

Choirmaster of the Sacred Heart Basilica - Paris  
Professor at the Gregorian Institute

**WITH A PREFACE**

by Dom **JEAN-HÉBERT DESROCQUETTES O. S. B.**  
Monk of Solesmes

---

English translation by **RUTH C. GABAIN**



**SOCIETY OF ST. JOHN THE EVANGELIST**  
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Tornaci, die 1 Julii 1933.

J. LECOUVET, Vic. Gen.

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## FOREWORD

To readers who are familiar with my "*Méthode d'harmonie appliquée à l'accompagnement du chant grégorien*", written in 1910 and now out of date, it will be clear that this book has nothing in common with its predecessor. Nevertheless, I still consider elementary counterpoint exercises to be the best preparation for the writing of good Plainsong accompaniments. The following are some of the advantages of such a method: 1. simplicity and clearness in an exposition, which takes account of two-part harmony only; 2. the suppression of elements unnecessary and even harmful in harmonized Plainsong, such as theories about the value of harmonic degrees and the resulting system of chord successions: modulations, harmonic sequences, alterations etc.; 3. the acquisition of freedom in style through the use of exercises which are of a purely practical nature.

I may add that contrapuntal art is as far removed as possible from text-book knowledge. Now, it is well known that people who talk and write a great deal about Plainsong accompaniment are generally far more skilful on foolscap than they are on music paper or at the organ. Do we not find writers expounding (often incorrectly) the whole theory of harmony and then, in the examples which they give, violating the very laws they have formulated? What really matters, therefore, is to know how to write music, all else is vanity and, at best, amounts to very little.

My theories on rhythm are those of Solesmes, although I bring some personal arguments to support them. Formerly, I sinned through "*enumeratio imperfecta*", as Bacon says, having only considered the most characteristic accent of our own music, the heavy, long and trenchant accent, which I now call *thetic*, and having ignored the many instances of light and short accents, which I will call *arsic*<sup>1</sup>. Closer study has enabled me to define the character of this *arsic* accent in modern music, and, through the analysis of the musical text, to recognize the same character in a Plainsong accent. From this point of view, then, the art of Plainsong does not stand apart from the rest of music, the contrary, rather, is the case.

I owe a deep debt of gratitude to those who have guided and encouraged me in my work. First and foremost, to the venerable Dom Mocquereau, to Dom Gajard and to Dom Desroquettes. If this humble treatise and my articles in reviews, developing the same

<sup>1</sup> These, moreover, we do not always call accents.

ideas,<sup>1</sup> are instrumental in making their teaching recognized and appreciated, even so, my debt will be but inadequately repaid.

Part II, which treats of harmony, will seem to contain most that is new, and, at the same time, the rules which are given may appear very strict to the reader. The ideas if not the terms will be easily recognized as those which Dom Desroquettes has set forth in his articles on the same subject, published in *La Revue grégorienne*. If Part II has been written in my own words, the substance of it (especially the practical modal rules) is the fruit of collaboration with Dom Desroquettes, in which his wide experience of Plainsong has played the larger part. And, if the narrow limits imposed on the accompanist appear alarming, it should be remembered that Plainsong was not meant to be accompanied at all and that, consequently, modal rules cannot be made too rigorous. Moreover, any true musician will be able to build stable and musicianly accompaniments on these foundations; he may even use certain forms of writing which, to my mind, would be dangerous for the beginner, provided he respects in them the modal character of the melodic text (admirable examples of this are to be found in modern music, especially since Debussy).

I have not thought it necessary nor even useful to give some fifteen or twenty harmonized Plainsong pieces as models. With explanatory remarks they would have exceeded the scope of this volume; but Dom Desroquettes, with some slight help from me, has supplied the need. His remarkable accompaniments, with numerous and clear notes on rhythm, mode and harmony, are the natural complement of this book.

It has been said (in *La Musica d'Oggi*, of Milan, on Dom Desroquette's articles) that these modal theories "suffer from the same defect as other Solesmes studies: that they take as foundation what has still to be proved, viz. that Plainsong differs from all other music.... and that the attempt to find practical rules that will apply to every case is illusory"<sup>2</sup>. From a rhythmical point of view, even if one admits the mensuralist hypothesis, it is evident that Plainsong differs considerably from modern music. But to pretend that the Solesmian theory cannot find support in musical examples, which have been subjected to accurate and detailed analysis, is a statement which I am striving with all my strength to overthrow. From a modal point of view, the remarks of the Milanese review are even less justi-

fied. A purely modal and diatonic art is clearly quite separate from an art which is chromatic and knows only two modes, themselves differing considerably from the corresponding Plainsong modes. A monodic art has nothing in common with one in which harmony has perhaps taken the first place. If, then, Plainsong harmony is possible, it will not be conceived according to the system of Rameau, as still taught in our schools; and, among general rules, at least the following may be safely formulated: that the melodic text alone will supply the elements of the required harmonies (each case should be studied separately and the various cases compared with one another). It is now generally known that many beautiful harmonic successions have been discovered of which Reber was ignorant but of which happy use has been made by modern composers. In short, let us once and for all do away with the legend that Solesmes places Plainsong outside those laws which are generally accepted as governing music.

We hope the reader will understand that the aim of this book is entirely practical. We have, therefore, refrained from discussing the various mensuralist interpretations because the majority of choirs more or less follow Dom Pothier's principles. In the same way, the modal theories aim only at formulating definite rules for the accompanist; they have no historical pretensions, and are based solely on an objective study of the musical text (Vatican edition).

Finally, my thanks are due to the eminent professors and colleagues who by their sympathy, their authority and experience, have helped and encouraged me, especially to Mr. Louis Vierne, the celebrated organist of N. D. of Paris; to Mr. Joseph Bonnet, our esteemed director of the Gregorian Institute, the distinguished organist of Saint Eustache, whose tribute can be read elsewhere; to Mr. Tournemire, organist of Sainte Clothilde and professor at the Paris Conservatoire; to Mr. Georges Jacob, organist of the Société des Concerts du Conservatoire; and, finally, to Mr. Jean Huré, the eminent musician who recently created the periodical "*L'Orgue et les Organistes*" as a link between organists and which should be known to all.

May this work, in however small a measure, contribute to a better rendering of the liturgical Chant and thereby to the dignity and splendour of the Divine Office.

Paris, July 1925.

H. P.

<sup>1</sup> In *La Musique d'Eglise: Notes sur le rythme grégorien considéré du point de vue musical*.

In *L'Orgue et les Organistes* (91, rue d'Illiers, Orléans): *L'accompagnement du chant grégorien*; 1. *Des rapports entre l'accent tonique et la place des accords*; 2. *L'harmonie modale* (1924, July, August and September Nos.). In all these articles, the theoretical aspect of the question is more fully presented and discussed than in the present treatise.

<sup>2</sup> The Italian text goes as far as to say that the author is "*ingenuo*" (childish) to have tried to formulate such general rules.

LETTER FROM THE REV. DOM ANDRÉ MOCQUEREAU O. S. B.

Saint Peter's Abbey, Solesmes.

MY VERY DEAR FRIEND,

*I had firmly resolved never again to write letters of recommendation for authors of methods on Plainsong accompaniment, and behold, in spite of my resolution, here I am, abandoning reserve and giving way to your affectionate solicitation. If I do so, it is because, everything considered, yours is a very special case, and my gratitude compels me to yield to your request.*

*How indeed could I refuse to do so? Your treatise is the first work to appear under the auspices of the Gregorian Institute; it is a summary of the teaching given by you during the first year of our young school's existence to a group of chosen and enthusiastic students. Such eagerness to face public opinion delights me; it is a guarantee of the value of your teaching and testifies in favour of the musical education provided by the Gregorian Institute. Such admirable confidence undoubtedly calls for congratulation, encouragement and thanks, especially from Solesmes, whose theories on rhythm and harmony are set forth with such perfect clearness and exactitude in this, the literary first fruit of our young institute.*

*I have spoken of theories concerning rhythm, and, unquestionably, yours are those of Solesmes, but you have made them so completely your own that in speaking of them your manner has been quite personal. As a modern musician you have been able to put our rhythmical doctrine within the reach of other modern musicians by speaking in their own language and have supplied proofs of this doctrine in examples taken from modern music itself.*

*As to your theories concerning harmony, I must own that I am less competent to judge, the more so that controversy is raging at the present moment between different schools of harmonists; but what reassures me and prompts me to praise and encourage you is your complete agreement with Dom Desrocquettes, whose beautiful and discreet accompaniments I hear every day at Solesmes.*

*You are thus in complete agreement with Solesmes, and, in making known my approval of your treatise I am yielding more to my own sense of gratitude than to your kind request. I, therefore, wish this vigorous child of the Gregorian Institute a favourable reception and complete success, not only in the circle of your pupils, but throughout the whole musical world, which too often needs to be enlightened on the question of Plainsong.*

*Your most grateful and devoted*

ANDRÉ MOCQUEREAU  
O. S. B.

Feast of the Visitation of the B. V. M. 1924

LETTER FROM MR. JOSEPH BONNET,

*Director of the Gregorian Institute and Organist of Saint Eustache.*

Paris, May 16th. 1924.

MY DEAR FRIEND,

*My most sincere congratulations on your treatise on the accompaniment of Plainsong. You have not been afraid to go to the root of this extremely difficult problem and have solved it most happily in your treatment of rhythmical, modal and harmonic questions. I am delighted to see in print the admirable teaching which you have given our pupils of the Gregorian Institute.*

*Your work will be of immense service to the cause of Plainsong, which we all have at heart and wish to serve for the glory of God and of His Church and for the good of souls.*

*Yours very cordially.*

JOSEPH BONNET.

AN APPRECIATION BY MR. LOUIS VIERNE,

*Organist of Notre-Dame of Paris.*

*Mr. Potiron's treatise on the accompaniment of Plainsong is of quite peculiar interest; it is the first time that a professional musician deals with the subject and he has done it in masterly fashion. The chapters dealing with rhythm, with modality, and with harmonization suitable to this modality are the work of a man who is not only a specialist in Plainsong but also an artist for whom music has no secrets. We could hardly expect anything less from the able choirmaster of the Basilica of the Sacred Heart, Montmartre, after having heard his beautiful Mass for two organs and choir, given on Easter Sunday. Organists who aim at consistency will have before them a first rate work and one whose closely packed material will encourage them to think to good purpose.*

LOUIS VIERNE,  
Organist of Notre-Dame, Paris.

## SECOND EDITION

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A LETTER FROM MR. MARCEL DUPRÉ,

Organ Professor at the Paris Conservatoire.

Meudon, August 1st. 1926.

MY DEAR FRIEND,

*It is a real pleasure to me to send you my most sincere congratulations on your new "Treatise on the accompaniment of Plainsong". You have succeeded in always bearing in mind the musical aspect of the question and that is what gives value to your work.*

*Your idea of fusing the study of harmony with that of counterpoint is excellent and I do not doubt but that your book will give very valuable help to young organists.*

*Once more, my hearty congratulations.*

*Cordially yours*

MARCEL DUPRÉ.

## SECOND EDITION

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The favourable reception given to this book, but, above all, the desire to render this treatise more complete, more lucid, and, in a word, as perfect as was within my powers, have made it seem a duty to rewrite it entirely. The general spirit, the fundamental ideas, and the plan are the same, but they are set forth differently. Numerous paragraphs have been added and the text is strewn with examples, the absence of which had been unanimously deplored; discussions and documentation have now been made as full and elaborate as the compass of the book will allow.

Part I is novel in that it gives a summary of *exclusively modal* counterpoint; this has proved a less difficult task than I had anticipated. The pupil who conscientiously goes through the given exercises will find that he has nothing to reject when he comes to accompany the chant. All the rules given aim not only at correct and well written composition but at making clear, as far as possible, the difference between Plainsong harmony and modern harmony — or, more exactly — harmony as taught by Rameau; this applies even to diatonic modern harmony, in which the attraction of the leading note towards the tonic is the essential feature. The pupil is thus almost unconsciously led on towards the accompaniment of Plainsong. Moreover, no methods of writing have been neglected, even among the most modern, which could be adapted to ancient modality.

The principal advantage, for any serious work, of this combined study of counterpoint and harmony over other empirical methods, too often used in schools, has been questioned only by certain ignoramuses who, never having taught or learned anything themselves, prefer rapid and inaccurate solutions to sane logic, who string together chords prepared beforehand with no thought for the correct guidance of parts. To this work, especially, the maxim "go slow, go sure" must be applied, for only thus can a certain measure of progress be achieved and the way to further improvement be left open.

In Part II, on rhythm, clearly defined rules give full and practical development to certain ideas, which had hitherto only been outlined. This part was, as I had expected, more or less appreciated according to whether the reader was Solesmian or not. A number of musicians, however, some of them very distinguished, who are not specialists in Plainsong, having heard me expound these theories or having read them, as developed in the first section of this treatise and in certain articles, gave me their whole hearted approval, especially in connection with the analysis

of examples from classical music and the underlying principles which this analysis reveals.

Two articles, however, attracted my special attention because they were published in non-Solesmian (should I say *anti-Solesmian*?) reviews. The "*Tablettes de la Schola*", not without a touch of irony, which I could hardly fail to notice, expresses the opinion that the Solesmes doctrine, as I have presented it, provides a meeting ground. The same shade of opinion is to be found, this time without irony, in an article by the Reverend Dom David O. S. B. in "*La Revue du Chant Grégorien*". Appreciation of this kind is, of course, given with a certain amount of reserve, but, I confess that if this work did no more than dispel some misunderstandings that divide students of Plainsong into two great camps (mensuralists not included) I should be rewarded for my labour.

Part III, on modality, has received the fullest development on new lines. References, if not complete, are at least sufficient to give support to the principles and rules laid down; the argument has been set down more clearly than hitherto, with more order and precision and a larger number of examples. Many colleagues and friends have expressed their regret at the rejection of E minor as the final harmony in the third and fourth modes; I regret it myself, as it deprives us of very beautiful harmonic successions. If, in Plainsong, these two modes were what they are generally supposed to be, and if their final notes played the same part as the final notes in other modes, we should all agree; but alas! we must face facts and the fact here is that these modes are not really modes on E; and, as the principle of our accompaniment is merely to follow the melodic outline, of which it seeks only to synthesize the elements, we cannot admit of an *a priori* principle for the cadences of these modes. We are free to compose or improvise in the true mode of E, but Plainsong modes must be accompanied according to the elements which they contain.

The principle of three keys or modal groups has been attacked chiefly by those who had already made up their minds upon the subject. Once again, Plainsong modality is not a question of theory but of fact, and yet..... we (Dom Desroquettes and myself) are reproached by "*L'Informateur de Lyon*", if I am not mistaken, with having evolved an *empirical* method. By all means if by "empirical" is meant "based on experience" and "scientific", but, from the context, it is plain that something very different is implied. We are accused of providing ready made formulae, the kind of recipes one finds in so many methods, without any real foundation, based only on hypothesis! One would think that the critic had read nothing or understood nothing. That he should refuse to admit our views, well and good, but that he should see in them a mere trader's trick for guiding the steps of the young organist strikes us as rather extraordinary. We should, I suppose, be very grateful even for the

patronizing recognition of such a prince — at least — in the world of Plainsong harmonists.

For others, research is limited to the following: to determine the origin whether eastern, western, southern, Greek, Byzantine, Syriac or other, of Plainsong modes; to establish the nature of the scales from which these modes sprang; and, finally, to explore the theoretical treatises of the Middle Ages, which are admittedly obscure.

But, as a matter of fact, this is only where the work begins, for we have still to discover whether Plainsong, after having come under the many influences which have been attributed to it, did not develop into an art peculiar to itself, with its own aesthetic laws and even its own peculiar technique of composition.

Let us imagine that a thousand years hence, someone should wish to write a treatise on French music in 1926, and let us suppose that he consult the official text books of our time. In these he will find: that the first beat in every measure was necessarily emphasized by an accent; that there were only two modes: the major and minor; that rigorously defined chords could only give rise to certain combinations of sounds etc., etc.. He will then apply these principles to the music of Ravel, to mention only one name which is already a classic and a composer who is modern without being revolutionary, and he will find, to his amazement, that the entire theory, based as it is on earlier examples, and, moreover, faulty on certain points, has to be recast, even with regard to modality and harmony. It should also be remembered that theoretical studies, as presented in our textbooks today, follow musical evolution far more closely than was the case in the Middle Ages (we speak of the teaching of musical theory and harmony by, for instance, Marmontel and Dubois).

Historical research on Greek and Oriental modes is of the highest interest, especially when conducted by a scholar, such as Mr. Maurice Emmanuel who is at the same time a first, class musician. But, whatever be the sources of Plainsong, the important point to my mind is to know what it actually became at a given point in its evolution. This we shall find out by studying the melodic text from a musical point of view. If this study reveal a definite modal system and even a method of composition, how can we avoid basing the laws of accompaniment on such a discovery?

The fact that melodic formulae and even entire pieces are written in exact transposition, on three different scales, in three different tonalities is of supreme importance. The law of such "equivalents" deserves at least to be studied; our opponents do not seem to have made the slightest allusion to it.

Certain expressions used by Dom Desroquettes needed, no doubt, to be explained and even commented upon. A reader seeking only for truth would have understood them; others have found an easy victory by distorting their meaning.

It is also unfair to affirm that our theory has no weight from the harmonic point of view<sup>1</sup>. We need only point to the very practical rules which are derived from it. These rules will no doubt be criticized as regards the use or omission of B natural or B flat or of E in the harmony, which use or omission is exactly what the study of the musical text itself indicates.

Again I read, with secret satisfaction, that we are accused of not distinguishing between a tonic and a final note. Now it is on this very distinction that the whole discussion about final chords in third and fourth modes is based. What a privilege to have such detractors! Do they not also reproach us with always avoiding the proximity of F and B natural in the same harmony? If they refer to B, the leading note of our modern major, which calls for the tonic, they are right; but they should read our examples and try to grasp our principles for there are many different ways in which these two notes can be brought together.

It is much easier to show that a harmonic third was not abhorrent to mediaeval harmonists (any more than it is to us) than to prove the rigorous homogeneity of Plainsong scales. Our critics, on the other hand, are good enough to allow that our harmonizations are well written, so we must not complain.

But, when all is said and done, science alone is not enough for the right analysis of a Plainsong melody with a view to accompanying it and for the deduction of the laws governing this accompaniment; musical instinct, developed and formed by long training in the practise of composition and the analysis of musical masterpieces, seems to me even more necessary. At the same time, the writing of such accompaniments, *as an exercise*, may be of the greatest value to a composer, even though he need never actually accompany the chant; it will enrich his vocabulary, give him ease in composition and may possibly lead to the discovery of real harmonic treasures. We need only read the musical compositions for voice or organ of many real or supposed Plainsong scholars to be convinced of this; and, from a musical point of view, one hardly likes to speak of the majority of Plainsong accompaniments.

We look forward, then, to a discussion of our theories and of their proofs, which, since we speak of an admirable form of music, will be conducted in a spirit of true musicianship; and we venture to hope that those who take part in it will first have had the time and the courage to learn the language of this music.

To the many tributes published with the first edition have been added favourable articles by the Rev. Dom Maur Sablayrolles, by

<sup>1</sup> Some, though not all of the criticisms to which I refer, come from the Rev. Dom Jeannin O. S. B.; other people have written or spoken in a similar vein. Because this simple allusion is no answer to these critics I have purposely refrained from giving further details.

Jean Huré, by J. de Valois and others, and many congratulatory letters from colleagues. Space forbids my publishing these, but, with his consent, I am inserting a letter of appreciation from Mr. Marcel Dupré, organ professor at the Paris Conservatoire, because it shows that our official educational authorities are interested in such questions. Let us not forget that good "Maître Gigout" was one of the first and most ardent champions of Plainsong modes. To all I offer my thanks for their valuable help.

I must also thank the firm of Desclée of Tournai for allowing me to use examples and take references from two pamphlets, which I have written in conjunction with Dom Desrocquettes. These are: 1) *Vingt-neuf pièces grégoriennes, harmonisées, avec des commentaires rythmiques, modaux et harmoniques*; 2) *La théorie harmonique des trois groupes modaux et l'accord final des troisième et quatrième modes; liste des principales équivalences mélodiques*.

Most of the Plainsong examples have been taken from the first pamphlet. I have modified them slightly to fit them into the order of studies; the list of equivalents, compiled by Dom Desrocquettes, is taken entirely from the second pamphlet.

H. P. October, 1926.



## PREFACE TO THE ENGLISH EDITION

BY DOM H. DESROCQUETTES, O. S. B.

Plainsong is the official music of the Church. No other music, even if its artistic and religious qualities make it worthy to be sung in church, can lay claim to this title. For this reason Plainsong occupies a peculiar position, so that we not only give it our preference but make it the object of a veritable cult.

And yet a number of people still look upon this attitude as "a pious exaggeration". There are many (shall we say the majority) who, far from preferring Plainsong to other religious music, actually regard it with distaste. They either declare openly or think secretly that nothing is more depressing and tedious or better calculated to keep people away from church.

There are many, no doubt, who have no liking for Plainsong because their ears are accustomed to profane music; their nerves feel the need of sensations which the purely spiritual music of the Church does not supply. To hear and understand Plainsong usually requires some education, some preparation. But is not this so with all things? On the other hand, it is only fair to attribute this lack of appreciation to the horrible way in which Plainsong is too often rendered, and which is as far removed from art as it is from prayer. But, once give to Plainsong its true beauty, and vivify it with the spirit of prayer and you will find that those least prepared to do so (except perhaps from the musical and artistic point of view) will admire its austere beauty. How often have we not seen this happen at Solesmes! If then artists and musicians declare, even on a first hearing, that Plainsong is great art and worthy to be placed on an equal footing with all other musical art, we may readily believe them.

But we, as children of the Church, can do far better than trust to the appreciation of musicians. The Church has given us this Chant, we should receive it from her hands as a precious gift, containing a treasure which it behoves us to discover and enjoy. For what is the purpose of the Church in making use of music? Her general aim is to sanctify us by transforming us into Our Lord Jesus Christ, with the object of giving through the Son all praise to the Father. This she does throughout the liturgy. Continuing the work of the Incarnation, she uses material elements, sanctified by her and by Our Lord's divine institution, in order to transmit or to signify both grace and doctrine. The Mass, the Sacraments, the Office, Sacramentals, ceremonies, liturgical arts,

all these help to sanctify us, either by the grace contained in and transmitted by the sacraments, or by virtue of the liturgical text, which we understand and meditate upon, or again by the feelings awakened in us by all this artistic and religious beauty which makes up the exterior of the liturgy.

In order that the Church may attain her end, which as we have said is to sanctify us, her plan must of course be carried out; in order that all things may be done as she has ordained, she must be obeyed. As a mother, guided by the Holy Spirit, she has, in fact, conceived a whole scheme of divine education for her children. If her sanctifying action is to be felt, this scheme must be put into practice. In other words, the Sacraments must be administered according to the rubrics of the Church and received with the appropriate dispositions. Sacred texts must be read and sung in a fitting manner and with understanding; all the ceremonies and arts, which are as it were the framework of the liturgy, must be performed in obedience to the spirit and the prescriptions of the Church, with a lively faith and a deep sense of the supernatural.

Our right attitude should therefore be to understand what the Church means by the liturgy as a whole and in its every detail; and we should carry out her wishes in a spirit of obedience, confident in the hope that we shall thus achieve the result that the Church has desired—our own sanctification and that of our fellow creatures... "*ad laudem gloriæ suæ*". This attitude may be summed up as the love of perfect beauty which promotes a desire for perfection in the very smallest details in the service of the Lord: "*Domine dilexi decorem domus tuæ et locum habitationis gloriæ tuæ*"—"I have loved, O lord, the beauty of thy house; and the place where thy glory dwelleth" (Psalm XXV).—"Pulchritudinis studium habentes..." "studying beauty..." as has also been said of the patriarchs (Ecclesiastes, chap. XLIV). Surrounded by beauty, the children of the Church are thus gradually transformed in the same way as the children of a well-ordered family who, from the mere fact of living in an atmosphere of refinement and virtue, acquire a certain standard of excellence in knowledge, in good manners and in the conduct of their lives. "*Nos vero omnes revelata facie gloriam Domini speculantes, in eandem imaginem transformamur a claritate in claritatem tanquam a Domini Spiritu*".—"We all beholding the glory of the Lord with open face are transformed into the same image from glory to glory, as by the Spirit of the Lord".

This is the setting to which Plainsong belongs and to which it must be restored if we are to grasp its meaning to the full. The Chant will then act as a conveyor of the texts of the sacred liturgy, as a means of uniting us with our fellow creatures in the public and social act of worshipping God, and finally, as a sensible element, chosen and meted out with wisdom in order that divine truth and beauty may find a way into our inmost hearts.

But once again, if Plainsong is to play its part in a fitting manner and as desired by the Church, it is essential that it should be fittingly rendered. In the first place it must be sung well, secondly with ensemble, and thirdly, as the Church desires that it should be sung i. e. in the *authentic* and *traditional* manner.

Our fathers were fully aware of the importance of the Chant and of the care required for its traditional rendering. The manuscripts are a proof of this. In the golden period of the Chant, the Xth. century, manuscripts were numerous throughout Christendom. At that period, the melodies were noted down in a very primitive and imperfect manner, without the use of the staff, which was introduced gradually and at a later date. Using only neumatic signs: the accents of the Latin grammarians (acute accent, grave accent, strophicus), the manuscripts merely indicated the ascending or descending movement of the melody but did not show the pitch of sounds or the intervals between them. They merely helped Cantors or singers to recall the melodies which they were obliged to know by heart. It is said that it took a cantor at least ten years thoroughly to master the contents of the Gradual and Antiphonary. The care taken in thus faithfully preserving the melodies, even in imperfect writing, and still more in memorizing them, shows how greatly this treasure of the liturgical chant was valued. It was already a tremendous achievement to have thus piously preserved the *melodic tradition*, which we find identical in all Christendom in four or five different schools of manuscripts, each with its own peculiar writing. But this was not all. In each of these four or five schools there are some manuscripts containing, not only certain additional signs which help to make the melody clearer, but also a large number of rhythmic signs which are introduced with all possible care and thus serve to maintain the rhythmic as well as the melodic tradition. These are the so-called rhythmic manuscripts.

These traditional and authentic indications of rhythm, which are the same in substance in the various rhythmic manuscripts, bring out the peculiar character of Plainsong and render possible an objective and traditional interpretation of each piece. They should not be neglected. With the help of these manuscripts we can reconstruct in a large measure the authentic interpretation as given either by the composers of the melodies themselves or at any rate by the whole Church during the golden age of Plainsong. Since some kind of rhythmic interpretation is necessary for the rendering of any melody, it will be only natural if before turning elsewhere we seek in the manuscripts for the traditional rhythmic interpretation, just as it is to them that we looked for the restoration of the authentic melody.

To act otherwise would be to fall into the error of personal interpretation. And, since on this question of rhythm the most widely opposed hypotheses can be (and have been) put forward,

there would soon be a recurrence of what happened when, as the manuscripts laid more and more stress on the notation of the melody, its rhythmic interpretation was allowed to lapse completely. "The notation was not sufficiently clear to secure a uniform interpretation from various teachers, hence came ever increasing differences as to the proper rhythmic divisions; the old oral tradition broke up into a multitude of different streams and soon entirely disappeared, leaving behind it nothing but the fearful hammering performances which brought Gregorian Chant into general disfavour and to final disaster". (*Nombre Musical Grégorien*—D. Mocquereau, Tom. I, Introd. p. 15).

The remedy, therefore, lies in returning as completely as possible to tradition, both as regards rhythm and melody. But the rhythmic indications of the manuscripts are not in themselves sufficient to establish in every detail the precise rhythm of our Plainsong pieces. These traditional signs require to be interpreted and supplemented. How is this to be done?

1. By Paleography or the study and comparison of the various manuscripts, or of the same melodic passages in the different pieces in which they occur. The manuscripts throw light on each other and we thus get the interpretation of tradition itself, which is undoubtedly the best.

2. By taking the laws generally governing music as our guide, without however losing sight of the paleographic indications; as for instance, in the interpretation of pauses, and in the markings of the steps of the rhythm, in order to determine the movement and the style of a piece. If Plainsong, belonging as it does to tradition requires a faithful return to the past (paleography, manuscripts) it is at the same time a living thing to which, unless the contrary be proved, the universal laws governing the art of music in its simplest and most natural form should be applied.

By applying these principles the Solesmes school claims to give to the melodies the actual rhythm which the manuscripts indicate or suggest, or else the rhythm which from the musical point of view is suggested by the melody itself; or, finally, when nothing is clearly indicated, some practical solution is adopted. For, Plainsong is not only or primarily a matter of art or scholarship but also and above all practical liturgy for the use of all. This being so, in doubtful cases a solution is adopted which without being imposed on anyone is nevertheless based on reasonable data.

Such are the main principles of the aim and the methods of the Solesmes school and I hope that they so harmonize as to make for unity. Let Paleography and music join hands in order to revivify these melodies which must remain faithful to their tradition and at the same time be subject to the laws which govern the purest of all the arts.

Once these principles have been understood their application may, quite often, be open to discussion. There may be occasions

when closer examination of a manuscript or the more exact interpretation of a musical law may suggest solutions other than those which have been adopted. In this work every competent musician or paleographer should have something to say, and thus make for a truer interpretation of both melody and rhythm. I hope I have made it clear that the principles of restoration on which the Solesmes school bases itself are always as objective as possible, and this is the main point to bear in mind.

Having spoken of the melodies, that which remains to be said of their accompaniment will be brief. As with the interpretation of the melodies, so with their accompaniment, the great aim of Solesmes has been towards objectivity. The ideal would, of course, be the absence of all harmonizing, but if there is a harmonized accompaniment it should add as little as possible to the melody. It must endeavour to express in harmonic language, to transpose or project, as it were, into the harmonic order the elements given by the melody itself, that is to say its rhythm and latent harmonies. Nobody, therefore, will be surprised to find clear and strict rules regarding the permissible and most effective placing of chords, and regarding their rhythmic nature, that is to say, the influence which the general rhythmic line should exercise upon their choice. So much then for what concerns rhythm. Concerning the modal point of view, some are of the opinion that complete freedom should be allowed. We believe that here again the melody should be mistress, as much as, perhaps even more than in regard to rhythm. Others again speak of accompanying "according to the modes", which is easy enough to say... But in order to follow the melodies step by step and make them say no more than they do, it has seemed to us that a different exposition of the modes was required from that which is usually given. This explains our modal theories. These theories do not pretend to be a personal interpretation but are, on the contrary, the inevitable outcome of a faithful, logical and impersonal analysis of the data.

The *style* of our accompaniments is undoubtedly more personal. This is only natural and indeed unavoidable. But here again we have long felt that the suppleness gained by a right use of dissonances and of all the bold devices of modern counterpoint (within the strict limits of modal and rhythmic laws) was excellently suited if not necessary for reproducing in the accompaniment the suppleness of the melody and for capturing the general rhythmic line in a perfectly flowing movement. So that we are easily inclined to believe what we recently heard said, namely, that this style of accompaniment, in its main characteristics and as a whole, is the one which best suits the style of Plainsong as understood by the Solesmes school.

After having said ourselves that Plainsong is first and foremost liturgy and prayer and only secondly an art and science, it may shock some people to hear Solesmes putting forth and discussing

theories, laying down laws, in short devoting so much print to the technique both of the Chant and its accompaniment. Is this not complicating things unduly and are we not deviating from the Church's true aim regarding the Chant? Not in the least. No doubt excesses must be guarded against; I need only refer to those who give art or science as a reason for no longer wanting to sing at all. There are others who in singing think only of the music, and that again is not Plainsong. "Prayer and music so combine as to make one art. The music must pray, the prayer must sing, otherwise the prayer is forgotten in the detached beauty of the music or the music is forgotten in the detached beauty of the prayer".

Whether we wish it or no, Plainsong or, as it has been called, "Prayersong", is at the same time true prayer *and* musical beauty. The two are so united, their marriage is so real that they cannot be separated. Neglect the prayer and you will no longer have true beauty; neglect the beauty and the prayer will suffer. "They must become one, merged in a tone marriage of the Spirit, so that the test which applies to the art as a whole is found in the simple formula "*lex orandi, lex cantandi*"<sup>1</sup>.

There is no need for me to introduce my friend Mr. Potiron to readers in Great Britain, Ireland, or even the United States of America, for his name and his work are so closely associated with the name and work of Solesmes as to make such an introduction superfluous.

A musician at heart and by profession, Mr. Potiron, from the very beginning of his musical career, was keenly interested in Gregorian Chant, but his disagreement with certain points in the Solesmian views, notably those concerning the independance of verbal accent and rhythmic ictus, had placed him on the side of Solesmes' opponents<sup>2</sup>.

But he was a man of the utmost sincerity, desirous only of knowing and of following the truth. In 1922 he visited the Solesmes monks (then in exile at Quarr) and, having heard the Solesmian treatment of the Latin accent, he declared it to be in complete conformity with the laws generally governing music. But he still had to convince himself that this Solesmian treatment of the Latin accent which was musically right, was at the same time in keeping with the nature of the Latin accent. His whole mental outlook on the question of Gregorian rhythm required to

<sup>1</sup> In 1912, he published a "Treatise of accompaniment according to the pure Vatican edition", in which he expressed his inability to agree with Solesmes.

<sup>2</sup> Father Burke, vice-president of the Society of Saint Gregory, in a paper read at the First Congress of the Society, held at Blackfriars, Oxford, Aug. 6-9, 1929.

be adjusted to the new knowledge which he took away with him from Quarr, and he determined to carry out this work of reconstruction alone before returning to see Dom Mocquereau. When they met again, Mr. Potiron at once expressed his complete agreement with the master's teaching and promised him his active collaboration. And active indeed this collaboration has been. Shortly after this, Mr. Potiron was appointed professor of accompaniment at the Gregorian Institute in Paris, and, for a while, he devoted the greater part of his time to work on the Chant. The following were published in succession under his name: Monographie V: *L'accompagnement du Chant Grégorien. Des rapports entre l'accent et la place des accords.* Monographie VI: *La théorie harmonique des trois groupes modaux et l'accord final des troisième et quatrième modes.* Monographie IX: *La modalité grégorienne.* Then a Treatise on accompaniment, the first edition appearing in 1925, and a second entirely revised edition, of which the present book is a translation, in 1927; to say nothing of his accompaniments for the Feast of Christ the King, for the Feast of the Blessed Sacrament, or of numerous articles which appeared in the *Revue grégorienne* and various other periodicals dealing with religious music.

I have not yet spoken of our personal collaboration. I have since confessed to him that in the early days I hardly believed in it as a possibility, so different had been our approach to the subject—mine, exclusively Gregorian—his, primarily musical. But, here again, Mr. Potiron's sincerity and broadmindedness brought about almost from the first this miracle of complete agreement, which has enabled us to work together. Examining every detail of rhythm or mode, as much from the Gregorian as from the musical point of view, we were able in a few years to lay down definite principles of accompaniment. The theory of these is expounded in the publications already mentioned, and their practical application is given in published accompaniments such as "The accompaniment of the Psalms", the "Kyriale", the "Office of the Dead", etc., and in a book entitled "29 harmonized Gregorian pieces, with a commentary on their rhythm, modality and harmonization". This last book is, as it were, the necessary complement to the present treatise on Plainsong accompaniment<sup>1</sup>.

This brief survey of Mr. Potiron's activities will, we feel sure, arouse the interest of those to whom he may still have remained unknown. It may be truthfully said that he has become an authority in the Solesmes school, especially in the way he has adapted Dom Mocquereau's teaching to the mind of the lay

<sup>1</sup> All the books mentioned here are published by Desclée, Tournai, excepting the following which are published by H. Hérelle et C<sup>ie</sup>, 16 rue de l'Odéon, Paris: the French edition of this "Treatise of accompaniment"; "29 harmonized Gregorian pieces", and the accompaniments for the Feasts of Christ the King, and of the Blessed Sacrament.

musician. Thus, having admitted the truth of the Solesmian principles, he has become one of their most ardent defenders.

For my part, I have always maintained and do so again, that without Mr. Potiron's collaboration I would never have ventured to give to the public what I seem to have discovered in the Gregorian melodies and the conclusions as regards their accompaniment to which this led me.

As a friend, it is with the greatest pleasure that I once again place my gratitude on record.

FR. JEAN HÉBERT DESROCQUETTES, O. S. B.

Quarr Abbey.

Feast of Saint Gregory the Great, 12<sup>th</sup> March, 1933.

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## ORDER OF STUDY TO BE FOLLOWED IN THE ACCOMPANIMENT OF PLAINSONG

- I. — 1. Simultaneously: a) Two part counterpoint (Part I, chap. I up to § 4); b) Rhythmic analysis of Plainsong pieces (Part II, chaps. I and II up to § 3, page 79, but especially: *Practical conclusions*, page 75);
  2. § 4, of chap. I, with the exercises on Plainsong which follow;
  3. § 5, (syncopated counterpoint) which may be taken at the same time as 2.
- II. — 1. Simultaneously: a) Three part counterpoint (Part I, chap. II up to § 3); b) Study of Plainsong rhythm (Part II, chap. II, § 3, with the accompanying exercises);
  2. a) Syncopated and florid counterpoint (Part I, chap. II, § 3); b) Study of feminine rhythm (Part II, chap. II, § 4);
  3. a) Part II, the whole of chap. III (rhythmic rules); b) Written Plainsong accompaniments in three parts, within the prescribed limits.
- III. — Simultaneously: a) Four part counterpoint (Part I, chap. III, Pages 38 to 40); b) Part III, chap. I, especially § 6: modal analysis rules (analysis exercises).
- IV. — When the study of Part I (pages 40 - 51) and of Part III, chap. II (especially § 1) has been completed, Plainsong pieces should be harmonized in the following order (the student should refer to Part III, chap. III, chap. II § 2, 3, and 4, also chap. IV, but should not attempt transposition until he is sure of his untransposed writing):
 

Pieces in the 1st, 2nd, and 6th modes (with finals D and F) without B flat or natural.

Pieces in the 4th mode, with final E and no B flat or B natural.

Pieces in the 1st, 2nd, and 4th modes with B both flat and natural.

Pieces in the 5th and 6th modes, with final F and constant B flat.

- Pieces in the 5th and 6th modes, with final F, and B, flat or natural.
- Pieces in the 1st mode with constant B natural; in the 4th mode id.; in the 5th mode id.
- Pieces in the 1st and 2nd modes with final A.
- Pieces in the 6th mode with final C (with a melodic B flat).
- Pieces in the 3rd mode with final E, in the 8th mode with final G.
- Pieces in the 7th mode: a) entirely in group I; b) covering the complete scale.
- Pieces in the 3rd and 4th modes with final B, and in the 4th mode with final E and essential B flat (transposed mode in B).
- Pieces in the 3rd and 4th modes with final A.
- Study of Psalmody: a) preparatory rhythmic exercises; b) complete accompaniments.

## PART ONE

### Elementary exercises in modal harmony.

#### CHAPTER I

##### Two-part counterpoint.

##### § I. — GENERAL DIRECTIONS.

##### NOTE AGAINST NOTE COUNTERPOINT.

##### I. — *Intervals.*

We know that the diatonic scale consists of five whole tones and two semitones distributed in the following manner: C — D, whole tone; D — E, whole tone; E — F, semitone; F — G, whole tone; G — A, whole tone; A — B, whole tone; B — C, semitone.

Although the theory of intervals belongs to the most elementary musical teaching, we think it may be useful to recall the following.

Two *conjunct* degrees of the diatonic scale are said to be at an interval of a *second*; this second is *major* when the two notes are at a tone's distance one from the other and *minor* when the distance is that of semitone.



Two notes separated by a single degree are said to be at an interval of a *third*; this third is *major* when the two notes are at two whole tones' distance one from the other, and *minor* when the distance is that of one whole tone and one semitone.



Then, we have the interval of a *fourth*: *perfect* when it consists of two whole tones and one semitone, *augmented* when it consists of three whole tones.



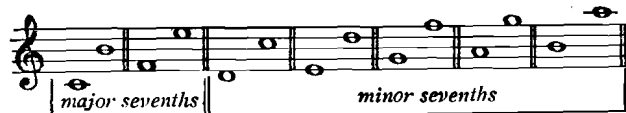
The interval of a *fifth* is said to be *perfect* when it consists of three whole tones and one semitone; and *diminished* when it consists of two whole tones and two semitones.



The interval of a *sixth* is said to be *major* when it consists of four whole tones and one semitone, and *minor* when it consists of three whole tones and two semitones.



A *major seventh* contains five whole tones and one semitone, a *minor seventh* four whole tones and two semitones.



Finally, two notes of the same name, of which one begins and the other ends the same scale, are said to be at an interval of a *perfect octave*.



Intervals greater than the octave are a *ninth* which is an octave plus a second, a *tenth*, which is an octave plus a third etc...

The following should be noticed:

1) That intervals are named beginning with the *lower* note: thus the third of C is E and not A, and the interval D — F is a third and not a sixth.

If I wish to begin by naming the upper of two intervals I should say, for instance, that the *lower* sixth of F is A.

2) That the mere names of the two notes which make up an interval determine the interval but without qualifying it. Thus F — B is always a fourth, even when the F is sharp and the B flattened; F — C flat, which on the keyboard is the same as F — B, is nevertheless a fifth.

Once the interval has been named, the qualification of major, minor, augmented, diminished, may be added, according to the number of tones and semitones which it contains<sup>1</sup>.

3) An interval is *inverted* by setting its lower note an octave higher or its higher note an octave lower. Thus a third is the inversion of a sixth; a seventh the inversion of a second; a fourth the inversion of a fifth and *vice versa*.

4) When two notes, which constitute an interval, are sounded in succession, the interval is said to be *melodic*; if they are sounded simultaneously the interval is said to be *harmonic*.



## II. — General rules for writing.

1. *Melodic intervals*, the octave excepted, which are greater than a minor sixth, are never allowed. All augmented or diminished intervals are forbidden (augmented fourth or tritone, diminished fifth).

The following is an example of bad writing so far as melodic intervals go:



In working out the given exercises, care should be taken to make the melody *sing* naturally; repeated leaps and the frequent return of the same formulae and the same notes should be avoided.

<sup>1</sup> An interval said to be major becomes augmented if its upper note is raised or its under note lowered by a chromatic semitone: C — E, major third; C — E sharp, augmented third. An interval said to be minor becomes diminished if its upper note is lowered or its lower note raised by a chromatic semitone: B — A, minor seventh; B — A flat, diminished seventh. The same applies to intervals said to be perfect: C — G, perfect fifth; C — G sharp, augmented fifth; C — G flat, diminished fifth. In diatonic music, which alone concerns us here, among augmented and diminished intervals, only the augmented fourth and diminished fifth are used as defined further on.



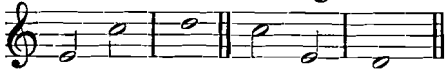
A wide ascending interval may easily be corrected by a descending conjunct interval



This applies equally to a descending interval



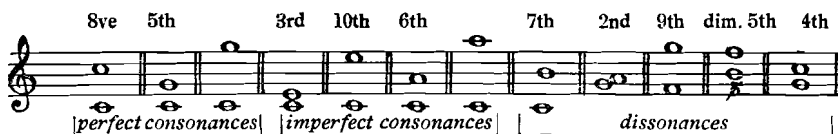
But the following:



should be avoided.

No alteration in the degrees of a scale is allowed: no flats or sharps may be used as *accidentals*; no flats or sharps in the key signature may be annulled.

2. *Harmonic intervals* are said to be either *consonant* or *dissonant*. The perfect octave, the perfect fifth are said to be *perfect consonances*; the major or minor third and sixth are said to be *imperfect consonances*. All the other intervals are said to be *dissonant*; these are: a second, a fourth (even the perfect fourth<sup>1</sup>), the diminished fifth, the seventh (the ninth is assimilated to the second, and the tenth to the third etc.).



For the time being the student should confine himself to the use of perfect or imperfect consonances. It should be noticed that intervals can be figured by their corresponding numbers: 8, 5, 3, 6, 7, 2, 4; ♯ indicates the interval of a diminished fifth.

3. The harmonic movement of two parts in relation one to the other may be *similar* (or parallel) if both parts ascend or descend simultaneously:



*oblique*, if one ascends or descends, while the other remains stationary:



<sup>1</sup> The fourth is not dissonant in the same way as other intervals; this will be noticed when the formation of chords is being studied. Even when writing in two parts, early composers frequently treated it as a consonance. Nevertheless, beginners, for whom these exercises are intended, should keep to the given rule.

*contrary*, if one ascends while the other descends or *vice versa*:



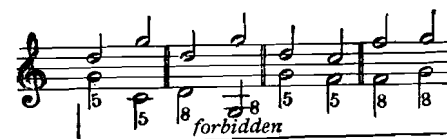
In this connection the following rules should be observed:

1) *Similar motion should lead neither to a fifth nor to an octave:*



These intervals should therefore be the outcome of contrary or oblique motion as shown in the last three examples.

2) Moreover, *two consecutive octaves* or *two consecutive fifths* are prohibited, even in contrary motion, and still more so in similar motion.



The same applies to the repetition of two notes in unison or to two notes in unison followed by an octave or *vice versa*.

It follows then, that when writing in figures, no two fives or eights should follow each other, and again, when five and eight follow each other, the harmonic movement should be verified: movement should not, in such a case, be similar<sup>1</sup>.

<sup>1</sup> Endless discussions have arisen in the attempt to justify such strict rules. Consecutive octaves are proscribed because of their harmonic poverty. To write consecutive octaves amounts to omitting one part which is merely the doubling of another (this doubling process is sometimes intentionally used but not in strict four part counterpoint). Again, by similar motion, this very simple interval is given too much prominence; although in this latter case it should be noticed that the rule is much less strict and will admit later of perfectly legitimate exceptions (in three and four part counterpoint).

As to consecutive fifths, these are said to sound harsh and to give an impression of two tonalities foreign one to the other. This may be true of classical harmony belonging to Rameau's system, in which everything centres around the chords of the dominant and of the tonic; for, in this harmonic system, similar motion leading to a fifth on a degree qualified as mediocre or bad (and still more consecutive fifths) would, so to speak, throw the tonality off its axis. But, in a purely modal harmonic system — such as the one we are considering — this impression (as many modern examples show) does not

3) More than two or three consecutive thirds, or more than two or three consecutive sixths and, in general, more than three consecutive direct movements should be avoided because of the impression of dullness which they produce.

4) Here are, in the key of C (and of course in all other tonalities), two progressions which are unanimously condemned in all treatises on harmony. They are called *false relations of the tritone*.

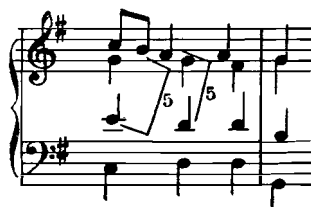


exist at all, because, here, tonal synthesis is very much reduced and every harmonic degree may take on the importance of a passing tonic note. A sequence of fifths (especially in four part writing) might then produce the effect of tonal "decentralization". Nor should we forget that these were the very first harmonies ever used.

Even according to classical theories, a fifth on the chord of the dominant or of the tonic approached by similar motion is good because the qualities which characterize these "good degrees" are actually reinforced by the similar motion. This explains the frequency of the following writing:



But consecutive fifths on the chord of the dominant, approached for instance, as in the following example by a passing note in the soprano, are also to be found — and the case is not a rare one:



(Saint-Saëns, *Tollite hostias*, Christmas Oratorio).

There are also consecutive fifths approached by a semitone:



These do not sound harsh.

Moreover, authors of text books admit that consecutive fifths formed by a succession of chords in root position, moving by thirds or fifths or fourths

In a harmonic system that is based partly on the attraction of the leading note towards the tonic, one can understand that such a progression should be forbidden: in the first example, the B following on the lower F of the preceding harmonic interval should actually play the part of a leading note; this it cannot do because of the fifth E — B; in the second example B rising to C finds itself in conjunction with the note F, which it had seemed to shun in its desire to reach the chord of the tonic. But, in a modal system in which the attraction of the leading note towards the tonic note does not exist, this prohibition loses its *raison d'être*; there is no leading note, therefore, all attraction is absent. We know too that early writers have made very happy use of these formulae.

(F to D; G to C or F to C, etc.) do not sound in the least harsh because of the notes common to both chords.



There remain consecutive fifths in chords in root position moving by an interval of a second.

The similar motion of the two fifths leading towards the chord of the dominant is in no way unpleasant even in the following formulae:



The last example shows two consecutive fifths moving by similar motion to the tonic; this succession is hardly tonal in the classical sense of the word, but is good because the second fifth belongs to the tonic.

It follows, then, that even in the theory of classical harmony, consecutive fifths may be acceptable; everything depends on where they finish. And it must be noticed that the best combination is that in which the fifths are in the bass and tenor, while the soprano proceeds by contrary motion.

We may, therefore, say that in a purely modal system, consecutive fifths in chords moving stepwise are good if used in the way described.

At most their rather hollow sound may be ascribed to their being "doubling fifths" just as there are doubling octaves; but they do possess a certain colour which is not to be found in octaves.

Nevertheless, because of the many pitfalls which lie in wait for beginners, for whom these exercises were written, I have thought it best not to depart from traditional rules in the text of this book.



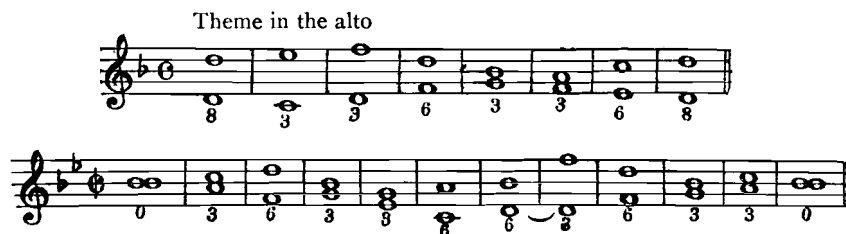
The Hymns: *Veni Creator, Verbum supernum* provide other examples. The fragments chosen should not descend lower than F nor rise higher than E.

Formulae with which to end :

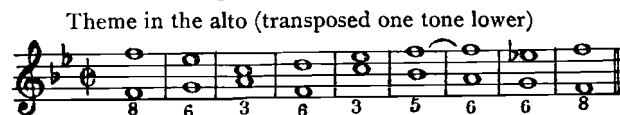


(no C sharp in the mode of D, no F sharp in the mode of G)

Specimen exercises <sup>1</sup>:



Theme below counterpoint :



It will be seen that a note in the counterpoint may be tied and thus occupy two but not more than two measures.

## § 2. — SECOND SPECIES OF COUNTERPOINT OR TWO NOTES AGAINST ONE

When completely familiar with the preceding work, the student should begin the next species of counterpoint which has two notes written against one.

In this species the theme, which, like the first, is written in semibreves, is accompanied by a counterpoint written in minims.

1. — The *first* beat or first note of the counterpoint in each measure must be consonant i. e. an octave, a perfect fifth, a third, or a sixth.

The *second* beat or second minim of the counterpoint in each measure may also be consonant; but it may also be dissonant, that

<sup>1</sup> These examples have been written on one staff only, merely to economize space.

is to say, it may sound an interval of a second, a fourth or a seventh with the theme, of which each note is held over this second beat of the measure. Nevertheless, the harmonic intervals of diminished fifth or augmented fourth must be religiously avoided because, in most cases, their use would result in harmonies quite unsuitable to Plainsong modality.

Dissonances on the second beat are acceptable in so far as they are *passing notes* i. e. when they serve to connect by a step two notes placed on consecutive first beats (by a step is meant a melodic interval of a second).



A. The second beat is consonant, the melody, in consequence, may move freely.

B. The second beat is dissonant; the passing note C connects the D to the B by a step; the passing note D connects C with E (obligatory melodic interval).

C. Here we have an augmented fourth which is perfectly correct but not permissible in Plainsong because the B has the character of a leading note and belongs to our modern C major.

Nor should the dissonance revert to the note which preceded it, as in the following :



(anticipatory note). This ornament will be studied in the following paragraph.

The facility in writing which these devices give the student should make him very particular as to the melodic quality and the variety of his counterpoints.

2. — *Fifths* and *octaves* should be used in accordance with the following rules :

1) The rules concerning a fifth or an octave being reached by similar movement and those concerning consecutive fifths and octaves hold good in second species.

From the first to the second beat the movement is necessarily oblique, since the counterpoint moves and the theme remains stationary, this, then, cannot give rise to mistakes. But between the second and the first beat of the following measure, mistakes in the harmonic movement are more likely to occur.



(forbidden).

2) No two octaves or fifths should occur on two consecutive first beats, so that the new interval, which is on the second beat, even though it may create contrary motion, in no way excuses fifths or octaves which may be on the first beats.



3) As a rule, moreover, it is better not to have two octaves or two fifths on two succeeding second beats.



Although this rule (and even the preceding one) is often disregarded, it is better to conform to it in these exercises.

When, in the two incriminated measures, the counterpoint has a *symmetrical melodic design* (as in the examples given), it should be considered defective because of the resulting impression of broken harmonies which emphasizes the fifths and the octaves:



But, when this symmetry does not exist, the fifths and the octaves are less evident:



Moreover, in the first fifth (E — B) of the first example, and in the second fifth of the second example (F — C) the notes B and C are treated as passing notes.

3. — The themes given for first species counterpoint should be used again; they may have a counterpoint written either above or below them and all the rules that have been given should be followed.

In the first measure, the first interval should be *an octave* when the theme is above, *an octave or a fifth* when the theme is below. But the counterpoint may well begin only on the second beat, after a minim pause.

In practise, the last measure but one should be written in semi-breves, in conformity with the cadence formulae already given.

Theme below:



It will be seen in (a) that a unison may occur as an exception on a second beat.

Theme above:

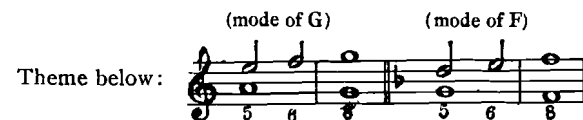


In (b), in spite of the melodic symmetry of the two measures, consecutive fifths on two second beats in succession sound very well because the second fifth is really a passing note.

To continue the movement in minims, the last measure but one might have been written thus:



In modes of G and of F, the following is possible:



In the mode of F:



In all other cases, the last measure but one should be written in semibreves.

### § 3. — THIRD SPECIES OF COUNTERPOINT.

1. — In the third species of counterpoint, the part accompanying the theme should be written in crochets and, in consequence, it will have three, four (five, six) notes against one, in measures with 3/4, 4/4 (5/4, 6/4) time signatures. The value of each note of the theme should cover a whole measure (dotted minim, semi-breve, etc.).

1) At this stage, every first beat should be consonant; but, on any other beat, passing notes may be used under the conditions we have already defined. These conditions suppose that the passing note connects by step two consonant or *real* notes, so that they give rise to the following combinations: in a measure of four beats we should have, for instance, a) consonance, b) dissonance, c) consonance, d) dissonance; or a) consonance, b) consonance, c) dissonance, d) consonance. If the second and the fourth beats are dissonant, the third beat is consonant; if the third is dissonant, the second and fourth are consonant.

Two successive dissonances would have been possible in the following example:



(diminished fifth and fourth). But, although this example may be harmonically correct, for reasons of modality we would exclude the diminished fifth and the augmented fourth.

When a note which may be qualified as a *leading note* (the B when there is nothing as key signature; the E when there is one flat etc.) is a *real* note, the other note of the interval (F for instance) being foreign to the harmony is almost bound to spoil the passage from a modal point of view. See above or the following:



<sup>1</sup> For, in such a case, either the B should rise to the C, that is to say, behave as a real leading note, or else it should keep its stability and this is taken from it by the passing F. In an eighth or a seventh mode the example quoted is always bad. We shall see later that there is a harmonic device (the suspension) by which it may be corrected, as in the following:



In the opposite case, i. e. when the B is foreign to the harmony and the F is a real note, the result is bad, as is shown by the following example



in which the B is still completely under the attraction of the C. In the following examples, however, it may be allowed:



as here it distinctly has the character of a passing note.

This very important remark is made to prevent possible confusion between the ancient modes and our modern major scale, which is characterized, among other things, by the tendency of the leading note towards the tonic in chords of the diminished fifth or the augmented fourth whether sounded or implied.

There remain, then, the two combinations already shown, with, of course, the possibility of substituting consonances for dissonances.



+ = a passing dissonance.

2) Instead of connecting two different notes, the dissonances may also return to the original note which, in such a case, is said

(the F is not heard at the same time as the B). On the other hand, the augmented fourth is excellent in such examples as the following one:



in which the B is an appoggiatura. It is not the fact of hearing F against B, or B against F, that jars, but the *attraction* of the leading note towards the tonic in the diminished fifth and the augmented fourth.

to be embellished<sup>\*</sup>. This embellishment, or embroidery as it is sometimes called, may be *above* or *below* the principal note and should be used under the same conditions as passing notes i. e. for the time being on beats other than first beats.



(1) embellishment above; (2) embellishment below

2. — With regard to *fifths* and *octaves* the same rules as for second species should be applied, viz.:

1) These intervals should never be approached by similar motion when passing from the last beat of one measure to the first beat of the next. It is, therefore, on the sounding of the first beat that the harmonic movement should be watched; there must be no consecutive octaves or fifths even by contrary motion.

2) There must be neither fifths nor octaves on any two first beats in consecutive measures:



3) What has already been said concerning other beats holds good here, any fifths or octaves which are emphasized by the melodic design should therefore be avoided.



In all other cases the teacher must exercise a certain leniency.

Nevertheless, when a first beat is marked by a fifth or an octave, the student should make sure that the same interval does not appear in the *preceding* measure or at least not with any prominence. Ex.:



(to be avoided)

<sup>\*</sup> According to strictly logical order, melodic embellishments: passing notes, accessory notes, appoggiaturas, anticipatory notes etc. should be treated of all together. But logical order is not necessarily pedagogic. What would be thought of a piano teacher who in teaching technique attempted to give a pupil, all at once, every detail concerning, for example, the passing of the thumb? We shall, therefore, have to return several times to this subject, which is logically one. The same remark applies to fifths and octaves.

But, on the other hand, no objection can be made, after marking a first beat with a fifth or an octave, to finding this interval in the *following* measure on *any other beat than the first*:



allowable

3. — The themes should, therefore, be treated as before, either as upper or lower parts.

The counterpoint, instead of beginning on the first beat, may start on the second after a crochet pause. The formulae already given should serve as a guide for the first and the last two measures.

In the mode of D, the last measure but one should be written in semibreves; see cadences.

For the mode of F, the following or similar formulae are suitable.

With the *theme below*:



With the *theme above*:

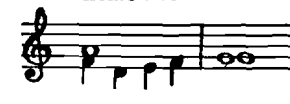


For the mode of G, the following or similar cadences are suitable:

Theme below



Theme above



In this species the theme should be accompanied successively by *three, four, five* or *six*, notes against one.

The embellishments of which we are now going to speak should not be used.

#### § 4. — EMBELLISHMENTS OTHER THAN PASSING AND CHANGING NOTES.

These melodic embellishments are not allowed in strict counterpoint but the study of them is necessary to Plainsong accompani-

ment; we shall give a definition of them here and supplement further on with the necessary explanations.

1. The *anticipation* is certainly the simplest among them, its very name explains what it is:



In these two examples the D is anticipated and this anticipation creates an accidental dissonance.

2. If, in an embellishment, we suppress the return to the essential note, we get what is called an *anticipatory note* (Fr. *échappée*):



This note, then, is approached by a step and quitted by a leap; the reason for its existence is to be found in the essential note which precedes it.

3. The *appoggiatura*, on the contrary, finds its explanation in the essential note which follows it, since it may be approached by a leap and quitted by a step, as will be shown below.

a) This note may be placed on a beat other than the first beat, or, more exactly and speaking generally, it may be outside the harmonic movement:



There is something unobtrusive about the *appoggiatura*, which in this case may be called a *weak appoggiatura*; the essential note which follows may belong either to the same harmony (ex. 1) or may coincide with a new harmony (ex. 2).

An *appoggiatura* may be above or below the note which follows it.

b) The *strong* or *expressive appoggiatura*, or *appoggiatura* properly so called, coincides with the change of harmony; it may therefore be on a first beat. It may also be either above or below the note of resolution, which is an essential note.

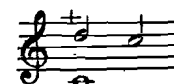
When reached by step, this note might possibly be analysed as a passing or changing note, placed on the change of harmony; but, whatever theoretical view one may take, it seems simpler to give the name of *appoggiatura* to any melodic note of this kind placed on a change of harmony.

In contrast to other foreign notes, it should be observed that this note is often long, sometimes even longer than the essential note which follows. Ex.:



- 1) Upper appoggiatura of a third by a fourth.
- 2) Lower " of a third by a second.
- 3) Upper " followed by a lower id..
- 4) " " of a sixth by a seventh.
- 5) Appoggiatura reached stepwise (app. of a third).
- 6) " " (app. of a sixth).
- 7) " reached by a leap in the melody.

The appoggiatura of an octave by a ninth:



like the octave itself (which is the essential note) should, for the most part, be reached by contrary motion; the following, therefore, should be avoided, especially in two part writing:



The lower appoggiatura of an octave by a seventh is not to be recommended in two part writing except when this note is merely a changing or a passing note.



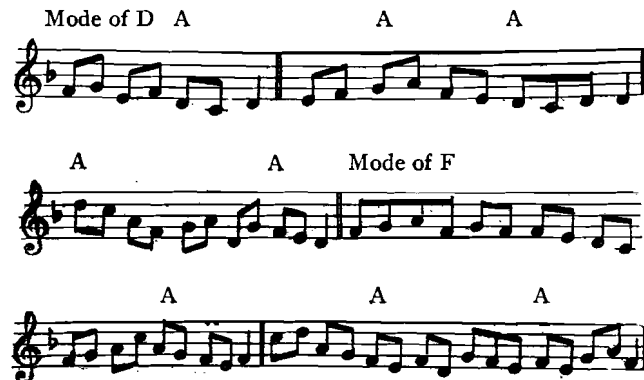
As to the lower appoggiatura of a sixth, it can hardly be said to deserve this name since the resulting consonance of a perfect fifth can have nothing of the true character of an appoggiatura.

In the same way, a fourth can hardly be considered a lower appoggiatura of a fifth, but makes an excellent upper appoggiatura of a third<sup>1</sup>.

There remain then: 1) the upper and lower appoggiatura of a third; 2) the upper appoggiatura of a sixth by a seventh; 3) the upper appoggiatura of an octave by a ninth.

Here follow some formulae written in the compass of an alto voice and under which a bass should be written with *one* note against every group of quavers or against every crochet; the rules we have given should be followed especially on modal cadences. These formulae contain not only passing and changing notes but also anticipations, anticipatory notes (Fr. *échappées*) and appoggiaturas. Non stressed embellishments, i. e. those which do not coincide with the harmonic movement, present no difficulty. As a true appoggiatura need not necessarily be on this or that note, which note might be treated as essential, the letter A has been put over notes which should be treated as appoggiaturas. On (a) we have an anticipation.

Ex.:



<sup>1</sup> In writing for more than two parts, the lower appoggiatura of a fifth by a fourth may be heard fairly distinctly because the fourth creates a characteristic dissonance, with the third, which completes the chord.



The student should then apply the principles given in Part II in making a *rhythmic analysis* of Plainsong pieces belonging to the first, second, fifth, sixth, seventh and eighth, modes; the first four of these modes should not contain the note B, flat or natural, in the melody; the last two, except for the cadence



should not go lower than middle F nor higher than treble E<sup>1</sup>.

A bass should be written under the melody, with a note on every ictus or on every second ictus; harmonic movement of some kind is obligatory on every long note. Obviously, this is not the way to accompany Plainsong: two parts would be insufficient and the frequency of a chord on each ictus would be excessive; this is merely a preparatory exercise.

It should not be forgotten that every note which begins a binary or ternary group may, when joined to the note which follows it by a step, be considered either as an essential note or as an appoggiatura of the second note, in virtue of what has already been said on the subject.

Here is an example of this type of work: (a)



<sup>1</sup> It will suffice to open one's Graduale and to run through several pages in order to find similar examples. Cf. the article by the Rev. Dom Desroquettes in *La Revue Grégorienne*, 1924, n° 1, page 6, note 1 and page 9, note 4, for a list of some such pieces.

On (a) we have a *double* anticipation.

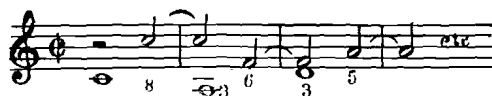
Once more let it be clearly understood that the above is merely an exercise on intervals; the final formula, in particular (*torculus and punctum*), would be harmonized quite differently if written out in three or four parts.

# § 5. — SYNCOPATED COUNTERPOINT (THE SUSPENSION).

Before passing on to the study of three part counterpoint it is well to become familiar with the suspension by making use of it in two part writing.

In this species the counterpoint begins with a minim rest, the minim which follows this rest is written on the second beat of a 2/2 measure and is tied to the following first beat; and so on. The second beat is thus necessarily consonant, since it cannot be a passing note.

If the syncopation does not produce a dissonance, the counterpoint may move freely in sounding the following second beat:



But if the syncopation produces a dissonance on the first beat, the following rules must be observed.

1. — The dissonance must be resolved on the degree *immediately* below it, and has, therefore, an *obligatory* movement for its resolution.

In accordance with this:

1) If the syncopation is in the top part, the seventh is resolved on to the sixth; the ninth on to the octave; the fourth on to the third.

In other words, the seventh is the *suspension* of the sixth; the ninth of the octave; the fourth of the third:



2) If the syncopation is in the lower part, a second is resolved on to a third and a fourth on to a fifth. In other words, the second is a suspension of the third and the fourth a suspension of the fifth:



3) But the ninth with resolution on the octave (syncopation in upper part) should not be transposed into a second with resolution on a unison nor be inverted (syncopation in lower part) to a seventh with resolution on the octave:

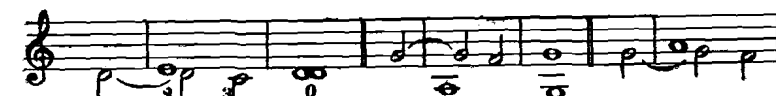
(Forbidden)



Care should, therefore, be taken not to confuse a seventh, which is resolved on to a sixth (counterpoint in upper part) with a seventh, which is resolved on to an octave (counterpoint in the bass).

4) Once the dissonance has been resolved, it may be found impossible to continue the counterpoint in syncopation. In such a case a counterpoint of two notes against one should be reverted to and the syncopation started again as soon as possible.

5) The themes already given may again be used as subjects, first as upper part and then as lower part. Essentially, the cadence will have to be as follows:



Where it is impossible to do otherwise the cadences given for the second species may be used.

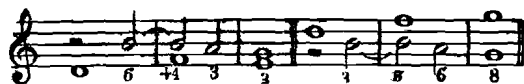
6) Octaves and fifths on two consecutive first beats are still forbidden. This applies equally to octaves and fifths on second beats and also to those produced by a suspension:



(Forbidden)

7) In the case of the dissonant diminished fifth and augmented fourth, the rule already given should serve as a guide. When the note, which might be qualified as leading note, is an essential note, (B, when there is no key signature), then these intervals cannot be allowed to pass. Moreover, when the counterpoint is in the upper part, the diminished fifth cannot be used because its resolution gives rise to a fourth which is itself a dissonance,

Ex.:

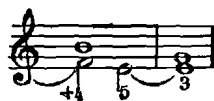


Possible: the B is a suspension



non modal: the B is here an essential note in practice impossible and non modal

Sometimes the context may allow this augmented fourth:



but there is always the danger of giving the impression of a dominant seventh.

Here is a worked out exercise in syncopated counterpoint:



In the sixth measure of the last example, the second inversion of the triad or six four chord: D G B, which the melody outlines, is forbidden under this form in all modern treatises of counterpoint but it caused no anxiety whatever to earlier writers, who did not give the matter a thought. It should be remembered too that in G major with F sharp, the impression given would be a very different one.

<sup>1</sup> The B should here rise to C and F be lowered to E, thus producing pure modern major.

N. B. — Before their resolution, both a suspension and an appoggiatura may sound another essential note which has been borrowed from the harmony of the resolution:



suspension appoggiatura

This procedure may sometimes be useful in the accompaniment of Plainsong.

## CHAPTER II

### Three part counterpoint.

#### § I. — NOTE AGAINST NOTE COUNTERPOINT.

The addition of a third part allows for a more complete harmony and thus clearly introduces the idea of a chord.

1. — *Root chords of three notes.* — When a given note is placed in the lowest part, if, above this harmonic bass (not necessarily the bass voice, but the lowest of the three, which may for instance be the tenor) we sound a *third* and a *fifth*, a chord of three notes is produced, which may be either a *perfect major* chord, or a *perfect minor* chord or a chord of the *diminished fifth*.

Taking each note of the scale as a starting point we get the following table:



The lowest note which thus serves as a basis is called the *root* note of the chord and gives the chord its name (chord of C, of D, etc.).

It will be seen that some chords contain a major third, others a minor third and that the fifth is perfect or diminished. Hence, chords may be of three kinds.

1) The *perfect major* chord: major third and perfect fifth (these chords are marked with the figure 1 in the above table).

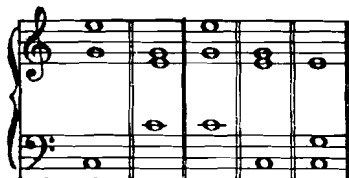
2) The *perfect minor* chord: minor third and perfect fifth (marked with figure 2).

3) The chord of the *diminished fifth*: minor third and diminished fifth (marked with figure 3).

Provided that the root note remains in the bass, the other parts may be distributed as desired, although, of course, within the limits

of the given voices. One would write, for example, for bass, tenor and alto; or for bass, tenor and soprano; or for bass, alto and soprano.

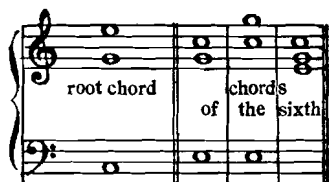
Here are several possible ways of distributing the chord of C:



It should be borne in mind that a chord derives its name not from its top melodic note but from its root; all the above chords are therefore chords of C major.

2. — *Inversion*. — If, instead of putting the root of a chord as its bass we put the third or the fifth of this root, the chord is said to be *inverted*.

The *first inversion* makes the third of its root the bass of a chord; the root is then at an interval of a sixth above the bass. Consequently, this inversion is named: *chord of the sixth*.



The *second inversion* is called a chord of the *fourth and sixth*.



This is prohibited in strict counterpoint and, except in certain cases, which will be given later, it is not allowed in the accompaniment of Plainsong.

It should be noticed that the fourth G — C, which may exist between two upper parts, does not create a dissonance. But a fourth between the bass and one of the upper parts is said to be dissonant; and this is precisely the case in the chord of the fourth and sixth.

3. — *Figuring*. — Above the bass, instead of two figures which should mark the intervals (3 and 5, for the perfect chord, 3 and 6 for the chord of the sixth) 5 or 3 may serve to indicate the perfect

fifth or this interval may be left unfigured, and 6 serve to indicate the chord of the sixth.

4. — *Chord of the diminished fifth*. — The danger of using this chord lies in the attraction of the tonic C towards the leading note B, which attraction is characteristic of our modern classical system but cannot be admitted in the modal system of Plainsong. Therefore, this chord in its root position is practically impossible in Plainsong accompaniment<sup>1</sup>.

This leaves us the first inversion:



It is fairly clear that such formulae as the above belong to the modern key of C major; the B has here the character of a leading note. The same is true even when such formulae are inverted, in which case the character of the chord of the diminished fifth is influenced by the chord of C, which precedes it, regardless of what follows. They must, therefore, be rejected. The last of the three examples would alone be allowable, in certain cases, if the first movement of the chord of C had the transitional character of a passing harmony; both chords should be of comparatively short duration and should have no marked rhythmical importance.

If, on the contrary, the chord of A minor is substituted for the chord of C, and especially if the note B descends instead of rising, then the chord of the sixth on D or the first inversion of the chord of the diminished fifth may sound very well, just because the B has no longer the character of a leading note.



(These examples should be transposed into all keys.)

<sup>1</sup> In our modern harmonic system, the chord of the diminished fifth may be a) the chord of the seventh degree in a major scale (B, is here the true root), which is only used in harmonic sequences; b) the chord of the second degree in a minor scale; c) the chord of the dominant seventh minus its bass (fifth degree of the scale). The context will generally show what harmonic interval is being used. The earliest contrapuntists allowed the use of this chord in the form of a first inversion without submitting it to any meticulous tonal analysis and in many of these cases the element of attraction was undoubtedly present.

5. — *Omission and doubling of notes.* — Care should be taken to write a complete harmony i. e. to sound the three notes of a chord. Sometimes, however, the logical movements of parts — a very important consideration — does not allow for complete chords. One note is then omitted and another doubled.

The fifth is most usually omitted and the root doubled; the third is less often doubled. Early composers frequently omitted the third, especially at the beginning or end of a piece. Ex.:



- 1) Complete chords; 2) the fifth is omitted in a perfect chord; 3) a chord of the sixth in which the fifth of the root is omitted and the third (which is in the bass) doubled.

It is generally better not to double the bass in a chord of the sixth especially not in the upper part. But, when this chord is a transitional or passing chord, as in 3), this may be done without producing an unpleasant effect.

6. — *Fifths and octaves.* — A. The rules relating to two part harmony should be observed here also. There must then be no consecutive fifths or octaves even by contrary motion, or similar motion leading to these intervals a) between the bass and a middle part; b) between the bass and the soprano; c) between a middle part and the soprano. It is, therefore, important to compare the parts two by two.

It should, however, be noticed that rules concerning fifths do not apply to fourths. Ex.:



1. Consecutive fifths between the soprano and the alto.
2. Octave by similar motion between the soprano and the bass.
3. Fifth by similar motion between the soprano and the bass.
4. Consecutive fifths between the extreme parts by contrary motion.

5. Consecutive fourths (allowed) between the soprano and the alto.

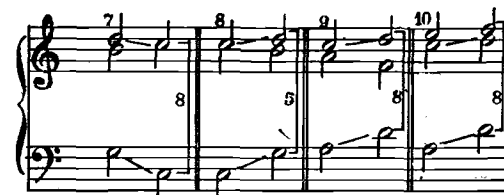
6. Fourth reached by similar motion (allowed) between the soprano and the alto.

*B. Exceptions* to these rules or at least to those relating to a fifth or an octave reached by similar motion are fairly frequent.

The principles formulated in modern textbooks on harmony are based chiefly on the tonal value of the chord: the distinction between good and bad harmonic degrees is taken into account. This distinction does not concern us here. Moreover, it is important that this statement of facts should be simplified and reduced to a few practical rules. The severity of the rules will be still more relaxed in four part counterpoint, but experience shows that too much freedom, too many foreseen exceptions only create confusion in the mind of the student.

a) *An octave or a fifth may, therefore, be reached by similar motion if, of the two parts which form the fifth or the octave, the upper moves by a step, the lower part being free to move by a leap.*

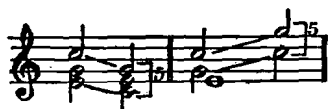
By the higher of two parts is meant the soprano if the fifth or octave is formed by the soprano and one of the other two parts but it may also mean the intermediate part if the interval in question is made by the bass and this intermediate part (the upper of the two parts forming a fifth or an octave must move by step).



In all these examples the upper of the two parts forming a fifth or an octave (the soprano in examples 1, 2, 3, 4, 6, 7, 8, 9; the alto in examples 5 and 10) moves by a step, the lower of the two parts (the bass in examples 1, 2, 4, 5, 7, 8, 9, 10; the alto in examples 3 and 6) moves by a leap.

For reasons of a tonal order, in the modern sense of the word, official text books would give example 9, as one to be avoided because on the ascending fourth of the chord roots A - D, the third of the first minor chord (C) rises by a major second and by similar motion to the octave of the bass (D) of the second chord; the disposition of notes in example 10, in which the octave is not between the extreme parts, would be better. We, however, have no reason for disapproving of the disposition of notes in example 9.

b) When a chord passes from root position to its first inversion or *vice versa*, it does not matter whether the fifth is reached by similar or contrary motion :



In the second example the notes of the same chord are merely differently distributed.

c) All examples similar to the following are permissible, although the upper part moves by leaps.



7. — *On the use of the chord of the sixth.* — It should be observed that the peculiar character of this chord, which is most often a chord of transition, hardly allows of leaps in the bass.

The following sequence would be definitely objectionable :



Examples such as :



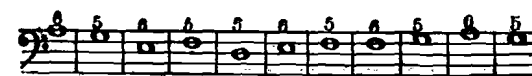
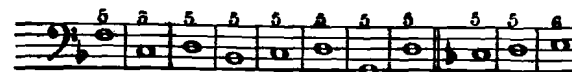
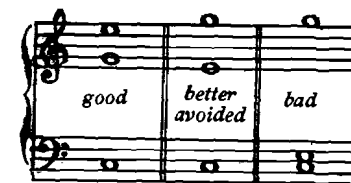
are good because of the proximity of the subsequent perfect chord approached stepwise in both cases and which, in the second example, is only at a third from the first chord of the sixth.

8. — *Exercises.* — Two parts should be written above the following basses in accordance with all the rules hitherto given.

The student should verify the following :

- 1) The melodic movement of each part taken separately and the compass of each of the voices.
- 2) The harmonic intervals of each chord (no chords of the fourth and the sixth).
- 3) The harmonic movement between parts taken two by two (i. e. bass and middle part, bass and soprano, middle part and soprano) so as to avoid forbidden fifths and octaves.

It will be noticed that the distance between the bass and the middle part may easily be of more than one octave but if the distance between the two upper parts is greater than an octave there is a certain risk of unpleasantness in the sound :



Attention must be paid to the melodic movement of the intermediate part; this should not merely complete chords at random but have its own melodic *raison d'être*; it is more important that each part should sing than that every chord should be complete.

When two chords have a note in common, this note may be sustained by being tied in the same part; in many cases this is the best course to adopt.

The exercises given should be transposed into several different keys.

When the student has become familiar with the use of chords in root position and with their first inversions, he should return to the themes given for two part counterpoint or choose any similar ones according to the same directions and place these themes successively in three different parts, writing out the other two parts either one above and one below, or both above or both below.

Nevertheless, in the mode of F, the theme should not be put in the bass because this would necessitate the writing of a first inversion of the diminished fifth in the last measure but one, which, from a modal point of view, is bad.

Cadence formulae :



The use of the chord of the diminished fifth should be strictly limited to the formulae given further back.

## § 2. — COUNTERPOINT OF TWO OR MORE NOTES AGAINST ONE.

1. — In three part counterpoint of two notes against one, the theme should be placed successively in all three parts (except in the bass for the mode of F); one of the counterpoint parts is written in minims while the other is in semibreves.

Passing notes may be used but not changing notes or other embellishments.

As regards fifths and octaves, there is nothing new (see rules given for two part counterpoint and exceptions to these rules in preceding paragraph under 6. — B).

The second beat of every measure may easily be given an incomplete chord especially one without a third such as :



2. — When the counterpoint is written in crochets (three, four notes against one), the rules given in the preceding chapter should again be applied.

Changing notes as well as passing notes may be used. Other embellishments viz, anticipations, anticipatory notes, appoggiaturas must, for the moment, be rejected.

A student with little time at his disposal may confine himself to writing the counterpoint in crochets in the upper part, the theme being placed in one of the two lower parts. It should not, however, be thought that the absence of new rules dispenses the student from thoroughly mastering these species.

3. — Finally, when the practical rules given in Part II, chap. III have been well grasped, a few pieces of Plainsong may be selected for harmonization. In the modes of D and of F, these should have no B either flat or natural; in the mode of G, they should not descend lower than middle F, or rise above treble E.

A preliminary detailed rhythmic analysis of each piece should be made. The notes of the melody may be treated with the freedom bestowed by the use of the anticipation, the anticipatory note, the appoggiatura... (Cf. chap. II, § 3, 4. — *the formulae given there should be harmonized in three parts*).

What we have said concerning suspensions in two part synopated counterpoint will make it possible to analyse those which must necessarily appear in certain cadence formulae, mention of which is made in Part II.

The following is a short example of this elementary form of work :

*First Xmas Nocturn : Dóminus dixit ad me*





In (a) we have a strong and sustained appoggiatura; the harmonic tritone F - B is in no way comparable to that formed by the first inversion of the chord of the diminished fifth, for B is not an essential note; owing to the presence of A in the bass and the sustained F in the alto, its attraction towards the C in no way recalls the behaviour of the modern leading note.

In (b) the fifths between the two upper parts are tolerated because the melodic C is merely an anticipatory note.

### § III. — SYNCOPATED COUNTERPOINT AND MIXTURE OF SPECIES.

I. — As syncopation does not exist in Plainsong, our work will consist chiefly in finding suitable suspensions in the intermediary part and in the bass, but not in the upper part. Nevertheless, we are of opinion that this species like the others should be completely worked out by the student.

When the syncopation gives rise to a dissonance with obligatory resolution on the degree immediately below (a suspension with resolution on the note above is most often impracticable in Plainsong), we may have:

1) *On a perfect chord in root position*: a) the suspension of its third by a fourth:



The suspension of a fifth by a sixth does not give rise to a dissonance.

b) A suspension of the root note of the chord in the bass:



c) A suspension of the octave of the root note by a ninth:



2) *In a chord of the sixth*: a) the root note of the chord of resolution or the sixth of the bass may be suspended by a seventh:



b) The third of the root note may be suspended in the bass:



c) The fifth of the root note may be suspended i. e. the third of the bass suspended by a fourth (which thus forms a chord of the fourth and sixth).



The suspension of the octave of the root note by the ninth is the only case in which both the suspending and suspended notes are heard together; it should be noticed that we speak here of the suspension of the octave of a root note. This must not be transformed into the suspension of a unison by an interval of a second:

(forbidden)



nor inverted i. e.

(id.)





The suspension of the root note is therefore good only where this root note is not doubled by its own octave as in the example c) given further back.

In order to figure suspensions clearly, it is generally necessary to note down all the intervals; there are thus two lines of figures one above the other.

The rules given for two part counterpoint still hold good, notwithstanding which, fifths (not octaves) in a slow movement between upper parts have been frequently used by old masters.



These should not be used in exercises but will be tolerated in Plainsong accompaniment.

2. — *Mixture of species.* — The theme is written in semibreves as before, another part is written in crochets, and a third in minims or syncopated counterpoint: this is called a mixture of the species.

One mixture is particularly interesting as regards the end we have in view: it is that of a top part in crochets (four notes against one), an intermediary part or bass in minims with suspensions by syncopation where possible and the theme either in the bass or in the intermediary part.

As regards their relationship with the theme, the two counterpoints should be written in accordance with the rules followed up till now. Strict correctness in writing should be observed in the relationship of the two counterpoints one to the other.

The third beat of each measure presents an interesting peculiarity: the third crochet of third species counterpoint (four notes against one) may be given a passing dissonance (or a changing note); on the same beat the second minim of second species counterpoint (two notes against one) may also be a passing dissonance; if, in addition, these two notes create a dissonance between themselves, it will be noticed that similar motion will often give rise to faults or to harshness; contrary motion is very much better although logical and sure movement of parts will make almost anything pass muster.

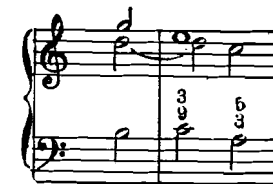
A changing note which seems to keep the ornamented note in its place may easily be used in the resolution of suspensions.

Here is an example:



At (a), D in the alto would be better (it would do away with the prolonged similar motion between the alto and soprano) even though it brings about a fifth G - D between the bass and alto by similar motion. G has been written in the place of D in deference to the formulated rule. The next chapter will throw fresh light on this matter although, for the present, we should remember that it is easier to follow a rule than to break it judiciously.

The theme being written in semibreves, the resolution of the suspension will almost necessarily have the same harmony as the suspension itself. But, in an accompaniment, the suspension may coincide with a change of harmony:



It should be noticed that the resolution of a suspension should never be doubled at an octave's interval by similar motion:



This mixture of the species finds frequent application in the accompaniment of Plainsong. After having practised it on given themes, Plainsong pieces (with those characteristics which we have

already indicated) should be harmonized with suspensions, especially in the intermediate part.

The following formula :



is often useful in cases where the bass, remaining stationary, a suspension on the seventh drops to the sixth, then to the fifth, thus keeping up the movement by marking the ictus (these formulae should also be transposed a fifth lower). Generally speaking, embellishments, used in the upper part, in no way interfere with this succession of harmonies as will be shown by the examples given in the following chapter.

### CHAPTER III

#### Four-part counterpoint and diverse complements.

I. — *Four-part counterpoint.* — 1) The rules for four-part counterpoint are exactly the same as those for three part counterpoint. Nor do the exercises differ from those given for three-part counterpoint. But, as the writing is for four voices (soprano, alto, tenor and bass), harmonies will generally be complete with doubling of the root note or of the fifth and, but more rarely, of the third, especially between extreme parts; in this last case we have the doubling of the bass by the soprano in the chord of the sixth, since the bass is here the third of the root note of the chord; this doubling of the third should only be of short duration, thus :



2) As to fifths and octaves, they should not be consecutive, but, when approached by similar motion, these intervals may often be

tolerated even when they are not among the exceptions already allowed, i. e. even when the upper of the two notes which make up the fifth or octave is approached by a leap.

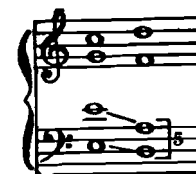
The relationship between extreme parts should be carefully watched and that between the soprano and bass should be in as strict accordance as possible with the rules given above.

For the relationship between the three lower parts or between the highest and one intermediate part to be good, it is the logical progression of the melody which should be more particularly watched; this will, of course, necessitate a certain freedom in the treatment. Here again, all official text books take the harmonic value of the degree into account before determining when a fifth or an octave approached by similar motion should be authorized. We, who do not and must not concern ourselves with this matter, have nothing against such similar motion, provided that it is required by the melodic progression of the parts involved.

For instance, and in this we are in agreement with all the text books, when a note which is to become a fifth is heard in the first chord and is, in consequence, *common* to both chords, the fifth may, without difficulty, be approached by similar motion (E is here common to both chords) :



The following may also be commended :



and in many other cases the pupil will only require to be guided by the teacher's experience.

We would even venture — but this is a personal opinion — to authorize consecutive fifths in cases already described in the footnote of pp. 5, 6, and 7.

3) The same method of work, already given for three part counterpoint, should now be applied to four-part counterpoint and in all species.

<i>Theme in the soprano</i>	{	Counterpoint in the alto.
	"	" " tenor.
	"	" " bass.
<i>Theme in the alto</i>	{	Counterpoint in the soprano.
	"	" " tenor.
	"	" " bass.
<i>Theme in the tenor</i>	{	Counterpoint in the soprano.
	"	" " alto.
	"	" " bass.
<i>Theme in the bass</i>	{	Counterpoint in the soprano.
	"	" " alto.
	"	" " tenor.

In mixed species with, for instance, the *theme in the tenor*, the soprano may be in crochets, the alto in minims and the bass in semibreves.

With the *theme in the alto*, the soprano may be in crochets, the tenor in minims with or without syncopation, and the bass in semibreves. As many combinations as possible should be tried.

The theme may also be in the bass or in the soprano. As a preparation to the accompaniment of Plainsong, it is less necessary to have the theme in semibreves in the soprano, a Plainsong melody being always of a flowing nature.

Before beginning to write four part accompaniments, the student should notice at once that in many passages requiring lightness it is better to write in three parts only; the tenor, in such cases, most often serves as a harmonic bass.

II. — *Chords of the seventh.* — Up to the present, we have used chords of only three notes. By adding a *seventh* to the third of the root of a common chord, we get a new series of chords said to be chords of the seventh, one on each degree of the scale :

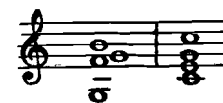


1. Perfect major chord with minor seventh.
2. Perfect minor chord with minor seventh.
3. Perfect major chord with major seventh.
4. Chord of the diminished fifth with minor seventh.

A. *The chord of the dominant seventh.* — Chord I. is known as the chord of the dominant seventh because it is placed on the dominant or fifth degree in major and minor modes. If this chord is admitted in the accompaniment of Plainsong, its name ceases to have a meaning since in Plainsong there are neither major nor

minor modes but other modes of a very different kind; it would then be merely a chord of the seventh like any other.

Can this chord be allowed in the modal system of Plainsong? Contrarily to a fairly widespread opinion it is not the *seventh* that we condemn, but the *diminished fifth* in which the risk of *attraction* is always very great; we need not then formulate any rule other than that given for the chord of the diminished fifth, but it should be recognized that the element of attraction is much more strongly marked in the complete chord of the dominant seventh than in the simple chord of the diminished fifth, since, in the latter, the root note is merely implied; and yet, the element of attraction comes entirely from the interval of the diminished fifth; it is, therefore, the impression of a leading note going to the tonic which must be avoided. The following sequence :



will always be bad as it distinctly belongs to a modern major tonality. The sequence :



though it might be allowed to pass in certain cases (according to the context), will nearly always be bad because the leading note rises to the tonic, thus giving way to the latter's attraction, in spite of the bass "interrupting" a perfect cadence.

In the formula :



(chord of the diminished fifth) the impression of a modern major tonality is much less strong, because the first chord would seem to belong to the second degree (with B as root) of a mode in which A is the tonic. With G as root (Cf. preceding examples) one is much more forcibly reminded of the key of C major.

Very different is the character of B, supposed leading note, which, instead of yielding to the attraction of the C, falls as in the following examples.



In other cases; and even if used in a different position in the above examples, this chord is detestable in Plainsong.

It may, therefore, be used on certain first and second mode cadences, but in moderation, as it is less stable than the same chord without the seventh.

B. Chord 4. (diminished fifth with minor seventh), in the following or any other similar form, would be bad for the same reasons as the chord of the dominant seventh.



The first of these two chords is in reality a chord of the dominant ninth with its root G implied.

With B as true root note and when followed by the chord of A minor, or in any other combination in which B loses the character of a leading note, this same chord may sound perfectly right:



We shall give further examples of this later on.

The remaining chords of the seventh present no special difficulty.

C. *Preparation and resolution.* — It is generally said that the seventh should be prepared and resolved (similarly to a suspension), Ex.:



P. Preparation

R. Resolution

This is all right as far as it goes. But we must point out that a) when the seventh is prepared, instead of being resolved by a downward step it may remain stationary; b) when the seventh is not prepared, it very often takes on the character of an expressive appoggiatura and thus tends to resolve by step downward. Examples are given further on with which beginners should be satisfied.

D. *Inversions.* — A chord of the seventh in root position (which we will figure throughout with 7) may, like all other chords, be inverted, as the above examples have shown. The first inversion, which is very much used is the *chord of the fifth and sixth*; the second inversion (a passing harmony) is the *chord of the third and fourth*; the last inversion with the seventh in the bass is a *chord of the second*.



E. *General treatment.* — The following are a few practical cases:

1) *With normal preparation and resolution* (like a suspension):



Compare with:



(the seventh is suspended and falls to the sixth).

In the first example there are two consecutive fifths between the alto and the soprano; they should be allowed: an embellished note (F in the soprano), when the changing note is of short value, may be considered as stationary, and any fifths created by the latter may be allowed; such cases are frequent in Plainsong accompaniment. In the same way:



and



are allowed because the second fifth is made up of one true note and of an *appoggiatura* in the upper part.

Very different is the case of a passing note, which, in the place of a fifth merely approached by similar motion, creates two consecutive fifths.



2) Without preparation :

1. The seventh appears in the melody only :



2. The seventh appears in the accompanying parts too, but is resolved downwards.

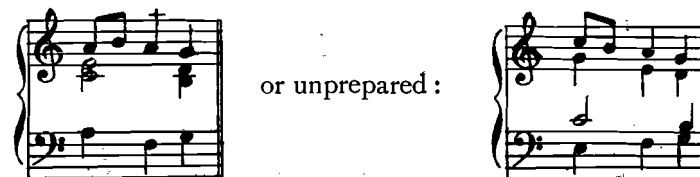
a) Here, in most cases, it is better to omit the fifth of the root note of the chord, so that the seventh, which is resolved on to the sixth, is really an *appoggiatura*. Because the sixth may then fall to the fifth of the bass we are thus provided with a very useful formula for numerous cases in which a stationary bass is required :



Here is a similar formula with the dissonance prepared :



b) The final cadence in seventh and eighth modes adapts itself admirably to a major seventh, which seventh may be prepared :



Moreover, this seventh in the alto, because it takes the place of the octave of the root note F, does away with the harshness to which the simultaneous sounding of the melodic B and the doubled F in the alto sometimes gives rise :



(In the first example, the first G in the bass is a passing note).

3) With twice tied notes (the preparation is tied and is kept stationary by being tied again).

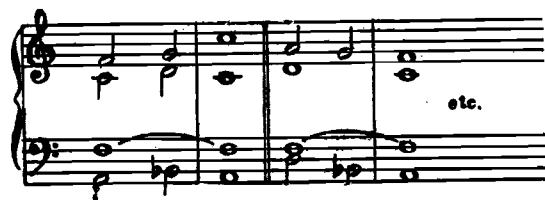
1. In the bass, in the following or similar formulae :



Plainsong example :



2. In the tenor, (sometimes in the alto) in the form of a chord of the fifth and sixth in the following and similar formulae :



Plainsong example :



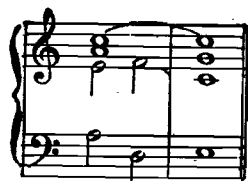
In (a) is seen the best possible use (as a passing chord) of the chord of the third and fourth. (Cf. D. p. 43).

The same harmony also gives the following :



All these cases may be regarded as having a short lower pedal (in the bass) or intermediate pedal (in the tenor).

3. Equivalent formulae with the seventh in the upper part might also be found such as the following harmonic schema :



which, with embellishments, would give us :



and other similar workings.

### III. — Melodic devices in the accompanying parts.

1) We have already drawn attention to an appoggiatura on the seventh in the alto, which drops to the sixth.

An appoggiatura above or below the third may also sound well :



In the second example we have an appoggiatura first above then below the tenor.

2) In speaking of seventh and eighth mode cadences we have already pointed to the usefulness of sustained passing notes in the bass for linking up two harmonies; intermediate parts also lend themselves very readily to such treatment : Ex. :



Here is another example in the bass :



3) A pedal or pedal point is a sustained note that is most often in the bass but is also to be found in an intermediate or upper part, and on which notes foreign to it (chords of transition) may pass.

It provides a possible use of the chord of the fourth and sixth.

We have already given formulae (see above) in which the seventh, prepared and then sustained, creates a true pedal point.

Here are some formulae which should be transposed into practical keys.



To these should be added the formulae already given for chords of the seventh.

In Plainsong accompaniment, a pedal point can only be established on the tonic note; if not on the principal tonic note of the piece, at least on the provisional tonic note of a passage.

Plainsong example :



It will be seen that the principal harmony belongs here to the tonic D, the others are merely chords of transition.

4) *Notes foreign to the harmony, sounded simultaneously.* — It has been observed that the melodic movement does not prevent long passing notes, expressive appoggiaturas, etc., being used in the accompanying parts.

In the accompanying parts it is also possible to have notes foreign to the harmony, which are sounded simultaneously. The logical progression of these parts will alone show whether the

mixture of passing notes, anticipatory notes, appoggiaturas, etc., is truly musical.

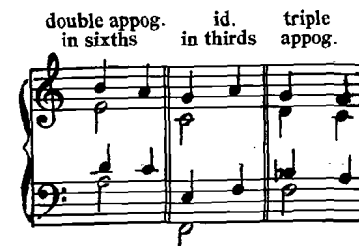
On any assumption, contrary motion lends itself to such combinations with fairly good results; but similar motion often leads to mistakes and unnecessary harshness. An exhaustive list of possible cases would be beyond the scope of this book.

It will be sufficient to notice that passing notes, changing notes, appoggiaturas, may be double, treble or quadruple.

1. By contrary motion :



2. By similar motion, in thirds or sixths, or in thirds and sixths :



3. By a combination of the two processes :



5) Cases of the sixth and the seventh in a perfect chord in root position : if a perfect chord in root position is complete (with fifth) it will be quite obvious that both the sixth and the seventh are foreign to the harmony; they may for instance be passing notes :



They may also be the embellishment of an embellishment :



or an embellishment or changing note followed by an anticipatory note :



- (a) embellishment.  
(b) anticipatory note  
(Fr. *échappée*).

The peculiar position of these two notes in relation to the bass, with which they would form a chord of the fifth and sixth or a chord of the seventh, has allowed of the use of a kind of anticipatory note by a double leap in which the intermediary notes seem to be implied :



The first of these two examples shows the possibility of a new analysis of a formula, which we have already given, and in which the harmony used was said to be a chord of the seventh :



Moreover, in (a), because the C belongs to the following harmony, it may also be analysed as an anticipation of the harmony of A minor or *indirect anticipation* as the theorists call it.

If one of these foreign notes is written simultaneously with the change of harmony, the following varying formulae are obtained :



In examples A, both the foreign notes, which return to the true note by a step, have the character of an appoggiatura; the first has even received the delightful name of "appoggiatura of an appoggiatura".

In example B, we have an appoggiatura followed by a changing note before its resolution.

These cases are interesting from the point of view of Plainsong accompaniment where modal colour so often demands harmony of this kind; the two notes, which we have qualified as foreign, do, in fact, seem, in the Plainsong text, to call for the essential note which has dictated the principal harmony from the very beginning of the melodic formula. Finally, we may have an anticipatory note by a double leap :



We shall see later why this E must be treated as a foreign note (the suspension of the third in the tenor in no way affects our analysis).

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As Part II of this treatise will have been studied together with this one, the student should now proceed with Part III in which he will find more precise information concerning modal harmony.



## PART TWO

### Rhythm.

#### CHAPTER I

#### Measured Rhythm.

#### § I. — DEFINITION OF RHYTHM.

##### I. — *Traditional definition.*

In most manuals on the theory of music, rhythm is taken to be a certain *proportion in duration*, which, translated into practice, consists in the exact multiplication and division of a unit of duration, which may be called time unit, pulse, or *beat*. Thus, a crochét taken as such a time unit may be divided into quavers and subdivided into semiquavers, or may be doubled and quadrupled and thus become a minim and a semibreve. But rhythm may also be considered as a certain ordering of the time units, in which some take precedence over others; the first note of a beat or pulse is more important than the other notes of that beat, and again, the first beat of a bar or measure is the most important of the measure.

In rhythmical movement there must, of course, be order, and for this, some kind of *fixed* element or unit is required, which will serve to measure time much as metre, square metre, and cubic metre, serve to measure lengths, surfaces, and volumes. But this beat or pulse (element of order) is the smallest, the least important factor in the order of rhythm. The structure of the musical phrase, its general form, that is to say the composition itself, in the etymological sense of the word, contains elements at least as important. The definition given by the manuals is, therefore, incomplete.

It is also inaccurate in that it tells us that the first beat of a measure is *strong* and must be *stressed*.

The truth of the matter is that the first beat possesses a rhythmical value of its own, which we shall define later. This is where the confusion lies, *Rhythmic force*, *rhythmic* accentuation undoubtedly exist, so long as these terms are exactly defined, but they do not stand for mere force, nor for stress, nor even for accent. The first beat certainly has a quality of its own, but does that mean that the interpreter must make it a strong beat?

Such a theory is contradicted by facts. A glance at any score will show that accents are distributed among all the beats (except in music of a certain type, which need not concern us here).

The term rhythmic stress or accent is, therefore, ambiguous and we reject it. Later, we shall endeavour to define an accent, showing that the term need not necessarily be synonymous with intensity of sound, and we shall find other terms by which to characterize the rhythmic qualities of the various beats of a measure.

No real musician, moreover, has ever thought seriously of applying this theory of an accented first beat in his interpretation of music, nor can we easily imagine a Beethoven symphony rendered in such a manner.

Let us, therefore, dissociate three terms, which, whatever other relations may subsist between them, represent three distinct ideas. These are *rhythm*, *accent* and *stress*.

II. — *True definition.* — To those possessed of common sense, the idea of rhythm cannot be separated from the idea of movement; true, one speaks of rhythm in architecture and painting, but this is done figuratively and because, in these purely plastic arts, movement is implied. There may be movement simply in time (in its generic sense of duration) e. g. the rhythm of day and night; and there may be movement in time and space such as the rhythm of walking or the rhythm of the stars.

But movement without order is rhythmless; and we can have no aesthetic emotion without order. We can, therefore, affirm that the connotation<sup>1</sup> (in the language of logicians) of the term rhythm presupposes ideas of movement and of order and is, in fact, the conception of order in movement i. e. "the ordering of movement" (Plato's definition, used by Dom Mocquereau).

Applied to musical rhythm, this definition embraces :

1. The general architecture or *form* of a piece.

The first movement of a sonata, for example, begins with two themes, differing in tonality and character. After their exposition, these themes are developed and then taken up again in their original key. A *Rondo* is composed of a refrain or principal subject and a number of couplets or episodes etc., etc. The plan of a *fugue* is less simple, for it has several parts or voices and, in consequence, several simultaneous types of rhythm; but the exposition, the counter-exposition, the various entries of the theme, the episodes which separate these entries, the pedal point, the stretto, etc., all these create order in the movement of the whole.

2. The *period* and its elements.

A theme, complete in itself, may be composed of two or three parallel periods; each period is divided into phrases and the phrases subdivided into sections. These terms are fixed only by

<sup>1</sup> In logic, connotation is opposed to denotation. Connotation (or intention) is taken to mean the contents of an idea or of the terms used to express it, denotation (or extension) is taken to mean all the people and things to which the term may be applied.

convention, but, since we apply them to elements that we consider related one to another, we can say that a period may cover several phrases and that a phrase may contain several sections. We get a complete sense of repose only at the end of a piece, but that sense of repose can be felt in a lesser degree at the close of each period, at the end of each phrase, and of each section.

The nursery rhyme *Jack and Jill* may be used as an example; there are two periods, each of four lines :

1st. phrase	{ Jack and Jill went up the hill To fetch a pail of water;	} 1st. period
2nd. phrase	{ Jack fell down and broke his crown And Jill came tumbling after.	
1st. phrase	{ Then up Jack got and home did trot As fast as he could caper;	} 2nd. period
2nd. phrase	{ They put him to bed and plastered his head, With vinegar and brown paper.	

In each period there are two phrases, each of two lines, and in each phrase there are two sections, each of one line.

3. The *time-unit* or pulse or beat; its multiplication and subdivision<sup>1</sup>.

In listening to music, we recognize the place of beats and we group them so as to give to some a particular rhythmical value. We shall examine later the elements, which determine this order in rhythmic detail. For the present, let us simply recognize the fact of its existence.

Rhythm, so defined, can be applied "*toti et soli definito*", in accordance with the dictates of formal logic.

## § II.—METRE. (Fr. : la Mesure).

In modern music the bar line at once strikes the eye. Reproaches have been heaped upon it, but even its detractors are unable to dispense with it. Since the bar line is for the eye, it cannot be said to *create* anything in the way of musical rhythm. It must, therefore, be a sign; but of what?

I. *The period<sup>2</sup> and its subdivisions; how to distinguish them.* — The most casual reader will have noticed that all periods and their

<sup>1</sup> It should be noticed that the beat is not *necessarily* multiplied (though I can point to no one piece of music where it is not), nor, above all, necessarily subdivided (see the rhythm of Plainsong). We speak of a possibility of multiplication and division (an actual fact in modern music).

<sup>2</sup> English musical terminology is notoriously vague and varies considerably with different writers. We have taken section as the smallest subdivision, phrase as next in importance, and period as the largest. We hope that readers who use these terms in a different sense will excuse us. The chief thing is that our meaning should be clear (translator's note).

subdivisions end on the first beat of a measure. The value of a sign being conventional, we may define the first beat as one which marks a fall or resting place. We may find cadences on other beats, but these, excepting where for various reasons the normal metrical course has been abandoned, are *feminine cadences*, which we will examine in detail further on. For the present we speak of *masculine cadences* and we note that in general they occur on the first beat.

The melody may be said to overlap the bar line and to fall just beyond it. There can be no question of enclosing any musical phrase between two bar lines. In this way we begin to see the natural relation existing between rhythm and metre.

But it is clear that metre (Fr. *la mesure*) and a measure (Fr. *une mesure*), or that which is comprised between two bar lines are quite different things.

Also, when we speak of the rhythm of a particular period, phrase, or section, the expression being used to describe a more or less complete musical formula, it is clear, here again, that rhythm—in its generic and abstract sense—and a rhythmical unit are quite different things.

We have indicated—and will gradually define more precisely—the natural relationship between rhythm and the barring of music; but let it be clearly understood that a rhythmical unit and a measure are necessarily different things, since the cadence or fall of the melody always takes place beyond the bar line.

II. *Pulses or beats, and how to recognize them.*—The first beat does not only serve to mark a cadence or semicadence. The smallest imaginable section would be one consisting of two notes; one is on the *up-beat* of the measure, the other on the *down-beat*; it can be represented as follows: ♪ | ♪, the *impetus* being on the up-beat, the *rest* or fall on the down-beat or first beat.

But few sections are as short as the one just spoken of. For the most part they are composed of several measures and the sense of rest on the first beat is less marked.

And yet, in measured rhythm, the ear is able to distinguish notes which fall on the beat from those which complete it, and, among the beats, to recognize the first.

We are even able to affirm that the beat recurs at regular intervals and that the first beat recurs with similar regularity. This is evident to the eye because each of our beats has the same length and the same is true of each of our measures. But this regularity is perceptible to the ear also, which proves that we have here no arbitrary factor but something truly *rhythmical* i. e. something relevant to order in movement.

In a great many cases, once the metrical structure of a composition has been firmly established, we continue to count beats and measures from sheer force of habit, and this in spite of the introduction of syncopation and other elements, which tend to break

the metrical mould; therefore, it seems we must admit a kind of struggle between the metrical and rhythmic forces at work. Some music, on the other hand, tends from the start to free itself from metrical tyranny, in which case the bar line is nothing more than a landmark for the player and an aid to *ensemble* playing. But it must not be forgotten that the vast majority of classical masterpieces begins by establishing a metrical framework. The subsequent struggle to break away from this framework in every possible way introduces a factor of the greatest variety.

This metrical framework presupposes the regular recurrence of beats and measures and, consequently, of first beats. And, if it be remembered that the musical period is made up of two parallel phrases of equal length, and that in each phrase the sections contain the same number of measures, it will be seen that there is complete symmetry. We shall examine later by what means composers succeeded in escaping from the too rigorous symmetry of the eight bar sentence.


The fact remains, nevertheless, that a piece of music starts with a definite metrical design, however much metre and rhythm may subsequently fight against one another. If, however, they are in opposition from the beginning, then the bar line is an empty sign both for the eye and for *ensemble* playing, and metre cannot be said to exist.

### § III.—The METRICAL FRAMEWORK.

How, then, is the metrical framework established? i. e. how does the ear perceive *naturally*: 1) the place of beats, 2) the place of first beats and their relative value? Let me state once more that we have here nothing artificial or conventional but something objective, of a truly rhythmical character.

I.—*Time signature*, obviously, does not of itself stand for anything; music is for the ear not for the eye.

The formula 

will be heard as 

in binary measure in spite of the indication  $\frac{3}{4}$ , unless, of course, other elements determine a ternary measure.

The beginning of the Prelude to *Parsifal*, written in syncopation, without a harmonized bass, is in reality free rhythm; nothing in the music shows the place of the beats as indicated by the time signature. It is only later on, and through the context, that this theme takes its place in the metrical plan.

II. — *Length* is generally acknowledged to be a very important factor in the determining of the rhythm of a piece and it is in reality the most important.

We already know that the first beat indicates a resting point at the end of periods and phrases; this resting point or pause has necessarily a certain length, it may even be prolonged into silence.

If, however, in a piece, we hear only notes of equal length, we are in doubt about the rhythm; as soon as there is inequality, the rhythm is made clear by the lengthened notes.

Let us first consider the place of beats. In a series of quavers, for example, if no other element is present, the rhythmical grouping may be open to doubt; should a crochet appear, the doubt is immediately dispelled, for that crochet marks a beat. It should be noted, moreover, that in measured rhythm the length of the beat, once established, remains invariable and is unaffected by the subdivision of the beat into triplets or duolets. In Plainsong and in some examples of modern music, where the notes of subdivision are of equal length, and where a compound beat of ternary subdivision is necessarily longer than the beat of binary subdivision, there can be no regular metrical framework.

If we put a minim with a crochet, we find, in accordance with the same principle, that the minim marks the first beat; any other grouping would tend to break the metrical mould. Ex.:



Length contrasting with brevity, therefore, clearly determines the place of beats and that of first beats.

III. — *The slur*, though not to be depended on entirely, may be of use in indicating the rhythm of a composition. We know, for instance, that in *legato* playing, stringed instruments group a number of notes into one stroke of the bow.

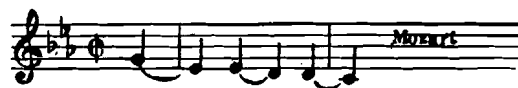


In the above example, if, as indicated, the notes are grouped three by three, the time is  $\frac{6}{8}$ , if grouped two by two, the time is  $\frac{3}{4}$ . If the six notes are in one slur, there remains doubt as to their grouping.

We may say that slurring has, in general, a metrical signification and groups the notes into beats or into measures. From this it is clear that the end of a slur in no way marks the conclusion of a musical rhythm; this, as we know, overlaps the bar line. The

relationship between slur and rhythm is, in such cases, the same as that between the barring of music and rhythm.

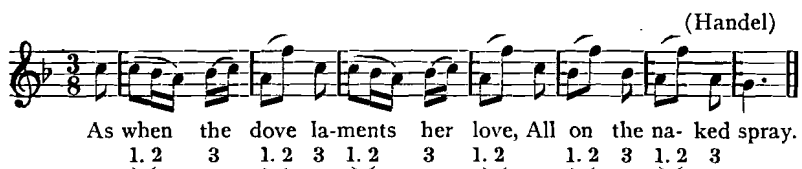
Occasionally, however, a slur may be a true rhythmic sign, grouping together an elementary rise and fall, as in the following example:



In this case, other factors, harmonic bass and tonality, determine the place of the beats.

The slur was first applied to key-board instruments by comparison with its use for strings (Cf. slurs written by Mozart, Haydn, and Beethoven). Later on, the great rhythmic slurs covering a whole phrase or a section, were introduced. Such slurs are perfectly legitimate, but have unfortunately been frequently confused with those used to indicate bowing or with those written by classical composers. (See in this connection Saint-Saëns' curious pamphlet : *Les idées de M. Vincent d'Indy*.)

Something analogous occurs in the grouping of notes over the syllables of a text; the articulation of a new consonant, the change of a vowel, may be compared to the stroke of the bow. But it is the *length* of the syllable that receives several notes as opposed to the relative brevity of the neighbouring syllables, which determines the place of the beats and in many cases the place of even the first beats (except where there is opposing influence, such as contest between metre and rhythm).



Here, all the syllables placed on the first beat are twice as long as those on the third beat (iambic rhythm).

IV. — *Key or tonal sense.* We have recognized that the first beat has a character of at least provisional or transient repose, of *heaviness*, as Mr. Vincent d'Indy calls it. We have seen, on the other hand, that the degrees of a musical scale tend naturally to revert towards the tonic, real note of repose. From this we may deduce that, where length does not intervene, the tonic and even the dominant serve to indicate the rhythm.

Let us take, as an instance, Bach's fugue for organ in B minor. Here we have notes regularly slurred, of equal value, with no

harmonic bass, no pre-established metrical framework, and yet, the rhythm is clear and can be easily perceived at first hearing.



The tonic B and the dominant F are obviously of importance and clearly indicate the first beats; melodic symmetry in the first measure, with notes in groups of four, also necessitates the use of the time signature  $\frac{4}{4}$ , marked by the author.

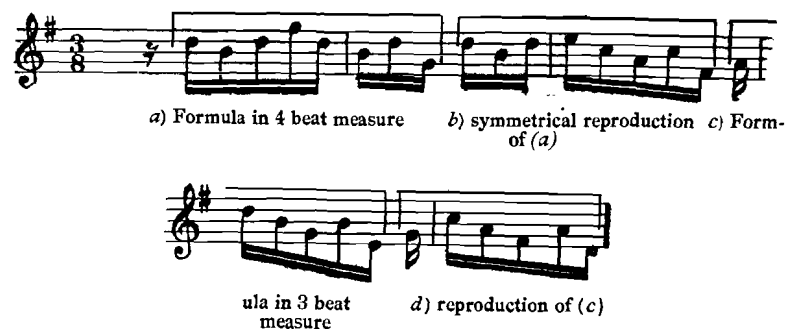
Moreover, it is not melodic symmetry that creates the rhythm in this case, for melodic symmetry may occupy a completely different place, as in the theme of the B flat Fugue (second part of the *Twenty four Preludes and Fugues*).



Here the melody begins on the off-beat, *i. e.* on the second half of the first beat, after a quaver rest. This is because the Fugue having started on C, the second degree of the B flat scale, the tonic B flat following immediately upon this, attracts the beat to itself. The end of the formula on D has the definite character of a fall, even though provisional; this fall is emphasized by a symmetrical repetition of the melodic pattern with fall on the tonic B flat. In such a manner do first beats reveal themselves in  $\frac{3}{4}$  time.

In the first case, we have symmetry commencing on the first beat, in the second case, symmetry commencing on an off-beat.

The rhythm of a composition is, therefore, in some cases, revealed by tonality alone. We should like to draw attention once more to the fact that the themes quoted have been chosen purposely without harmonic bass and with no musical context. Our remarks could be applied equally well to many other of Bach's fugues, such as, for instance, the D minor Organ Fugue, or the Fugues in C sharp minor and in G major from *24 Preludes and Fugues*. The melodic symmetry of this last fugue would seem at first to impose a  $\frac{2}{4}$  or  $\frac{4}{4}$  time signature rather than that of  $\frac{3}{8}$ ; nevertheless, the conclusion of the theme requires this last time signature. We have here the case of a time signature which is not always the true one. This is because, in the course of its development, the fugue changes its time so frequently that it would be impossible to mark the successive time signatures.



Were the time signature  $\frac{4}{8}$  adopted, it would suit the first formula, making it end normally on a first beat and on the tonic G. What follows does not, however, lend itself to such a time signature.

V. — A *harmonized bass* may run counter to the natural rhythm of the melody and we find interesting effects produced by this rhythmic duality. For example, the beginning of C. Franck's *Fantasia for Organ in C*,



if harmony did not intervene and impose another rhythm, would certainly be barred as follows:



Notice the influence of length on the tonic, felt already on the second note. Barred in this way, we would in all probability have had a platitude, whereas Franck's idea is lovely and ingenious.


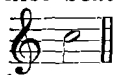
VI. — As we have already had occasion to point out, once the metrical framework has been firmly established, the listener, from force of habit, adopts it; even when truly rhythmic elements (especially that of length) that tend to break this metrical framework are introduced, the latter's influence is still felt. It may happen, therefore, in certain passages, that metre is no longer the expression of rhythm, even though the foregoing regularity continues to exercise its influence. If the struggle between metre and rhythm is prolonged, rhythm prevails and the bar line is reduced to nothing more than a landmark.

But, since it is this very contest that gives rise to our interest, we see here why classical composers were careful never entirely to break the metrical mould; they merely played with it.

It should, nevertheless, be noted that when the metrical framework is being established, viz. at the beginning of a piece (except in certain cases which occur frequently in contemporary work and more rarely in classical music), metre keeps to its normal function; metre being here the exterior sign for detail in rhythm.

This contest between rhythm and metre gives birth to *syncopation*, of which little will be said here, as it does not exist in Plainsong<sup>1</sup>.

Whether occurring in polyphonic music (embracing all parts) or in monody, syncopation, when complete, gives the impression of a slip or stumble because the listener who has become accustomed to the established metrical framework finds himself counting wrong. But, where no such framework has been established, syncopation is impossible. For the eye it may seem to exist but, no regularly recurring beats and first beats having been heard, the

note which seems to be syncopated  (except, of course, where the first beat is marked by a harmonized bass) is merely heard as  Hence, in free monodic rhythm, syncopation is non-existent.

To sum up, strictly metrical rhythm would involve the following:

1) Perfectly equal parallel periods, parallel phrases, and sections, grouped two by two; 2) equality of beats; 3) a first beat recurring regularly, in a manner clear, not only to the eye, but also to the ear.

On such a framework, in spite of its rigidity, have great works of art been produced. Rhythm, moreover, has endeavoured to free itself from metrical tyranny by syncopation, by transferring the length of a first beat to another beat, by the play of slurs, by the unequal length of phrases especially in the fugue style, which Reber compared to prose (the eight bar sentence being compared to poetry). All these have helped to emancipate rhythm from metrical tyranny. Modern music, on the other hand, often tends towards "free rhythm".

Finally, let us note that a measure, which is the external expression of rhythm, may be:

<sup>1</sup> Since syncopation is a struggle between previously established metrical regularity and true rhythm, it cannot exist in free rhythm where metrical irregularity is the rule. Cases of metrical regularity are rare in Plainsong and do not seem to have given rise to syncopation.

1) The smallest measure possible, or compound beat, in which case the signature can only be  $\frac{3}{8}$  or  $\frac{2}{8}$ , or a rapid  $\frac{3}{4}$  or  $\frac{2}{4}$ ; we have examples of this form of barring in the *Scherzo* with one beat to the measure, and in the *Waltz* (rapid  $\frac{3}{4}$  time in both cases), and also in a number of classical works in  $\frac{2}{4}$  time, each measure being given one beat by the conductor (see Beethoven's fifth Symphony, first movement).

2) A measure of medium length, comprising two, three, or four of the small measures or compound beats. This is the most normal form of grouping and should be made in accordance with the principles already set forth.

3) A very large measure, in which the first beats occur only on resting points, at the end of sections, phrases, etc.

The following illustrates the three methods of barring.

Polly put the kettle on, etc.

The small measure

The measure of medium length

The large measure

A very large measure

The very large measure, though interesting from a theoretical point of view, is not practical for purposes of conducting. Take, for instance, an *Adagio* in  $\frac{12}{4}$  time, with presumably twelve beats to the measure, but in which a conductor generally subdivides each beat into three.

#### § 4. — ACCENT AND STRESS.

One is accustomed to hear that stress or accent is necessary to mark a first beat and even, that without this stress a first beat cannot exist; but we have shown, in the preceding paragraph, that rhythm is possible without stress.

The influence of stress on rhythm can be proved by facts; it is not a question which can be settled *a priori*, but one which should be studied in the light of the works of great composers.

To begin with, stress is not in itself musical; unless required by the composer's thought, stress, instead of lending colour to a composition, would be a blot; we may, therefore, assume that it is connected with accentuation.

But an accent may exist apart from material force; we find a proof of this in the fact that a note may be accented on the organ without the intensity of sound being modified and without even the possibility of such modification.

The word "accent", moreover, has a number of different meanings and it is most important to avoid all possible confusion in using it. First, we have the *tonic accent* of languages, with which we need not at present concern ourselves; then, the *rhetorical accent*, in which we are not directly interested; finally, the *musical accent*, which we will seek first in music without words and which, with the help of examples, we will then define.

Let us begin by noting that the term *accentuation* applies not only to the stress or accent given to this or that note, but to the preparation and resolution of the accent, without which it would only be a noise. The term is, therefore, used here in its widest sense.

In classical and modern composition there are two kinds of musical accents differing completely in character and of which the following are two examples taken from the works of Bach.

1) The final cadence of the Prelude in E flat, for organ.

2) The opening of the G major Fugue.

In the first example we find an *appoggiatura* accent, i. e. an accent on the first beat; this type is generally long and heavy, calls imperiously for the note of resolution, and gives rise to the feminine cadence of which we shall speak later; the harmonic bass it will be seen, has come to an end on the tonic; the place of the accent is here obviously on the first beat. Everything combines to show it: the harmonized bass and the lengthened value of the

note which receives the harmonized bass. When the accent is omitted, we have an impression of syncopation.

In the second example, the contrast between the *staccato* of the repeated D's and the *legato* from D to G creates an accent on the third D, though we have here neither harmony nor pre-established metrical pattern to guide us and the accent falls unmistakably on the second half of a beat, namely on an off-beat (influence of the tonic G). The counter subject of the *Thema Fugatum* of the Passacaglia has similar accents.

In many cases the bass does not change on the note which has the accent but on the following one, thus showing the mutual independence of first beat and accent.

Ex.: *Concerto for piano* by Mozart:



Notice the interplay of slurs and the opposition of the *legato* to the *staccato*. We get here no impression of syncopation, the influence of a pre-established metrical framework cannot be felt since we are at the very beginning of the last movement.

The Sonata in G major for pianoforte, first and last movements, swarms with examples of the same kind; see also the Sonata in F major, n° 12, first movement, beginning at the eleventh measure. The accented third beats in no way detract from the rhythmic value of the first beats.

It may be said of these accents that they are *light* and of those on the first beat that they are *heavy*. Opponents of the doctrine, which we shall expound in the next chapter, admit of this distinction in music without words and confess that a light accent need not have a definite place in a given rhythm. We have shown how rhythm and a certain kind of accent are mutually independent; it remains for us to define the nature of the accent in Plainsong.

According to M. Vincent d'Indy there are many more accents to be found on the up-beat than on the down-beat: it is possible that he is considering, on the one hand, light or purely expressive accents, and on the other hand, certain heavier accents, which really belong to the first beat but which, when written on the up-beat, give an impression of syncopation and are therefore in opposition with the pre-established metrical framework.

## § 5. — THE FEMININE RHYTHMIC UNIT<sup>1</sup>.

Up till now we have been supposing that the note of repose is on the first beat, thus creating a masculine cadence. Let us now examine the feminine cadence, of which the above quoted example from Bach's E flat organ Prelude is the type. Here the harmonized bass comes to a halt on the first beat, giving a sense of heaviness; then, the melody rebounds from the first to the third beat and finds on the latter a definite resting place.

There are, however, many instances where the feminine cadence is not so clearly defined. A feminine rhythmic unit may be characterized by a semi-cadence or even by a simple breathing space at the end of a section.

In the nursery rhyme "Jack and Jill", which we have already quoted, the feminine ending at the conclusion of the odd lines is musically rendered by a feminine semi-cadence.

We may, therefore, say that the conclusion of a feminine rhythmic unit marks a resting point, definite or provisional, sometimes only a breathing space or the end of a melodic group, *on a beat other than the first beat*, sometimes even on an off-beat.

### 1) Feminine ending of a section:



### 2) Melodic separation of beats:



The breathing spaces are not necessarily effective but are implied by the melody, even if one rejects Czerny's interpretation which places a heavy stress on the beginning of each beat. We have here *feminine time groups*.

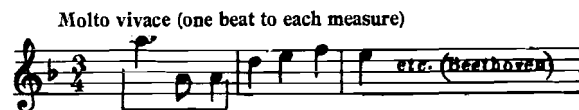
### 3) Rebound:



(Mozart)

<sup>1</sup> Cf. *Revue Grégorienne*, 1925, n° 3, P. 90-99.

4) Melodic grouping, properly so called:



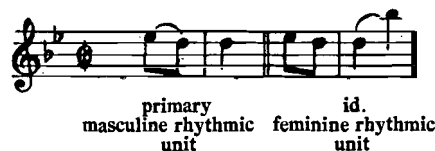
The first measure is here melodically isolated from what follows; so much so, that, in the introduction of the Scherzo, we have:



(i. e. the same formula completely isolated)

In a masculine rhythmic unit, as we have already pointed out, the melody halts on an accented beat. The true feminine ending or cadence is a prolongation of the masculine cadence leading on to yet another strong beat, which will, nevertheless, be weaker than the first (e. g. the third beat in a four beat measure). In other cases of feminine rhythmic units (semi-cadences, ends of sections...) the conclusion of the melody has no rhythmic support; it rests transitorily and precariously, calling imperiously for what is to follow, and it is rhythmically incomplete.

Here are two examples of a rhythmic unit :



The second differs from the first only by the added note.

If, as follows, we isolate the feminine time-group



do we obtain a feminine rhythmic unit? No, because if one yielded to the temptation of stressing the first note heavily, so as to establish it as the first beat, the practical result would be to blend all the elements of the group into one. Now, a single element cannot constitute a rhythmic unit. If, on the contrary, the first note is lightly stressed, the last note, prolonged by silence, takes on the rhythmic value of a first beat (unless some imaginary conception of rhythm has been previously at work). This is par-

ticularly noticeable in the above quoted example from Beethoven of which, in spite of the  $\frac{3}{4}$  time signature, the opening is heard as follows:



The isolated feminine group is transformed almost automatically into a masculine rhythmic unit.

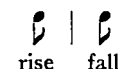
The feminine group, therefore, to be heard as such, cannot be separated from its context. It is the conclusion of a formula (the end of a phrase), or else, as in the Beethoven example, its character is revealed by what follows it, by *the immediate resumption of the melody*.

In short, all feminine grouping is of a *melodic order*.

The order of melody is not necessarily the order of movement. The latter admits of repose only on a strong beat; melody, on the contrary, may group notes in quite a different manner, and is free to end *melodically* on beats other than a strong one. But where there is no contrary indication, such as melodic outline, symmetry, accentuation of a section, established metrical regularity, etc., melody and rhythm conclude naturally together.

§ 6. — RISE AND FALL.

As has already been said, the smallest conceivable section must consist of at least two notes, one on the up-beat, the other on the down-beat. Together, they form a *primary rhythmic unit*



The terms *arsis* and *thesis* are synonymous with those of rise and fall.

With the broadening out of the section, these terms take on a wider meaning. A whole portion of the melody may be arsic, leading up to a long thesic portion, for a melody often seems to move only by acquired speed, the period <sup>1</sup> of rest beginning long before the final thesis is actually reached.

In other words, we have an arsic portion and a thesic portion of the melody.

In a section considered as one rhythmic unit, there can, in practice, be only one arsis and one thesis. But, as rhythm, in its wider sense, is the natural development of primary rhythmic units, the notion of arsis and thesis cannot be ignored either

<sup>1</sup> The word period is used here in its broadest sense and not as a precise musical term.



practically or theoretically. It would, however, be unmusical to consider only the smaller steps or beats of the rhythm. Both analysis and execution require a broader outlook.

In a primary rhythmic unit, *arsis* (or *rise*) and *up-beat* are one and the same thing, as are also *thesis* (or *fall*) and *down-beat*. We will use the terms *up-beat* and *down-beat* when speaking of measure, and the terms *arsis* and *thesis* when speaking of rhythm in its wider sense, unless indeed we are concerned with a primary rhythmic unit, which is completely isolated in a piece.

The rhythmic phenomenon that makes us feel the place of first beats has no name in modern terminology. Of the three terms adopted by students of Plainsong<sup>1</sup>, *ictus* (blow), which is far from satisfactory, *rhythmic support*, which suggests leaning on the note and is, therefore, generally wrong, and *rhythmic touching point*, which is certainly better, *ictus* seems to have prevailed.

The place of the *ictus* would be that of our beat, a beat corresponding to one marked by an orchestra conductor, including the decomposition of one beat into several in a very slow movement and the fusion of several beats into one in a fast movement, such as the Scherzo in  $\frac{3}{4}$ , but taken in one beat.

Thus, we should have an *ictus* of the first beat and an *ictus* of the other beats, and again, if we consider the phrase, taken as a whole, we should have an *arsic ictus* and a *thesic ictus*. All these notions will find their full development in the following chapter.

## CHAPTER II

### The Rhythm of Plainsong.

All measured rhythm is characterized by rigorous symmetry. In classical music this symmetry is happily tempered by the frequent struggle between metre and rhythm; in modern music it is often suppressed. In Plainsong (if one excepts hymn melodies) strict symmetric form is very rare.

#### § 1. — PROPORTION OF PARTS IN THE PERIOD.

Plainsong does not lack form, for balance, which is necessary to form, need not necessarily be symmetry.

True, an introit, with its psalm and repeat and, especially, an allelúia with its verse and *da capo senza replica*<sup>2</sup>, remind one, by

<sup>1</sup> The late Dr. Palmer defined *ictus* as "impulse of the voice" (translator's note).

<sup>2</sup> It will be remembered that in the classical minuet the repeats are made before the Trio but are left out at the *Da capo*; hence the expression *Da capo senza replica*. The same holds for the allelúia sung once after the verse.

their plan, of the Minuet or the Scherzo. And again, classical *Rondo* form is suggested by a respond such as the *Libera*. This respond opens with an extensive initial sentence composed of three musical periods, *Libera*, *Quando*, *Dum vénéris*; then follow in succession, three couplets, the verses: *Tremens*, *Dies*, *Réquiem*, between which we hear *Quando celi* after *Tremens*, *Dum vénéris* after *Dies*, and finally, after the verse *Réquiem*, the repetition of the whole of the beginning with its three parts. A *Kyrie*, for instance, will give out one theme for the *Kyrie*, another for the *Christe*, and unites the two on the last *Kyrie*.

But these parallel periods, phrases and sections, generally vary in length. They are, nevertheless, fairly clearly defined. In the Vatican edition, the whole bar generally indicates the end of a period and, in consequence, marks a true cadence giving a sense of complete repose. This bar, moreover, indicates a silence of the length of one note. Such is the traditional interpretation, which need not, however, be adhered to mathematically.

The divisions and subdivisions of a period are indicated respectively by a half bar and a quarter bar. The half bar generally indicates the end of a phrase, and the quarter bar the end of a section<sup>1</sup>. In both cases the time for necessary breathing should be taken from the value of the last note. The Solesmes rhythmic editions have been very successful in bringing out the precise value of this note and, consequently, of the bar itself. Its length being thus clearly defined, the section may again be subdivided into smaller more or less independent melodic groups, which, however, should not be unduly marked by exaggerated breathing. Here again, the lengthening dots of the rhythmic editions, which double the length of a note, are of invaluable help to the singer.

In the following chapter, we shall see how ends of periods, phrases, and sections, should be shewn in the accompaniment.

#### § 2. — THE ICTUS OR SMALLEST ELEMENT OF ANALYSIS.

According to the most generally accepted interpretation, there is, in Plainsong, a typical value of duration or typical time unit, which may be multiplied but cannot be divided. In our music the time unit may be multiplied and it may be divided and subdivided into two, three or more smaller values. Plainsong has a *first beat*, in the same sense as *first number* in mathematics and, consequently, indivisible. This time unit, which may be represented by our modern quaver, is, therefore, the one fundamental

<sup>1</sup> In the Vatican edition, certain quarter bars are certainly debatable, others are wrongly placed. Only a careful analysis of the melody (see § 4. — concerning feminine endings) will show whether the musical sense does or does not allow for a break.

element in the detail of rhythm; it is always equal to itself as our modern beat may be said to be equal to itself.

Grouped in twos and threes, these time units or notes form binary measures and ternary measures represented by small  $\frac{2}{8}$  and  $\frac{3}{8}$  measures. These small measures go to form larger groups in which they figure as beats, said to be *compound beats*. As the value of the time unit is unchangeable, the compound ternary beat is one third longer than the compound binary beat and must not be confused with our modern triplet, which is equal to two quavers or a crochet.

For the moment we shall confine our attention to these small measures or compound beats. The first note of each of these binary and ternary subdivisions may be compared to the first note of a beat in modern music. Both carry an *ictus*, in the sense already defined, i. e. an ictus of variable importance. We have shown by what objective criterion the place of beats may be determined in other music. The same method will serve to indicate the place of the ictus in Plainsong.

The singer does not *create* the ictus, for this element forms part of the rhythmic movement itself. The interpreter should not ignore it, but he need not accentuate it any more than he need accentuate every beat in modern music, especially not the first beat in every measure.

I. *The ictus, a rhythmic phenomenon.* — Our critics begin by disputing the presence of an ictus every two or three notes and they maintain that to reduce all melody to  $\frac{2}{8}$  and  $\frac{3}{8}$  time is to carry analysis too far, and to cut up the melody unduly. Our reply is that we do not reduce all melody to  $\frac{2}{8}$  or  $\frac{3}{8}$  subdivisions. Taking a broader view of rhythm, we imagine far larger measures, made up of compound beats, so that we get an ictus greatly varying in importance. Beats, even in modern music, must finally be reduced to binary and ternary divisions, but what musician, because of this, has ever felt bound to cut up a melody pulse by pulse or measure by measure? The aim of all rendering should be to express the character and style of each period and its elements and such expression does not prevent the *steps* (ictus) of the melodic movement being perceptible to the ear. This is true of all music, whether it be modern or Plainsong.

But our opponents go further and say or imply that the ictus is a purely metrical phenomena; that in free rhythm there can be no such metrical divisions and, therefore, no ictus.

Rhythm (in its general sense), they say, can only consist in the linking together of rhythmic units (concrete sense) between which one has no right to place a bar line or its equivalent. Thus, the first line of the hymn *Ave maris stella* is made up of three primary rhythmic units, (one for each of the three words) with *arsis* and *thesis*. No need to occupy ourselves here with any questions of

metre. If, however, you would have it so, it is the poet's idea that should be followed. He has used *tonic trochae* (false trochae incidentally, each consisting of one accented and one unaccented syllable). Thus, the metre begins on an accented syllable, and, if the terms *arsis* and *thesis* are used for rise and fall respectively, the accent is *thesis*. But, in that case, the terms *arsis* and *thesis* are used in a sense which contradicts the one outlined a little while ago. Some people, then, talk of a *thesis*, others of an *arsic* accent. But, in each hypothesis, the accent is *ictic*, which would give the schema:

♩ ♩ | ♩ ♩ | ♩ ♩ |

A-ve ma-ris stel-la

Our critics would seem to have fallen out among themselves on a purely verbal point.

To those who reproach us with confusing rhythm and metre we reply that these are two entirely different things, but that the normal part played by metre is to give to a first beat the character of a fall or pause, which character makes it the exterior sign of rhythm considered in its detail. As already stated, once the metrical framework has been firmly established, there often arises conflict between metre and rhythm, because, from force of habit, the listener continues to feel the influence of metre. In such cases the ictus is reduced to a *purely metrical* phenomenon. But, when the metrical framework is being established, the ictus is both a rhythmic and a metrical phenomenon and we know by what means it impresses itself upon our musical understanding. In free rhythm, obviously, no such conflict between rhythm and metre is possible, and in consequence there can be no purely metrical ictus. Certain notes, however, will attract our attention by those characteristics which we have already described; only, these ictic notes will not recur at regular intervals as they do in measured rhythm. But, whether we consider the small measures or compound beats, or the larger measures made up of these compound beats, we find no fixed metrical framework but one which is constantly being renewed, no one fixed metre but a series of measures of unequal length.

The principles set forth in the preceding chapter, and which we shall apply strictly, will enable us to give clear rules for the rhythmic analysis of Plainsong.

II. — *The Latin accent.* — Controversy has raged around the subject of syllabic chants. The former example of a pseudo-trochaic rhythmic unit shows the importance of the part played by the Latin text. It has been granted us that in music without words there exists a light accent which is called an expressive

accent. But the tonic accent of modern languages does not belong to this species but to the long and heavy species. This we know by the fact that all mediaeval poetry treated the accent in the way in which classical poetry treated the long syllable, which syllable undoubtedly carried an ictus.

In short, transported into this field of enquiry, the question reduces itself to that of the nature of the Latin accent. Our modern languages, arising as they do from Latin, cannot, in their present state, have their tonic accent on the up-beat. Indeed, except in a few rare cases, composers always place on the down-beat the syllable which is said to be accented.

But, it is no less certain that during the classical period (that of Cicero, Virgil, Horace...), the accent played no particular part in the ordering of rhythm. This was determined solely by the interplay of long and short syllables, the accent being sometimes short and sometimes long. The scanning of any Latin verse will make this clear. At this period the accent was merely acute.

Gradually, however, the accent took on a peculiar intensity; the notion of quantity (length and brevity) was finally lost sight of and a new type of versification came into being, founded on the alternation of accented and unaccented syllables (tonic rhythm). There was a period of groping, of confusion, and even of mistakes, between the reign of classical metre and the introduction of tonic rhythm. Now, it was at this time, that a very considerable portion of Plainsong melodies was composed or adapted. What right, then, have we to assume that the composers of these melodies submitted blindly to the laws of tonic rhythm, which were only to hold undisputed sway at a later epoch?

III. — *Rhythmic analysis applied to Plainsong.* — After all, we need only open a *Graduale*, analyse the melodies and note the place of the accent. The question cannot be settled *a priori*. True, it has been affirmed that music set to words has no rhythm save that of the verbal text to which it is allied, i. e. that it has none of its own. This assertion has been contradicted by facts; words may sometimes modify a melodic group by necessitating a breathing space at a given point, but our critics do not seem to distinguish clearly enough between a *melodic* and a *rhythmic* group, owing to the fact that for them the ictus has only a metrical and, therefore, an artificial character.

Taken at random in the *Vatican Graduale* we find:



(Ferial *Sanctus*)



(Whitsunday *introit*)



(Hymn: *Ave maris stella*)

and such examples might be multiplied by the thousand. Note again the incipit of the introit, *Resurrexi*, the firsts *eis* and *Dómine* of the introit *Réquiem*, where, in reality, the note placed on the accent would seem to be only an anticipation of the one that follows. In all these cases it is musically impossible to hear the note bearing the accented syllable (the first of *Sánctus*, the second of *terrárum*, the third of *Resurrexi*, the first of *Virgo*) as marking a first beat. Only a course and unmusical accentuation would impose the ictus in this way, whereas, the true rhythm stands out with admirable clearness.

The accent may, therefore, actually be on the up-beat, as in other cases it may be on the down-beat. If, in the cases cited, which are examples and not exceptions, the accent is really on the up-beat, no one has a right to say that in purely syllabic chants the accent is necessarily on the down-beat. As in syllabic chants all rhythmic indications are lacking, we can only discover their author's intentions as to the accent, by the study of their treatment of it in ornate chants.

So far, we have dealt with the principle of grouping and of length as a factor in rhythm. In syllabic chants, the MODAL SENSE may also serve as a guide. For example, *Dies iræ, dies illa*. With an accent on the first beat, we should have to scan :



doubling the last accent in order to give the last syllable of *illa* a solid resting place<sup>1</sup>. Scanned as follows



the rhythm could only make itself felt by a rather brutal method of accentuation or by means of the binary metrical framework which so far has been quite regular<sup>2</sup>. In any case an im-

<sup>1</sup> It would be possible also not to double anything and to link up without pause with what follows; in such cases (see section IV), a series of ictic accents is produced; this could be done here and would give *iræ* and *illa* feminine endings. But the melodic outline which characterizes such feminine endings is completely lacking, at least to those who have no preconceived theory on the Latin accent (see how Saint-Saens uses this theme in his *Danse macabre*; see also Chapter I, end of § 5).

<sup>2</sup> Or by means of the harmonic bass, whose influence often preponderates, although there is no question if it here.

pression of syncopation would be given, which is altogether foreign to Plainsong methods of expression. Once again let us point out that the hypothesis of the accent coming necessarily on the first beat is contradicted by the facts to which we drew attention a little while ago. Let us analyse the melody itself. D is the tonic and the verse divides very naturally into two. The lengthening of the accent of *illa* was only the consequence of our first hypothesis, and has no objective foundation. As the appearance of the tonic calls naturally for a first beat, I try the following:



taking the penultimate D to be simply the anticipation of the last D. Compare this with the antiphon:



or even with Bach's fugue in D minor where the influence of the tonic is no less characteristic.



Here is another example of the influence exercised by the tonic in the Prose *Lauda Sion*:



(G is the tonic, see note above on *Dies iræ, dies illa*).

That which follows in these sequences shows very clearly that the composer has given length to the melody on weak syllables (*Tuba mirum, Liber scriptus* etc.), and did not, therefore, allow himself to be influenced by the pseudotrochaism of the text.

We may, therefore, conclude that the first beats of the small measures (or the division of the melody into compound beats) must be determined without the help of the Latin text. It is a fact revealed by the analysis of the melody that ictus and accent in Plainsong are quite independent one from the other. In an isolated word of two syllables such as *Deus* (primary rhythmic

unit), the ictus affects the last syllable because it is naturally long (not prosodically, but because of the silence which prolongs it), the accent comes on the up-beat i. e. and we have a

masculine rhythmic unit with a light arsic accent. Moreover, in a phrase taken as a whole, the accent may come either on the up-beat or on the down-beat; sometimes, various interpretations are possible.

In applying such a rhythmic theory how, in practice, should the Latin accent be interpreted? It must, if an intelligent reading of a text is to be achieved, retain a certain degree of prominence, and in most cases a certain degree of intensity. On the other hand, the very definite character of the rhythm should be preserved and anything which might destroy it, such as a heavy and prolonged accent, should be avoided. There are many cases in modern music where the musical accent in no way prevents the first beat from being given its proper place. In this way, the rendering acquires a distinction which is foreign to the exclusive use of the heavy accent. In Plainsong, therefore, this moderate stress on the accent fits in very well with our rhythmic analysis.

IV. — *Practical Conclusions.* — In the more detailed analysis of rhythm, it must be remembered that single notes in Plainsong are of equal length, but that a note may be doubled and even trebled. A compound binary beat may have two single notes or one doubled note; a compound ternary beat may have three single notes or one trebled note or one doubled and one single note. These subdivisions should, at first, be figured regardless of words or neums, as follows; for all binary subdivisions: But, as soon

as the student has made himself familiar with this kind of analysis, he should transcribe the text exactly as given in the Solesmes modern notation editions, with a small vertical line or episema to indicate an ictus where its place might be open to doubt.

According to the principles already set forth, the notes which should receive an ictus are:

1) *In syllabic chants*, the final syllable, and, in words of more than two syllables, the antepenultimate syllable of each word:



An isolated trisyllable has an ictus on the final syllable and another on the first syllable. But, as the final syllable is the

decisive factor, if the trisyllable be preceded by a dissyllable, the tonic of this latter may carry the ictus:



As also:



All other combinations are governed, like these, by the length of the final syllable. Some cases are doubtful; in such, the vertical episema in the Solesmes editions are of great help (see especially the editions in modern notation).

## 2) In ornate chants, the ictus occurs:

1. At the beginning of all groups (except where the contrary is indicated)<sup>1</sup>. When a single punctum precedes a neum and is on the same syllable as the neum, the punctum and not the first note of the neum receives the ictus. Kyrie IV is an example of this:



the vertical episema dispels all doubt here. In the earlier Solesmes editions, this note was dotted.

In the communion, *Cantábo*, the ictus is on the first note of the word *Dómino*:



If this punctum, which should be well emphasized, were really doubled in the rendering, the second ictus would affect either the following note or the one just after it. In practice, the accompanist should, on such occasions, remain discreetly vague.

<sup>1</sup> Neumatic notation need not necessarily be rhythmic; in perfect *legato*, by which the notes of a series of neums are united, the division of the neums may be visible to the eye but the ear does not perceive them. Other factors, such as length, the place of syllables, modality, etc., intervene and make the rhythm clear. In practice, however, except where the contrary is indicated, the first note of a neum is ictic.

2. On notes specially marked with the vertical episema or ictus sign. This sign subdivides certain neums of five or six notes, and, in other cases, it marks an ictus, which the ordinary grouping would not reveal but which is shown by certain indications in the MSS.

3. On long notes i. e.

a) those marked in the rhythmic editions with the lengthening dot;

b) *bi* and *tristropa*;

c) the *oriscus* and the *pressus* (Plainsong students are familiar with these terms; cf. the preface to the Vatican edition). The *pressus* should never be treated as a syncopation; the two notes are tied and the first has an ictus. Two clivis, with one tied note common to both, should not, therefore, be counted separately as two binary beats.

In certain cases, the ictus is marked on the second note of a neum which might have been taken for a *pressus*; the second note is, in fact, a repeated note and the two notes are not tied but distinct from one another; the second receives the ictus.

The same holds good for a note sounded several times, reverberating on the same degree of the scale for more than three simple beats.

d) The note or two notes immediately preceding a *quilisma*; in the latter case, the first note is marked with a dot. The dot after the note immediately preceding the *quilisma* is purposely omitted because the rule is always to lengthen this note.

e) The last note but one of a *salicus*<sup>1</sup> is, in practice, almost doubled. In a three note *salicus*, the *second* note has the ictus, whereas, in a *scandicus*, the ictus is on the *first* note. In the rhythmic editions, the ictus is always shown by the vertical episema.

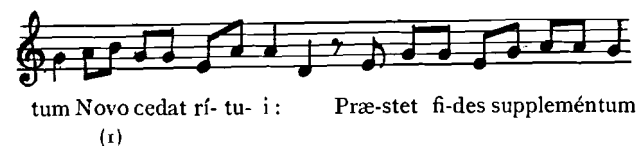
These indications will make the rhythmic analysis of a piece of Plainsong an easy matter. It should be remembered that, at a whole bar, a silence of the length of a single note must be observed. A single note before an ictic note should be joined to the preceding group or, at the beginning of a piece and also at the beginning of a period — that is to say a single note after a whole bar — be counted on the up-beat.

Examples:

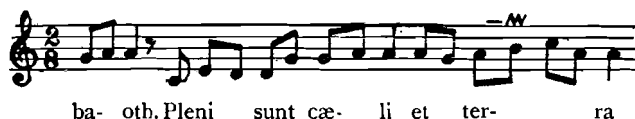
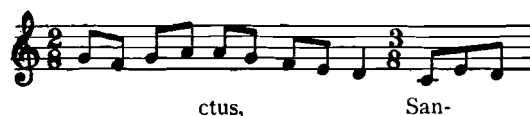
Vatican Tantum ergo:

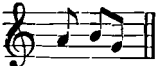


<sup>1</sup> The *salicus* generally has three notes, but, sometimes as many as four or five.



Sanctus from Mass II.



<sup>1</sup> The vertical episema is placed as follows  (uniform binary rhythm). Both interpretations are possible and the ictus is here of very little importance.

Reference to the Vatican editions will show the exact application of the principles we have developed. We are assuming, moreover, that the accompanist is familiar with the theory of binary and ternary subdivisions.

### § 3. — THE PRINCIPAL ICTUS OR THE GROUPING OF COMPOUND BEATS INTO MEASURES.

It would, as we have already said, be unmusical to consider only the small measures or compound beats and to give the same importance to every ictus. These small measures or compound beats should be grouped so as to form larger measures in which the first beat may be compared to our modern first beat. An ictus which marks the first beat of a large measure will, therefore, be more important than an ictus which does not do so. We shall now try to define the character of this first beat ictus.

In the large measure, the first beat marks a resting point, that is to say — except in feminine cadences — the end of a period, phrase, or section. It is long and, therefore, generally more or less *thesic*; at times, however, it may also be definitely *arsic*.

A principal ictus will therefore affect:

- 1) The final note of phrases, i. e. a long note followed by a whole bar.
- 2) The notes of semi-cadences, often but not always long, coming before a half bar or a quarter bar (this indication does not always hold good as certain quarter bars are incorrectly marked in the Vatican editions).
- 3) All long notes whatever (see enumeration given previously under § 2 — IV, 3, p. 77).
- 4) Finals of certain words, especially when these words either by their meaning or by the rhythm of the poetry are more closely connected with what immediately precedes than with what follows, e. g. the middle of a line of poetry: *Dies iræ, dies illa*.

The larger measures thus formed will, of course, be of unequal length.

Of two long notes in succession, the first (in contrast to the brevity of what preceded it) is often considered analogous to our modern first beat. This is noticeable, for instance, in feminine cadences or in endings with a clivis or a podatus, which has both notes doubled, and in other cases mentioned further on under § 4, II; and in chapter III, § 2, (6).

But the note which precedes a quilisma should always count as the first beat of the large measure, even when preceded by another long note, for, in this case, it is the more strongly emphasized of the two. It is always preferable to look upon these notes before a quilisma (even when, in practice, they are doubled) as lightly

stressed and retarded, rather than mathematically doubled. This is indicated by the horizontal line in cases where, in the place of two, three notes before the quilisma have to be retarded. It follows that an ictus is necessary on the note immediately preceding a quilisma; the note preceding that one may carry an ictus (of lesser importance) if we look upon it as doubled or, better still, it may simply be retarded and on an up-beat.

Below, are other examples where, for various reasons (final syllables, melodic and tonal sense), the second rather than the first long note marks a first beat in the large measure <sup>1</sup>.

quam fe- cit bo- nus (*Hæc dies*)

(alle) lú- ia (Di) es (*Xmas Alleluia*)

(classical formula)

The following are examples of analysis by large measures:

(care should be taken not to transform the ternary groups into triplets).

In *cérnui*, the last syllable is felt to mark a first beat already on B, even though the following G is long. In all similar cases, the

<sup>1</sup> There is no indication that can be applied indifferently to measures admitting of binary and of ternary analysis, i. e. to a 2/4 and to a 6/8, to a 4/4 and to a 12/8. Since any of the large measures of which we have spoken may contain both a binary and a ternary beat, we have adopted the general signs: 2, 3 or 4.

rhythm should be marked in this manner. On *ergo*, (at the middle of the line) one hears a first beat on the second syllable of this word, while the melody, with two notes on the syllable, has a feminine ending.

In ornate melodies the analysis is even simpler. Ex.

(*alleluia*, second Sunday after Easter; the meaning of the sign (F) will be explained later on).

Moreover, in many cases, several interpretations are possible. Length, however, on any assumption, plays the most important part.

#### § 4. — THE FEMININE RHYTHMIC UNIT.

I. *Feminine groups*. — Melodic feminine endings are fairly frequent in Plainsong. We know that they are characterized by a melodic group ending on a non-ictic note. The concluding binary or ternary subdivision of the melodic group is called a *feminine group*.

We have, therefore, to consider:

1) *Feminine endings of sections*. Very frequent is the case of a clivis or a podatus, both notes of which are lengthened without being doubled, followed by a quarter or half bar <sup>1</sup> (Dom Mocquereau's *post-ictic cadences*); see above, the example from the *Alleluia* for the second Sunday after Easter, where the two quarter bars and even the half bar involve only a slight *rallentando*. We have put a comma and the letter (F) to indicate a feminine ending. In the rhythmic editions, the breathing space comma may be considered as equivalent to the quarter bar.

The clivis is also frequently lengthened and not followed by a quarter bar, in which case it belongs melodically to what precedes and would quite naturally be separated from what follows.

2) *Certain final syllables*, either because of the literary sense alone, or because of the literary sense and that of the melody.

Ex.

De us Pa ter (*Glória from Mass IV*)

<sup>1</sup> Cf. restrictions on this point, p. 42, note 1.

The final syllable of *Déus* might easily be given an ictus if the melodic movement were not immediately resumed.

As an example of another style, attention may be called to the end of the word *ergo* in the Vatican *Tantum ergo*. Here we have a clivis with a feminine ending.

See also the end of the word *vocem* in the introit for the Rogations and the end of the word *dexteram* in the offertory for the same festival etc. etc.

See also the introit: *Puer natus est*.



(the bow line here marks the melodic grouping); see further on in the same introit the end of *magni*.

3) *Melismatic melodies*, where no indication even of retarding is given.



The ternary group, which ends the big bow line, is a *feminine group*.

These examples should suffice to show where, in general, melodic feminine endings occur. It is impossible to point to any material sign by which to recognize them, except, of course, by the quarter or half bar. The accompanist must rely on his musical instinct, especially, as in certain cases several interpretations are possible. The choir must on no account mark these melodic endings by lengthening the note where this is not indicated.

The rhythmic rules for the place and choice of chords, given later, will throw further light on the subject.

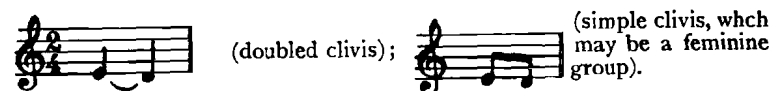
II. *Feminine cadences*. — 1) When a *clivis* or a *podatus* ends a piece or a period, both notes are necessarily doubled because the final note must have some support or ictus on which to find rest. The first note being the first of a group must also have an ictus. If the last note but one were not doubled, the length of the last note would rob the note preceding it of its value as first note of a group. In measured music, no doubt, one can find endings with a short note on the first beat followed on the off beat by a long note. In such a case, the *harmonic bass*, placed on the first beat,

and helped by the *metrical framework*, establishes the rhythm of the whole, and the melodic note placed on the first beat is little more than an embellishment. This is what occurs in a great many appoggiaturas but is hardly to be met with in Plainsong.

A doubled clivis, if we consider only the small divisions, would, be represented by two small  $\frac{2}{8}$  measures:



But the rhythmic relationship of these two notes is the same as that of the two notes of a simple clivis, so that in the larger measure we hear an enlarged clivis:



and we have, therefore, a *feminine cadence*.

In modern music, however, a feminine cadence presupposes a heavy accent on the first beat, followed by a resolution, which is often simply a rebounding of the melody. In Plainsong, the feminine cadence does not, as a rule, call for a heavy accent, often, indeed, there is no accent at all, and the final note is rhythmically, more important than a rebounding of the melody. The resemblance is therefore, incomplete; but, as the harmonic treatment is, in both cases, appreciably the same, the comparison is not without its practical value<sup>1</sup>.

2) The case of *two dotted single notes* (on separate syllables), at the end of a period, and on the same degree, is practically the same:



3) We have also what might be called the *embellishment* of the same formula, viz.



<sup>1</sup> In Plainsong, *compound cadence* (used by Dom Desroquettes) would be a good substitute for *feminine cadence*, because several compound beats are necessary to make up this cadence. As the harmonic formula required is that of feminine cadences, we have retained the latter term.



The importance extended to the first Ds, by slowing down, here again creates feminine cadences, and the thesic character of the note D is particularly clearly indicated.

If, in the place of a neum of three notes, such as a *torculus* or a *porrectus*, we have merely a neum of two notes such as the *podatus* or the *clivis*, i. e.



the rhythmic interpretation need not necessarily be the same. But, if the *final syllable* is already heard at the beginning of the formula, the accompanist should proceed in the manner indicated for feminine cadences. Moreover, a final syllable occurring at the beginning of a neum immediately takes on a certain thesic character (see end of *cérnui* in the *Tantum ergo*).

4) A case, which should be placed alongside of those already given, is that of the *pressus* followed by a doubled note. We have here, as with the *clivis* (if the movement of the melody is descending), two doubled notes: that which makes the *pressus* and that which follows it.

The following examples, should also be understood to have feminine endings. The accent is long and the first beat of the large measure should, consequently, be placed on the accent <sup>1</sup>:



On the other hand, in certain pieces, in the Antiphoner, one may expect to find the cadence by means of *two single notes*, placed on the same melodic degree, and either doubled or (if the cadence is only provisional) merely retarded, because this was the solution for absolutely identical cases. A judicious and competent choirmaster will perhaps be able to lay down a uniform interpretation and it will be the business of the organist to follow his lead.

<sup>1</sup> In other cases, the note with the accent, even when doubled, keeps the lightness of an arsis; the doubling of the note indicates only a lengthening, and the final syllable retains its habitual character. The matter is, therefore, one of interpretation. See what has been said on two long consecutive notes p. 79.

## CHAPTER III

### Rhythmic directions concerning the accompaniment of the Chant.

Rhythmic analysis (the small and large measure) imposes laws on the accompanist as to 1. the *place* and 2. the *choice* of chords.

#### § I. — THE PLACE OF CHORDS.

##### I. — The small measure.

As a general principle, the harmonic bass should not be changed on any other than an ictic note and, consequently, should not be changed on the second or third beat of a small measure but on the first beat only (and not even on every first beat, as will be shown later). Too rapid a harmonic movement makes the melody heavy and is awkward for the singers; a note for note accompaniment is never tolerable in any kind of music and would not be so in Plainsong.

Sometimes, however, certain reasons may make a change of harmony advisable even on the second or third beat of the binary and ternary subdivisions. These reasons may be:

a) *Modal*; a chord placed on the first beat may not be suitable for the second or the third beat, according to the modal rules given in the third part of this book.

b) *Melodic*; we shall learn also that melodic feminine endings should be *consonant*; in some cases it so happens that the chord placed on the ictus may be unsuitable for a feminine ending.

c) *Harmonic*; when it is impossible to find a chord which can be maintained during the whole of the subdivision and, especially, when a transition chord gives smoothness to the writing.

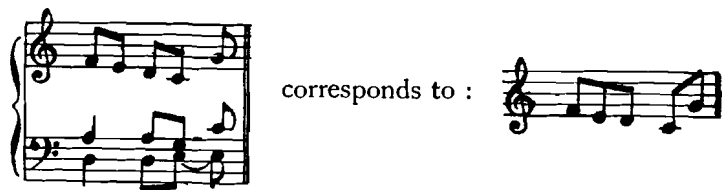


(Introit *Inclina*)

<sup>1</sup> The last G of the tenor is then resolved on the note F, on the up-beat, while the melody gives out the note A (on the syllable *et*). At the beginning of *exaudi*, which follows, there should be, at least, some accessory movement in the accompaniment (for instance, the F in the tenor could rise to A). A discord on a note of provisional rest keeps up a sense of movement.

In such a case, the non-ictic chord should never be longer than a single beat; otherwise, by its length, it would create an ictus in opposition to the rhythm of the melody.

If, for instance, a chord placed on the last note of a binary or ternary subdivision is kept on over the following ictus, an actual syncopation is produced which is quite incompatible with the true rhythm. Ex.

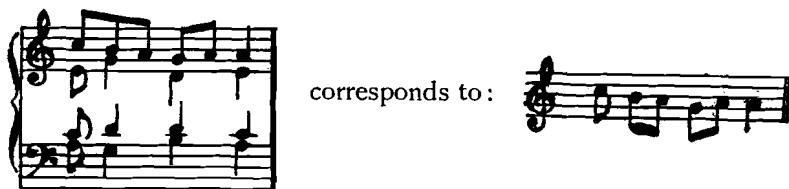


corresponds to :

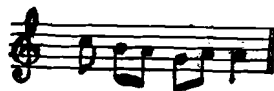


Any chord, therefore, placed on the last note of a binary or ternary subdivision must be followed, immediately, by a chord on the ictus.

And again, any chord placed on the second note of a ternary subdivision must be followed by another chord on the third note of the subdivision and by yet another on the ictus of the next subdivision. Ex.



corresponds to :



These rules apply to intermediary parts. We see in the following example what should not be done.



rhythm in tenor, bad      acceptable

An example such as



shows harmonic movement which is acceptable, because the syncopation in the alto is corrected by the more important movement in the bass.

In short, the accompanist should avoid giving any impression of harmonic syncopation.

## II. — *The large measure.*

The same principle applies to the large measure, of which the first beat must receive its proper harmony; if, for some reason, this first beat is deprived of a chord, this must not be in favour of some less important ictus, for then, a sort of harmonic syncopation would occur.

From this we deduce that:

1) Every note marking a rest, e. g. masculine cadences or semi-cadences (feminine cadences will be discussed later), should be characterized by a change in the harmonic bass and not only by movement in the mean parts.

The following example



is harmonically correct, but the bass makes of the melodic E the first beat of the large measure and turns the formula into a feminine cadence. That this is the case must first be ascertained by the accompanist before writing his accompaniment.

Movement in one of the mean parts may, however, suffice, providing that the bass has been previously placed on a note marking an important ictus. See above *Aurem tuam ad me* (Introit *Inclina* p. 85). We have here a pedal bass.

2) Every long note should be marked by movement in at least one mean part and, frequently, by a real change of harmony.

Ex. :



Offertory, Feast of Corpus Christi.

Nevertheless, the harmonic movement may be nil, if the chord required is the same as one given already to a previously heard long note.

The following treatment was suggested in the first part of this book and may be used in cases similar to the one we now quote.



The same process or any other equivalent, such as passing notes or passing chords, is useful in discreetly emphasizing the repercussions or resumption of a note sustained over a long passage, in all cases where it is sought to regularize the movement by making the harmony mark every ictus.

3) When two long notes follow one another, the first, as we have said, is often the more important; if only one harmony be used, this should be written under the first of the two notes. This is the case of a great many clivis; as a rule, it is advisable to consider each one of these as an appoggiatura.

Ex. :



4) The note immediately preceding the quilisma should be marked by some harmonic movement, even if the preceding note is long.



5) An ictus following one that marks a resting point or a long note, just because in the large measure it cannot mark a first beat (the latter is on the preceding long note), should not, in practice, be given a fresh chord. Sometimes, however, the laws of harmony make it impossible to maintain the preceding chord; where a change is necessary a chord of transition should be used and its length should never exceed that of a compound beat.

See above example: *Dómine, convértere*, in which harmonic movement takes place only on long notes.

When the melody is taken up by a long note, immediately after a cadence, the cadence note takes precedence of the long note.



(the mere change of position of the mean parts does not here constitute harmonic movement). This long note may, however, be marked by some harmonic movement.

6) Avoid placing a chord on an ictus, which nothing indicates clearly or, as a general rule, on any ictus of slight importance e. g. on the second syllable of words said to be dactylic (similar to *Dóminus*) when this syllable is given only one note.

Where an ictus affects short notes, the melodic context and the harmonic and modal requirements will show whether or not they should be marked by a fresh chord or by some harmonic movement.

The great principle to bear in mind is: that the length of a chord should always be in proportion to the importance of the ictus which it marks.

Where the rhythm is doubtful, the greatest prudence is required and harmonies used should be of a strictly neutral character.

## § II. — ON THE CHOICE OF CHORDS.

(*Harmonies of movement and harmonies of repose*).

The true chord for marking a resting point is the triad in its root position with the bass doubling the melody.

Any other chord offers a more or less transitory resting place and is, in consequence, to some extent, a chord implying movement, as in the following cases:

1. The melody gives the root bass.
2. The melody gives the third of the root bass.
3. The melody gives the sixth of the bass; this includes the chord of the sixth in all positions.
4. Dissonances (chords of the seventh, appoggiaturas etc.).

In the last case, the impression of movement is complete<sup>1</sup>.

<sup>1</sup> I allude, of course, only to the accompaniment of Gregorian Chant. In modern music, composers have used even so-called dissonant chords to mark resting points.

The bass of a chord of the sixth should be only momentarily doubled in the melody, i. e. either the chord must be brief or the melody must move on quickly to another position. The reasons for this have been given in Part I, with explanations.

We may, therefore, say that:

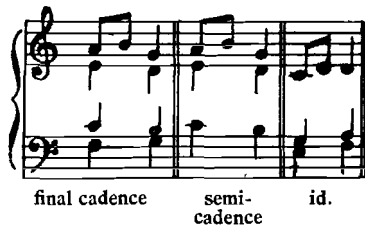
1° *On absolute cadences*, at the end of a piece or of a complete phrase (generally at the whole bar line) a chord of complete repose is required i. e. the triad in root position with the melody doubling the bass. For the first and second modes in D, this will be the chord of D minor; for the fifth and sixth modes in F, the chord of F major; for the seventh and eighth modes in G, the chord of G major. The same treatment is suitable for any cadence which, though not final, gives an impression of complete repose.

We shall see in the third part of this treatise that cadences of the third and fourth modes cannot be treated in a similar way (with the chord of E minor). Reasons for this will be given and it will be shown that cadences in these modes do not convey an impression of complete repose but make the listener feel that the melody is merely suspended.

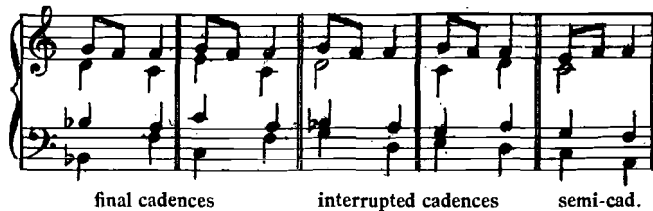
2° *On semi-cadences or on mere resting points* a chord giving more or less as required an impression of either incomplete repose or movement should be used.

1. In semi-cadence formulae, resembling those of final cadences, avoid giving an impression of complete repose and substitute a chord of the sixth for a chord in root position.

Ex.:



2. Semi-cadences on F, in the fifth and sixth modes, should be treated as interrupted cadences.



3. Other notes, merely marking a resting point, even before a quarter or a half bar, may be suitably accompanied by a chord with either a suspension or a passing note of some length in one of the accompanying parts, which will serve to keep up the movement, or by some harmony different to that used on the cadence or semi-cadence.



(sperent in te from Gradual Adjutor) (Agnus III)

Except on absolute or final cadences the usual fifth and sixth mode cadence chords in root position should be carefully avoided. We shall have more to say on this point in Part III.

3° *On an ordinary ictus*, a chord of absolute repose should be avoided. If the melody momentarily doubles the bass note of a chord, the latter must be of short duration or the resting point be brief, otherwise the harmony will become *static*. This is particularly true of major chords in root position.

Appoggiaturas, sustained passing notes, or suspensions, in the accompanying parts, are excellent for keeping up the movement, even and especially when they coincide with a sustained note in the melody. The same is true of a pedal bass with all the harmonic movement in the mean parts. Examples of such treatment have been given in Part I and readers are asked to refer to them.

4° *On a note immediately preceding the quilisma*, a dissonance is excellent (see above, p. 88, the example taken from the introit *Gaudemus*). Ex.



(Introit Da pacem)

5° *In feminine groups* or in cadential feminine endings, the *rhythm* indicates the place of chords but the *melody* requires that the conclusion or final note of the melodic group shall be an integral part of the harmony and not a foreign note of transition. It is the melody, therefore, which is the deciding factor in the choice of a suitable harmony. In consequence, the chord

chosen must suit both the beginning and the end of the feminine group, as in the following example :



or an appoggiatura may be used :



We see in the above example how the trend of a melody may be shown beforehand in the harmony, even in cases where there is no feminine ending :

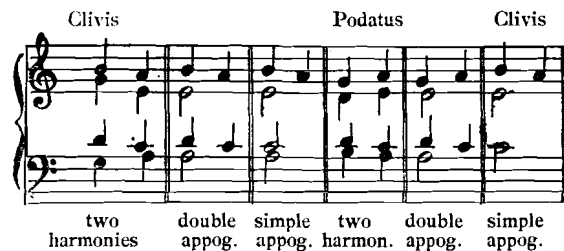


The lengthened G in the melody is foreshadowed by the preceding harmony.

6° *Feminine cadences or feminine groups, with both notes doubled*, should be treated according to the same principle. The first long note *must* be given a chord, the second *may* be given a fresh chord, but the first chord may also be maintained if it be suitable for both notes of the melody or if the first melodic note has been treated as an appoggiatura.

We refer particularly

1. To *the doubled clivis*, or to any combination which takes its place e. g. a *pressus* followed by a long note and to *the doubled podatus*.



On semi-cadences and on all incomplete cadences, and on simple resting points, it is preferable to use only one chord (appoggiatura).

On final cadences, which are always rather heavier, two harmonies are to be recommended, especially in the seventh and eighth modes, but a single harmony may be excellent on finals D and F.



2. To *two doubled puncta* both placed on the cadence note. The harmonic bass should mark the first punctum and a suspension in the alto or tenor be resolved on the final note.

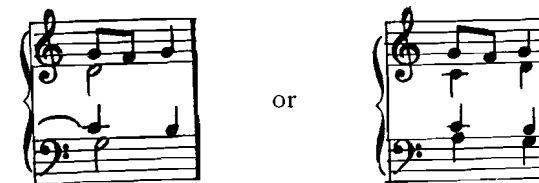


3. To what we have called the embellishment of the preceding formula i. e. a *torculus* or a *porrectus* followed by a *punctum* etc. The same harmonic solution must be adopted.



When a note of suspension cannot be prepared, it may, in spite of its dissonance, be treated as an appoggiatura and attacked without preparation.

A group of *two* notes preceding a final punctum admits of two solutions :



(see chapter II, pp. 82, 83, for details on *feminine cadences*).

If rhythmic analysis restricts the choice of chords, *modal* analysis imposes still further limitations on the accompanist. We will consider this question of modal analysis in Part III.

# PART THREE

## Gregorian Modality.

### CHAPTER I

#### The three modal groups.

##### § I. — CLASSIFICATION OF MODES.

It is well known that the great Gregorian scale (which extends from lower A to upper G) is a strictly diatonic scale, allowing the occasional use of the flattened *middle* B; moreover, the chromatic interval B natural to B flat never occurs.

But, whereas our modern classical system has only two tonic notes, C for the *major mode* and A for the *minor mode*<sup>1</sup>, Gregorian Chant has eight modes, of which the tonic or fundamental note for each is usually as follows: *D* for the first and second modes; *E* for the third and fourth; *F* for the fifth and sixth; *G* for the seventh and eighth (we shall see, later, that other tonic notes are possible).

The uneven or authentic modes are in a higher compass than the even or plagal modes; but if we consider the tonic notes and group the modes two by two, first and second, third and fourth, fifth and sixth, seventh and eighth, there are only four modes.

In comparing these modes, the following characteristic intervals will be easily recognized:

I-II tonic D	III-IV tonic E	V-VI tonic F	VII-VIII tonic G
minor 3rd D-F major 2nd D-E	minor 3rd E-G minor 2nd E-F	major 3rd F-A minor 2nd below tonic E-F	major 3rd G-B major 2nd below tonic F-G

In short, the first four have a *minor* third and the last four a *major* third above the tonic; but the first and second modes differ from the third and fourth in that they have a *major* second immediately above the tonic, whereas the third and fourth have a *minor* second. The fifth and sixth modes differ from the seventh and eighth, in that they have a semitone, whereas the seventh and eighth have a whole tone, immediately below the tonic.

<sup>1</sup> Once and for all let it be understood that *transposition* of a scale does not change its modal character, since the relationship between the intervals remains the same. Flats and sharps, made necessary by transposition, are not accidents.

Needless to say, Gregorian modes are not limited to these intervals; nevertheless, they serve to show by what special characteristics each tonic note may be defined.

The following table will give a general idea of the difference of range existing between the plagal and the authentic modes.



The interval of a fifth is common to both modes; the fourth, extending below the tonic, is peculiar to a plagal, the fourth above the tonic, to an authentic mode. We purposely omit the third and fourth modes from this figure, because their actual range does not correspond to what it should be theoretically:



##### § 2. — ALTERATIONS OF THE SCALE IN THE ACCOMPANIMENT.

Gregorian melodies were not composed with a view to being accompanied; the need of support for weak and uncertain choirs or perhaps merely the desire to satisfy our modern taste has, however, made organ accompaniment an accepted practice, whether for good or for evil. At any rate, every harmonic succession has its own peculiar colour and movement; but then, so has Gregorian Chant, and the difficulty lies precisely in uniting two things which were not created for one another; we shall, therefore, study the melodic text itself in order to discover the elements of our harmonies.

The least that can be expected of an accompanist of Gregorian Chant is that in his harmonies he should use no notes which do not belong to the melodic system of the Chant. For a long time the harmonic principles of our modern music were applied. Who does not remember hearing C sharp in a first mode, cadences on E major in third and fourth modes, and F sharp in seventh and eighth modes? Ready made scales were given to pupils to learn by heart; there were text books in which it was shown how to pass from D minor (with C sharp) to A minor (with G sharp), to F or to C; there were even instruments — *horresco referens* — which reproduced these harmonies mechanically, while the organist was content to play the melody with one hand. Who knows indeed whether such practises are yet wholly extinct? There have been theorists ready to uphold these alterations on the ground that the school of Palestrina used sharps on cadence formulae. It has, however, at last been understood that a free composition and an accompaniment are two entirely different things. The XVIth. cen-

tury had already lost the true Gregorian tradition, and is it not true that the development of harmony and counterpoint was one of the most potent factors in the decadence of purely monodic art?

To Niedermeyer is due the honour of having established a system of modal harmony from which any alteration was excluded. This he did in the face of bitter opposition. He could not, in the middle of the nineteenth century, foresee what progress was to be made in the execution of Gregorian melodies from the point of view of rhythm; we should not, therefore, condemn too severely his note for note accompaniment for which only the manner of the time was responsible. His method marked not only a considerable advance but opened the door to all future progress. Its influence for good on all music and particularly on organ music deserves to be recognized.

Now that we possess an official edition of the Gregorian melodies, compiled from existing manuscripts, it is our duty to study it and thus to form clear ideas on how to accompany the sacred melodies.

### § 3. — "A PRIORI" THEORIES CONCERNING MODES.

This is how the question is generally presented. First we are told that the note B should be natural, that the flat is introduced only so that the famous tritone, F-B, or *diabolus in musica*, may be avoided; the flat is, therefore, a strict exception.

Then, we are given so-called homogeneous Gregorian scales, in which the tonic note is said to exercise a preponderant influence just as it does in our modern scales.

B, except when otherwise indicated, should be read as natural; this is an elementary rule of execution. But to maintain that the flat is exceptional is a statement contradicted by facts. There are whole pieces in which the B never occurs except as a flat. This so-called accidental is frequently present when the note F does not appear at all; on the other hand, there are many cases of the tritone occurring with F and B in fairly close proximity one to the other; the proximity, far from being avoided, seems in some cases to have been sought after. Even if we admit the inaccuracy of certain flats in the Vatican edition, we must, nevertheless, recognize that the use of B flat is inherent to a modal system which cannot be explained by dogmatic assertions about an essential B natural.

Nor does this theory take into account the numerous cases of *modal modulations*, which the most superficial examination of the Vatican edition of the Gradual reveals. For instance, in a first mode piece we may find secondary cadences on F, exactly as in a sixth mode, or on A with B natural, its own cadences, on D, being thus transposed a fifth higher. In many cases one has to wait until the end of a piece in order to recognize its mode, as was observed by a mediaeval theorist. It is a far cry from this to the

set scale, homogeneous and clearly defined for each mode, although frequently and in spite of passing modulations, we do find true modal unity.

Moreover, although most first and second modes are in D, others (especially second modes) are in A; third and fourth modes, although generally in E, are sometimes in B natural; fifth and sixth modes, usually in F, are also to be found in C; we even find third and fourth modes in a tonality in which B flat is essential to the character of the mode. These facts, into which we will enter more fully, are in no way explained by the hypothesis which we are examining. If, in the scale of D, B natural is obligatory, it must be granted that the corresponding scale on A, which excludes an F sharp, is altogether different; why should the names of first or second mode be given to both indiscriminately, why are they not considered as two distinct modes? Certain theorists have not hesitated to assert that such is the case<sup>1</sup>. We have before us a question not of theory or of logic, but of *fact*. What we have said does not help to solve it but does show that the hypothesis of a Gregorian scale, homogeneous for each mode, with B essentially and constantly natural, were it upheld by all mediaeval and modern theorists, provides no better an answer and must yield before an examination of facts.

If Gregorian modality does not completely correspond to Greek modality, we must leave it at that and try to find its true definition.

If we admit that a flattened B is essential in certain cases, we are necessarily struck by the fact that three portions of the scale (each extending over a sixth) are identical.



The three formulae may be extended higher and lower by the repetition of the same notes, avoiding in consequence F in the first group, B natural in the second, and E in the third; the transposition is exact in all three cases.

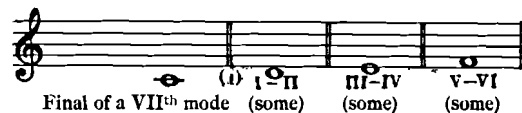
The following final cadence notes may be observed:

In group I:

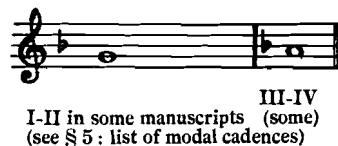


<sup>1</sup> The question is not whether the modes of D and of A are distinct from one another; this in itself is not open to doubt. What we require to know is their function in Gregorian modality.

In group II :



In group III :



The whole question is whether or not a first mode ending on D is equivalent to a first mode ending on A, or a mode ending on F to a mode ending on C, or a fourth mode with its final on E to a fourth mode with its final on A, etc. What follows will give us the answer.

#### § 4. — MODAL EQUIVALENTS.

Different manuscripts do in fact give us *the same pieces or the same formulae* written sometimes in one, sometimes in another of the quoted seats.

1. *Equivalents in whole pieces.* — The hymn *O gloriosa virginum* (second mode) ends in A, or on G (with obligatory B flat) or on D, according to the various manuscripts<sup>2</sup>.

*Glória XV* has finals E, D or A. The *Amen* alone creates a modal difficulty by sounding the interval above the tonic (F, in the Vatican edition). All the rest is either in first or third mode.

The hymn *Crux fidelis* has final D or G (with B flat).

The hymn *Cónditor alme stderum* has final E or A.

The hymn *Ecce jam noctis* has final E or B.

*Sanctus VIII* has final F or C.

*Sanctus XVII* has final F or C.

The *Allelúia* *W. Adducéntur* is to be found with the *Allelúia* in the third mode with final E, and the verse in the first mode

<sup>1</sup> This is the concluding note in the eighth Respond (*Jesum trádedit*) of Good Friday Matins; it is also the concluding note of a number of secondary cadences on lower C, all of which have the characteristics of VII-VIII modes and, as will be shown shortly, even reproduce, exactly a fifth lower, the formulae of cadences on G.

<sup>2</sup> As this treatise is didactic and not documentary, references to manuscripts have not been given. The reader is referred to the pamphlet already mentioned: *Monographies grégoriennes, IX, la modalité grégorienne*, published by Desclée. The first modality indicated in this example is that of the Vatican; the final G is in the mss. of Bodley Land, 95; *Munich Franciscan Breviary*, p. 328, etc. Final D is in the mss. of Plaisance, p. 65; p. 131, Lucca 628, p. 14; Paris, B. N. A. 1235, p. 157, etc.

with final D; or else with the *Allelúia* in the third mode with final A (with B flat) and the verse in the first mode with final A (with B natural).

The *Allelúia* *W. Christus resúrgens* has final D or A.

The *Offertory, Ad te levávi* has final D or A.

The *Allelúia* *W. Lætátus sum* has final D or A.

The *Gradual, Tóllite* is in A or D.

*Glória IV* has final E or A (with B flat): (Rouen 250, A. 233, p. 171).

The *Allelúia* *W. Benedictus es* ends on G (eighth mode) or on F (sixth mode??).

*Glória I* has cadences on B natural and on G; or on E and on C; or on A and on F (with B flat).

*Agnus IV* is in F or C (sixth mode); or in G (eighth mode).

The last two examples present a curious case of imperfect and partial equivalence between an eighth and a sixth mode, with a whole tone below the tonic for the eighth mode, and a semi-tone below the tonic for the sixth mode.

The hymn *Pange lingua* with final E or, in many manuscripts, with final A, has undoubtedly the same origin as the so-called *Italic Tantum Ergo* in the first mode. In the latter, E natural corresponds to F sharp in the mode of E (second degree of the scale). But the origin of the two writings is perhaps the same piece in A, with B either flat or natural.

The hymn *Vox clara ecce intonat (En clara vox)*, with final A in the Vatican edition, is also to be found with final D (earlier Solesmes editions) or in G with B flat.

The introit *Exáudi* is in A (first mode) with B flat at the beginning, or in D (earlier Solesmes editions); the flat at the beginning becomes impossible here because it would be E flat.

2. *Sectional equivalents throughout the whole of a piece.* — The melody is shifted to various intervals.

A few examples will explain the process.

*Allelúia* *W. Omnes gentes* (VIIth. Sunday after Pentecost). If we compare the Vatican with the earlier Solesmes editions, we find no difference at the beginning; but the verse begins on F in the Vatican and on C in the early Solesmes edition; throughout a considerable portion there is complete equivalence. At *Jubiláte Deo*, the melody is shifted, but differently in each case, since the words remain identical; on *in voce* there is divergence again; the end is the same in both editions.

Communion *Bedtus servus*. This Communion, most often written with final A, with the possibility of either a flattened or a natural B, is sometimes written with final E. When this is the case the melody has to be modified after *Dóminus* because of the B natural, which would be F sharp. The remainder of the Communion



ion has no B natural and, in consequence, no F sharp when transposed, and is the same in both writings.

A similar case is that of the beautiful respond *Anno Christum* (one of the Matins responds for the Feast of Saint Agnes), in which the presence of both the B flat and the B natural allows logically for one writing only. In various manuscripts, however, we find the respond starting on another degree of the scale (on D or on A, instead of on G); when the B natural appears, the scribe, finding himself in difficulties, has transposed the melody in order to avoid the forbidden sharp.

The antiphon *Immutémur* of Ash Wednesday, with G as first note, starts in some manuscripts on D; there is a cadence on D at *ciltio*<sup>1</sup>; at *jejunémus* the melody is shifted a fifth higher so that A in the place of E may be sung. In some cases, although the antiphon starts with G, the high D instead of the A is taken on *jejunémus*.

Most of the time this shifting is done to avoid the impossible F sharp or E flat. In the processional antiphon *Cum duceretur* of the Proper of Lyons, the E flat has had to be used; only a little sign, called a guide, indicates that the note F shall be called C; the flat which follows is nevertheless E flat, so far as the ear is concerned.

All this tends to prove that each melodic section has its own individual existence and that, sometimes, in passing from one section to another, any one of the three above quoted and identical scales or groups of notes, in which the intervals are the same, has been used, regardless of the shifting of the melody between the final note of one section and the first note of the following section.

3. *Equivalents in formulae.* — Cases of equivalence between formulae are so numerous that we find it impossible to give a complete list. In the following examples, the modes given do not refer to the piece but to the quoted cadence, which, though not always a final cadence, is nevertheless a modal cadence.

#### A. — Cadences in first and second modes <sup>2</sup>.

1) *On A*: introit *Miseréris* (pœnitentiam) and *on D*, ib. (Deus noster). Offertory *Ad te Dómine* (confundetur), and introit *Cibávit* (final allelúia).

2) *On A*: offertory *Tóllite* (vestras), and *on D*: offertory *Anima* (nostra).

3) *On D*: introits *Sapiéntiam* (sæculum sæculi); *Exsúrge* (repéllas in finem); *Gaudéte* (iterum dico, gaudéte); *Dóminus illuminátió mea* (quem timébo, ceciderunt); and *on A*: introit *Státuit* (sacerdótii dignitas); introit *Factus est* (in latitúdinem); offertory *Inveni* (servum meum) etc., etc.

4) *On D*: introit *Mihi autem* (principátus eórum) and *on A*: introit *Veníte* (adorémus Deum).

<sup>1</sup> In such a version, the impossible F  $\sharp$  (equivalent of B  $\natural$ ) would, of course, be modified. Such slight alterations open the way to even further equivalence.

<sup>2</sup> (Gradual 696.) Pp. 1) 76, 3, 293; 2) 26, 42; 3) [26], 66, 6, 306, [32], 300, [35]; 4) 368, 347; 5) 327, 321.

5) *On A*: gradual *Benedicam* (in ore meo, etc.) and *on D*: gradual *Custódi me* (prótege me, etc.).

6) In Sanctus XIV, *on D*: first *Sanctus*, and *on A*: *Benedictus*.

7) *On G* with obligatory B flat <sup>1</sup>: Gradual *Tenuísti* (Israël Deus); *on D*: Allelúia  $\nabla$ . *Multifárie* (nobis).

Also *on G*: Tracts: *Qui séminant* (incipit); *Ad te levávi* (id.); *Veni sponsa* (id.); and *on D*: tracts: *Tu es vas*, *Gaude* (incipit).

Also *on G*: communion *Erubéscant* (incipit), for Friday in Ember week in Lent; and *on D*: communion *Erubéscant* (id.) for Tuesday in Holy Week.

#### B. — Cadences in third and fourth modes <sup>2</sup>.

1) Compare the following *on E*: introits *Cagnóvi*, *Nos autem*, *In nómine Jesu* (ps. Dómine); offertory *Justitiæ* (final formulæ).

*On B*: offertory, *Eripe me* (tuam, es tu); communion, *Dilexisti* (Deus tuus); offertory, *Emitte* (terræ), etc., etc.

2) *Glória IV* (propter magnam glóriam tuam) *on E*, and *Glória I* *on B* (same words).

3) Compare also *on E*: offertories, *Intónuit* (Dóminus, allelúia), *Tui sunt* (end); introit, *Júdica me* (end); communion, *Benedicimus* (Deum cæli, misericórdiam suam);

And *on B*: offertories, *Miserére* (misericórdiam tuam), *Exáudi* (deprecationem meam), *Benedictus* (supérbis), *Dómine* (misericórdiam tuam, misericórdia tua); communion, *Hoc corpus* (súmitis); respond, *Omnes amíci* (valuérunt, mihi, projecérunt me).

4) *On E*: Allelúia  $\nabla$ . *Amávit* (the jubilus of the Allelúia).

*On A* (with B flat): Allelúia  $\nabla$ . *Omnes gentes* (pláudite).

#### C. — Cadences in fifth and sixth modes.

1) *On F*: offertories, *Justitiæ* (the beginning), *Gloriabúntur* (benedices justo); *on C*: offertory, *In virtúte* (lætábitur justus); introit, *Exáudi* (vultum tuum).

2) *On C*: communion, *Cantáte* (nuntiáte); introit, *Judicant* (illórum); and *on F*: introit, *Gaudeámus* (Angeli), etc.

D. — Cadences in seventh and eighth modes. — Cadences on C, with obligatory B flat, nearly all have their equivalent on G.

1) The gradual, *Tenuísti* (Palm Sunday), except at the first whole bar, has no exact melodic equivalent, but in all its first part it quite gives the impression of a seventh mode on lower C.

2) The offertory, *Gloriabúntur* (gradual 696, p. 509) makes a cadence *on C* at the words *diligunt* and *tua*, which we find *on G* in the offertory, *Impropérium* (p. 172), at the word *misériam* and on this same note in other pieces.

<sup>1</sup> Pp. 167, 48; [24], 112, [52], 401, [94]; 95, 175.

<sup>2</sup> Pp. 1) [69], 183, 178, 115, 174, [71], 270; 3) 229, 35, 140, 289, 107, 118, 154, 122, 144; 4) [40], 313.

3) There are also cadences *on C*: in introïts, *Mihi autem* (p. 368 — *on Tui Deus*) and *Me expectaverunt* (p. [56] — *vidi finem*); and *on G* in: *Venite* (p. 347 — *fecit nos*).

4) In the introït, *Deus in adiutorium* (p. 326) we find the same cadences *on C* with B flat and *on G* markedly in eighth mode style.

5) *On C*: in the offertory, *Confitebor* — *secundum* — (p. 144), and in the communion, *Multitudo* — *immundis* — (p. 397); and *on G*: in the offertory, *In virtute* — *ejus* — (p. [47]), etc., etc.

6) Compare the introïts, *Ne derelinquas* p. 107, from the words in *adiutorium* with *Judica me* (p. 173); both have the same melodic text. There is almost complete equivalence at an interval of a fifth except for the final cadence, which belongs in the first case to a seventh mode *on G* while in the second, instead of concluding on C, the melody rises to E and is in fourth mode. At *meum* we have equivalent cadences *on A* and *on D*, at *Domine* equivalents *on G* and *on C*.

E. — *Mixed cadences in fifth and sixth or seventh and eighth modes; on F or on G and on C* (the note below the final is avoided).

1) The typical fifth mode cadence *on F*, such as we find at the end of the gradual, *Priusquam te formarem* (p. 507), etc., appears *on G* in the final formula of the gradual, *Clamaverunt* (p. [30]).

2) The seventh and eighth modes formula *on C* in the Good Friday Matins respond: *Jesum tradidit* (*tradidit impius*), *on G* in the Holy Week responds: *Eram quasi Agnus* (*viventium*), *Una hora* (*vigilare mecum*), *Plange* (*plebs mea*), *Recessit* (*primum hominem*), and in the communion for the fifth Sunday after Pentecost *Unam petii* etc., etc., is to be found *on F* in the Holy Week responds: *Ecce vidimus* (*decorem*, — *sanati sumus*), *Jerusalem surge* (*jucunditatis* — *salvator Israel*), and in the introïts *Respice in me* for the third Sunday after Pentecost (*Deus meus* — p. 303), *Exaudi Deus* (*exaudi me* — p. 132); etc.

F. — Finally, if we compare the various pauses on G (with obligatory B flat) in Credo I, in the Christmas Invitatory, in the Improperia *Popule meus*, and in first mode psalmody (with final G), etc., with pauses on D, a fifth above the tonic, so frequent in a seventh mode, we cannot fail to receive a general impression of modal similarity. Pauses on G, merely transposed a fifth higher, sound quite like a seventh mode. Compare especially with psalmody final D; final B is clearly related to the Amen of Credo I.

Nor should one overlook the curious equivalence between intonations, frequent in the eighth mode, which give the fourth D-G, and second mode intonations, which give the fourth A-D (or for modes on A, E-A). In the eighth mode, so long as B natural is not introduced, we have modal vagueness. Occasionally, however, the B flat is introduced and then modal confusion becomes nearly

complete (Cf. communion *Comedite*). In such cases the greatest care must be taken in the use of B flat in the accompaniment, otherwise the reappearance of B natural in the melody will sound harsh. We shall have occasion to deal with this case again.

## § 5. — MODAL SCALES.

The above study shows:

1) That entire pieces and modal cadence formulae are to be found:

A	{	On C (with B natural):	V-VI modes (a certain number).
		On B » » » :	III-IV » » »
		On A » » » :	I-II » » »
		On G » » » :	VII-VIII » (almost all).

(First group of modal cadences)

B	{	On F:	V-VI modes (the majority).
		On E:	III-IV » » »
		On D:	I-II » » »
		On C:	VII-VIII » (only one piece, but numerous cadences).

(Second group of modal cadences).

C	{	On B flat :	V-VI modes (possible but very rare cadences).
		On A (with B flat):	III-IV » (whole pieces, also cadences).
		On G (with B flat):	I-II » (pieces in some manuscripts, and modal cadences).
		On F :	VII-VIII » (formulae only).

(Third group of modal cadences).

This last group is incomplete; it does not contain the theoretically impossible E flat. The equivalent of this note is found when the composer, wishing in a sixth mode to use the whole tone below the tonic, transposes his mode on F a fifth higher on to C; the possible B flat takes the place of E flat in the tonality of F; similarly in a mode on D the impossible E flat finds its equivalent B flat, if the melody is transposed a fifth higher, (mode of A). (Cf. the beginning of the antiphon *Ave Regina cælorum*, sixth mode on C; and the communion *Passer invenit*, first mode on A).

Except for third and fourth modes on A, the Vatican edition contains no entire piece in this third group. But, in the first two lines of the verse of the *Alleluia* V. *Omnes gentes* (seventh Sunday after Pentecost), the importance given to the note B flat, the

exclusion of E natural, the pause on F, which gives the impression of a seventh mode, the conclusion on B flat on *plaudite*, all clearly show that these two lines belong to the third group. The E natural which appears at *mánibus* seems to indicate a modulation.

The same may be said of the first part of the gradual *Propter veritatem* (Assumption) from *justitiam* to *mirabiliter* inclusively. The E natural on *dextera* always takes singers by surprise; the cadence before the verse does not entirely destroy this first impression, and the beginning of the verse up to the semi-cadence on B flat confirms it. See also the intonation of the communion *Cantábo* and, in the offertory *In virtute*, the word *Dómine*, etc., etc.

Finally, there are numerous secondary cadences on A, on G, and even on F, (with obligatory B flat) which, as we have already shown, have their equivalent in cadences on E (third and fourth modes), on D (first and second modes), or on G and on C (seventh and eighth modes).

We see, therefore, that although this group is incomplete and although for the most part it is closely allied to the second group, its existence cannot be questioned. There are, therefore, three groups of modal cadences and indeed three modal scales.

2) There is also *complete equivalence* between the three groups in certain pieces as shown by the examples quoted.

In these we find the notes of the following scale used :



The six notes are related in identical fashion in all three groups. Early writers were concerned, not with the absolute, but with the relative pitch of sounds, and, when a melody had to be written down, they may have noted it out, and in fact did so, in any one of the three modal groups.

In spite of secondary or semi-cadences, which do not always necessarily affect the tonic, this scale is homogeneous but it is incomplete. There are many cases of first, second, fourth and sixth modes built up on the notes of the major sixth C-A; this cannot be attributed to chance: the melodic B, flat or natural, seems here to bring in an element which is foreign to the system.

3) a. Pieces which make exclusive use of B natural have their exact equivalent a fourth higher or a fifth lower (with obligatory B flat). Thus, a first mode in D, with constant B natural, may be written in G, with obligatory B flat; a second mode in A with B natural, may be written in D.

b. Pieces, which make exclusive use of B flat, have their exact equivalent a fifth higher. This gives us equivalence between modes in D and modes in A, between modes in F and modes in C, etc. and *vice versa*. See lists already given.

c. Pieces using both B flat and B natural are the only ones between which equivalence is impossible; they were naturally a cause of embarrassment to a scribe who had not started on the right scale.

But in all three cases homogeneity is more apparent than real.

B natural, occurring in modes of D or of F, almost always leads to a cadence on C or on A and thus gives rise to a characteristic modulation (Cf. *Alleluia* ¶. *Dómine Deus meus*, the second *Agnus* of *Agnus XV* etc., etc.). Sometimes the tonic A appears first and the tonic D afterwards (Cf. *Kyrie IV*, the communion *Bedti mundo corde*, *Ave Maris stella*, *Tuba mirum* etc.). In cases where there are no cadences on C or on A (*Sáctus II*, Gradual *Timébunt*), it will be noticed that the B natural appears only now and again, in a way similar to that in which the altered sixth appears in our modern minor, particularly in an ascending scale. Any emphasis of the B natural tends to bring about a change of tonic<sup>1</sup>. (Cf. equivalent cadence formulae on D and on A, on F and on C).

In these same modes of D and F, B flat, even when it occurs frequently, may be looked upon as a passing note; but if emphasized, however slightly, it will produce third and fourth mode cadences on A and first and second mode cadences on G etc., as our examples of equivalents have already shown. This B flat may also be a factor in modulation.

The homogeneous scale of the second group is, therefore, made up of the notes included in the major sixth: C-A without the movable B. It is thus an incomplete scale.

Similarly, the scale of the first group avoids the note F. An eighth mode, which descends below F down to D, borrows a secondary cadence from the first mode. The case of notes in the upper range of a seventh mode is more complicated and will be examined by itself. This homogeneous scale of the first group is, therefore, the incomplete scale of the major sixth G-E.

In all these cases, the kind of modulation of which we are speaking may be, as in modern music, of quite a transitory nature, but any emphasis on notes outside the modal group will always bring it about.

If, however, in the first group, the note F is merely touched upon by the melody coming from notes above the F — a cadence frequent in seventh and eighth modes — and if we do not hear the characteristic intervals of the second group, i. e. the semi-tone E-F or the third D-F etc., we do not really feel that we have penetrated

<sup>1</sup> We do not here refer to the tonic E (third and fourth modes). This case will be examined by itself.

into the domain of the second group. The F may therefore be considered as belonging to the first group, on condition that it is not joined to any lower note and, that nothing, in consequence, is heard which characterizes the second group viz. in first and second modes, the minor third D-F; in third and fourth modes the semi-tone E-F, in fifth and sixth modes the lower semi-tone E-F, or the fourth C-F which characterizes the whole group. The note F in first group is thus merely a supplementary note.

The same remarks apply to the lower B flat in the second group so that the two scales may be figured as follows :



It has already been made clear that in the second group the B flat is more normal than B natural and that, even when used in the medium, it is unlikely to produce a characteristic modulation.

In the third group this supplementary note (which would be E flat) does not exist; but we know that the group is incomplete and that seventh and eighth modes always exceed its limits.

In short, it would be an error to think that the elements which make up our modern scales of C with B natural or of F with B flat — whatever be the note chosen for the modal tonic — constitute a single and homogeneous system in Plainsong. For, as soon as the melody abandons the region peculiar to modal cadences belonging to the first group C B A G, and places F near E or D etc., in such a way as to form the intervals which characterize the same modes in second group, we hear the same formulae, the same modal cadences on F, E, D, C as we had heard before on C, B, A, G. There are, therefore two analogous parallel systems of modal cadences obtained, as it were, by a simple play of transposition, as appears from the lists we have given. The opposite phenomenon is produced when the melody leaves the second group and adopts the melodic formulae and cadences of the first group by using B natural. The mutual independence of these two modal systems is confirmed, moreover, by the fairly large number of pieces to be found written in one group; this has given rise to equivalences on a large scale in various manuscripts. At any rate these two modal systems have each their own scale and their own cadences, although the scale is incomplete.

The second and third group (with obligatory B flat) are differentiated by the same characteristics and for the same reasons as the first and the second, although the third group is very incomplete.

Modulations are often of a very fleeting character, but they exist; they do not affect the musical unity of the composition, although in analysing it, they must be taken into account.

4) Equivalence between entire pieces and modal cadences in the three tonalities is ample proof of the existence and independence of these three modal groups.

In pieces which utilize two of these groups or the three groups, the difference between the three scales brought out by the secondary cadences peculiar to each, and the very equivalence of the cadences within each of the three groups are no less proof of the independence of the groups, and this in spite of their natural affinity which allows for unity of composition.

But, apart from such cases, where independence is obvious, it would not do for one homogeneous *melodic formula* — and by this we mean not a section between any two bars, but a melodic group or musical word, complete as such, though not necessarily detached from the whole when sung — it would not do, we say, for a homogeneous melodic formula to belong to both scales, for then the independence of these scales would be impaired. If, on the contrary, the melodic formulae are comprised within the limits of one of the three incomplete scales, our thesis will have found substantial confirmation. Thus, in our classical music, a melodic formula is written in a single key and makes use of passing modulations only.

If F is excluded from the first group, B (flat or natural) from the second group and E from the third, it follows that, in the accompaniment, F and B natural, E and B flat should not both be used in the same formula.

As a matter of fact this hypothesis is confirmed in the majority of cases.

Only the notes F and B, or the famous tritone, are frequently found near one another, especially in seventh and eighth modes, not directly as an augmented fourth but barely dissimulated by one or two intermediate notes. But, as we have already said, used in such a manner, i. e. without the lower notes being sounded, the F does not take us out of the first group, of which it is a supplementary note. This case must therefore be considered by itself.

Our attention should be given rather to the diminished fifth (B-F or E-B flat) the appearance of which, in point of fact, is so rare as to be an exception which proves the rule.

These exceptions seem to obey the following law: the melodic section belongs distinctly to one group, and one of the notes of the diminished fifth forms an integral part of it; the other is merely touched upon and furtively borrowed from a neighbouring group (compare with what harmony text books describe as passing modulations).

Sometimes it is F that is borrowed from the second group: or



conversely, B may be taken from the first group, as in the antiphon *Exaudi nos* of Ash Wednesday, which begins quite clearly in the second group and may be said to be a kind of second mode on treble D.

The brevity of the B natural on *misericórdia*, as opposed to the length of the repeated treble F and the frequency of D, shows that this B natural has only been furtively borrowed from the first group; the B with its usual modal value appears much later, on *tuárum*, far from the F, which disappears entirely from the melody. We cannot understand anyone stating that this piece is constructed on the dominant seventh or that it in any way suggests this chord. The whole question of seventh modes will be examined in detail further on.

In the above quoted gradual of the Assumption, the E natural on *déxtera* is merely a passing acquisition from the second group, since the passage as a whole belongs clearly to the third group. We find a similar case in the Allelúia of the Ascension :



One fact stands out clearly : that, in Gregorian Chant, the diminished fifth never exercises an attractive force. This is the opposite of what happens in classical music where, in a homogeneous scale, these two notes create an attraction of the leading note towards the tonic. There is nothing of this kind in Gregorian Chant, (not even in the fifth and sixth modes).

Once again, the independence of the three groups seems to us an established fact. The rare interpenetration of one group into another in the same melodic formula does not destroy their independence, any more than passing modulations destroy the independence of the twenty four keys of modern music.

This is why we hold that a Gregorian mode is characterized, not by a complete and homogeneous scale, but by certain intervals placed below and above its tonic, and that in its development, a composition either keeps within the limits of the incomplete scale or modulates more or less completely into the neighbouring scale.

We have given the characteristic intervals for each of the eight modes grouped two by two. These intervals may be found in any one of the three groups (excepting the seventh and eighth modes in the third group). For example, in first and second modes we find an identical third : A-C in first group, D-F in

<sup>1</sup> The compass of the third and fourth modes with proximity of F and B will be studied later.



second group and G-B flat in third group, and each third with a semi-tone between its second and third notes <sup>1</sup>.

If we look for the interval which shows most clearly in which group we are, we shall find it to be the *semi-tone* : B-C for the first group, E-F for the second group, A-B flat for the third group. A minor third D-F, E-G, A-C etc., though it often characterizes a group, is reliable as an indication only when it *clearly suggests the place of the semi-tone*; this may be between either the first and second note, as, for example, between A and B flat in the third A-C, or between the second and third note, as, for example, between B natural and C in the same third.

Later we shall explain the great practical importance of this last remark.

To sum up we may say that Gregorian Chant is written on three incomplete scales. These scales may all be used in the course of one piece but they are :

1. *Independent*. In most cases this is proved by : a) the considerable number of pieces written in one modal group; b) by the manner in which the melody itself keeps the groups separate, since each melodic formula belongs most often to only one group; cases of synthesis are rare and always involve the preeminence of one group; c) the fact that the melody leaving its principal group, establishes secondary cadences in a neighbouring group, which momentarily effaces the impression of the original tonality.

2. *Equivalent*, as is shown by our list of examples, which might be far more complete.

<sup>1</sup> It is this very equivalence between characteristic modal intervals and, in consequence, between modal cadences which is extremely interesting. There can be no equivalence between pieces of any importance which use both B flat and B natural, just because they belong *by modulation* to all three groups. It follows that if there is equivalence between the melodic formulae of a first mode in D and those of a first mode on A, this equivalence will be found between whole pieces in D and whole pieces in A only in so far as they keep to the characteristic intervals of the mode. For it is the varying positions of the *mobile* note B, flat or natural, which creates modulations peculiar to each case and which may and, in fact, does give to each piece a certain character. As a result we find the following curious consequences : a fourth mode in A, (with B flat), becomes a first mode through B natural, without a change of tonic and *vice versa*. An eighth mode in G may begin (with B flat) as a second mode on G (communion *Comédite*, respond *Anno Christum*) and become an eighth mode only when the B natural is introduced. And what of eighth modes with B flat in the cadence? An error, no doubt. Should we then read an augmented fourth F-B on the cadence of the second allelúia of Ember Saturday in Whitsun week? Again, the respond *Jesum tradidit*, a VII-VIII mode on C, begins as a sixth mode because of the B natural and owes its denomination only to the B flat which is introduced before the cadence. Conversely, a number of sixth modes in C begin as eighth modes with B flat. From this we see the fundamental importance of B flat, in spite of its having been represented as exceptional; we see also that the modal denomination given to a piece is based chiefly on its final cadence. If, through the « guide » we bring about an E flat in the melody, *read* as B flat, or an F sharp, *read* as B natural, we shall have established the whole principle of « circular » modulations.

Once the characteristic intervals of each group have been recognized, analysis must proceed step by step. But even now, we set down as a principle that each scale or group has its own essential harmonies and that there must be equivalence (by simple transposition) between the three harmonic groups thus formed, just as there is equivalence between the three Gregorian scales or groups, and in the same proportion. This principle will be the fundamental law of our accompaniment.

#### § 6. — PRACTICAL RULES FOR MODAL ANALYSIS.

In practice, the presence of B natural will, therefore, be necessary to characterize group I. Sometimes, however, the fourth G-C and the minor third A-C will be sufficiently clearly implied to indicate this same group.

Group II will be characterized by the semi-tone E-F and also by the minor third D-F and by the fourth C-F, because these last two intervals clearly suggest the characteristic semi-tone E-F.

Group III will be characterized by the semi-tone A-B flat and also by the third G-B flat and by the fourth F-B flat, because these last two intervals clearly suggest the characteristic semi-tone A-B flat.

In consequence, the following transitions can be made :

1. *From group I*

*To group II :* a) by the note F joined to a lower note but especially by the semi-tone E-F; b) by the note B flat reached from notes above it and only touched upon without going to a lower note, which would lead us into group III.

*To group III :* by the note B flat joined to a lower note, particularly by the semi-tone A-B flat.

2. *From group II*

*To group I :* by B natural,

*To group III :* by B flat joined to a lower note.

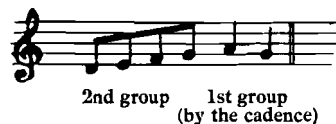
3. *From group III*

*To group I :* by B natural.

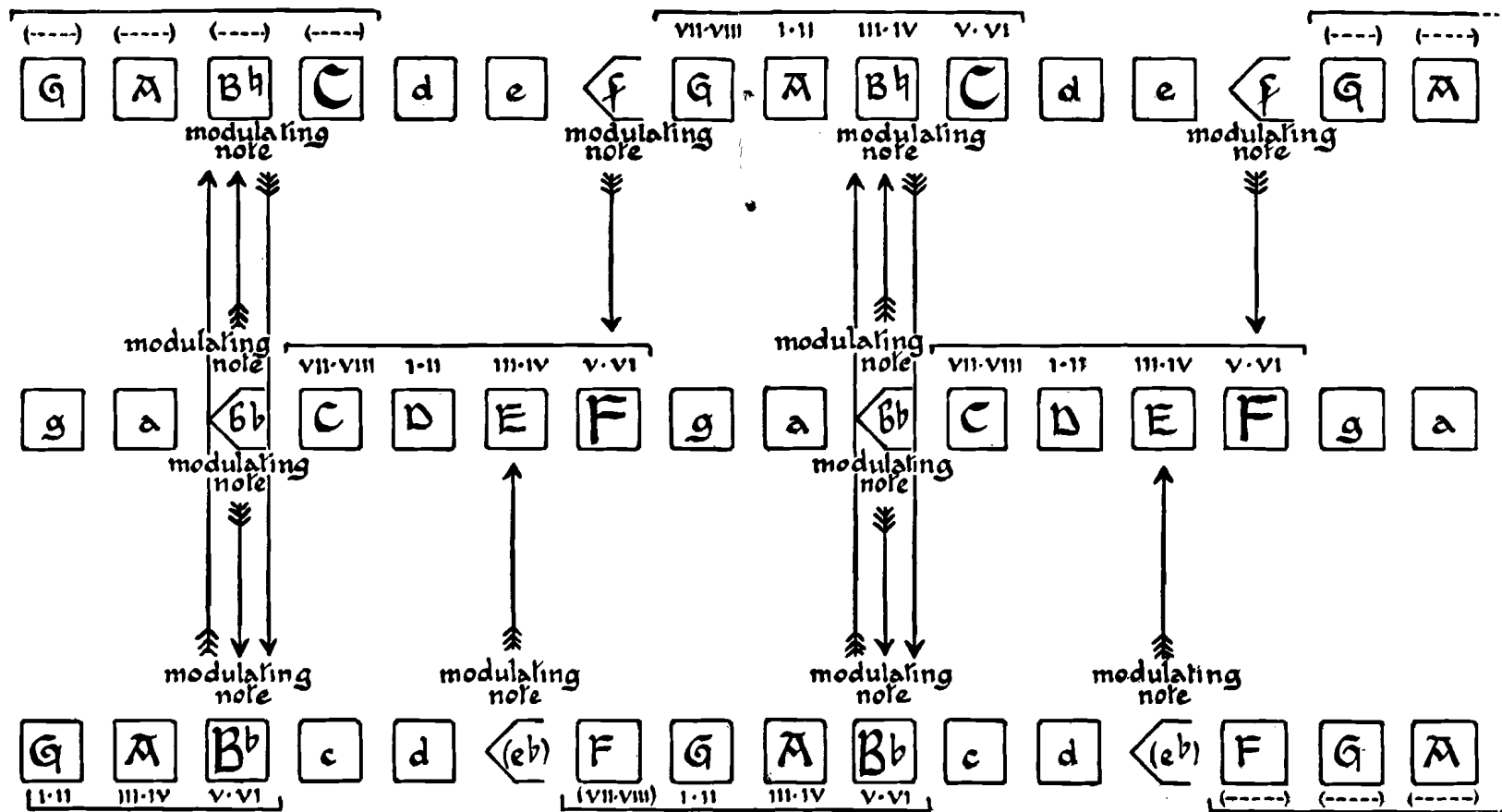
*To group II :* by E natural.

A descent from F to C, a fourth below, is sufficient evidence of a second group even in the absence of E natural (cf. the communion *Videns Dominus*).

A cadence belonging to a particular group establishes the group even when the characteristic intervals have not been heard, as, for instance, in an eighth mode :



# A TABLE OF THE THREE PLAINSONG TONALITIES



A. — Each horizontal line gives the possible range of one of the three Gregorian groups.

B. — In each of these groups, the following will be easily recognized :

1. The note which serves as a starting point in each of the three groups (large capitals).
2. The three other notes on which *modal cadences* may occur (small capitals); these four notes together make up *the tetrachord of modal cadences*.
3. Purely *melodic* notes (small type).
4. The “*modulating*” note which, unless it is avoided, will lead in to another group. The special framework, which surrounds this note, serves to remind the student that it may be sounded without bringing about a change of group when it is only touched upon and approached from the tetrachord above it.

C. — The vertical arrows show the possible “*modulations*”. It should, however, be remembered that a *cadence* can sometimes of itself establish the melody in a new group.

D. — Until the melody sounds a “*modulating*” note, it should be strictly considered as belonging to one and the same group.





## CHAPTER II

### Modal rules for the accompanist.

We will suppose that an organist has become quite familiar with rhythmical analysis and has already written numerous accompaniments for specially chosen pieces<sup>1</sup>. Once he has made the modal analysis of a piece, strictly in accordance with the rules we have given, there can only remain for him a few difficulties of detail.

#### § I. — ELEMENTARY RULES FOR EACH GROUP.

*Group I.* — A) As B natural is the characteristic note of this group, only the following chords in root position or as first inversions should be used: C major, D minor, E minor, F major, G major, A minor; and only the first inversion of the chord of the diminished fifth on B; the same applies to the corresponding chords of the seventh (see Part I).

In using the chord of the diminished fifth, what has been said in Part I should be strictly adhered to. The same applies to the chord of the dominant seventh.

B) In the incomplete scale of this group, the F is merely a supplementary note; consequently, if the chords of D minor and of F major are made use of, the following results should be carefully noted:

1. First of all, under no circumstances should these chords be used as chords of repose in root position, with the bass doubling the melody, and especially not in the case of sustained notes in the melody (unless modal cadences on D or on F occur, in which case the cadence brings about a change of group). These chords should therefore only be used as chords of movement.

2. Moreover the root chord of F, even when not in a position of repose (bass doubling melody), should be used with the greatest circumspection. It must *quite definitely* be a chord of movement:



<sup>1</sup> It will now be clear to the reader why, in Parts I and II, only a certain category of pieces was indicated, i. e. for instance, a mode of D without the note B. These pieces were chosen because they were written *in one group only*.

especially in seventh and eighth mode cadences:



In some cases, a melodic B natural passing over this chord may sound harsh.

It should be noticed, on the other hand, that if the melody makes a passing modulation into group II, the above chords may be used to very good advantage; we refer here to group I only.

C) In Part II we said that a chord of absolute repose was suitable only for a final cadence. This applies particularly to the chord of C major in root position, which, if used to harmonize a melodic C, *especially if the latter is sustained*, would tend to stop all movement. Anything but a final cadence on C should, therefore, be harmonized with the first inversion of the chord of C or with the chord of A minor.

Moreover, we should be constantly on our guard against suggesting a modern major key in any way, that is to say, against giving to B natural the character of a leading note. As we have already said, the B is attracted towards the C owing to the proximity of F and B, expressed or implied by the tonality; in consequence, when the chords of G major and of C major, in root position or as first inversions, are used in succession, the chords of F major or of D minor should never immediately precede the chord of G major:



All the above are harmonic successions belonging clearly to our modern C major.

If, on the contrary, the chord of G marks a pause and is not followed by the chord of C major (as in seventh and eighth mode cadences), the B has a quality of stability and resists the attraction of the C. The succession of these chords is, we feel, deliberate and strong.

In connection with this, we would remind the reader of what was said in Part I regarding the harmonic intervals of the diminished fifth and the augmented fourth.

*Group II.* — A) This group is characterized by the absence of B natural and by the presence of B flat as a supplementary note. Only the following chords may be used as root chords or first inversions, with or without an added seventh: C major, D minor, the first inversion of the chord of the diminished fifth on E, F major, G minor, A minor, B flat major.

The exclusion of B natural from the harmony has been objected to on the ground that there are pieces in this group with constant B natural.

The question of third and fourth modes will be examined separately.

As to the modes of D and F with constant B natural, we can but repeat what we said in the last chapter: this B natural is only a note of transition; any insistence on it determines a change of tonic to A or to C and constitutes a modulation into group I.

Moreover such cases are rare and do not prevent others, which are far more frequent, where the note B, melodically connected with D or F, is flattened.

In certain cases, which will be described further on, we will allow a passing B natural in the harmonizing of this group.

In pieces written for the most part in group I, with a passing modulation into group II by means of F and one of the lower notes, the presence of B natural in the harmony after the melodic F has been heard, would create a tonal synthesis comparable to that of our modern C major:



In this example, the proximity of F in the melody to B in the harmony (first inversion of triad on G) gives to B the character of a modern leading note.

Moreover, we find this same melodic fourth, with obvious analogy in the context, a fifth higher in group I (cf. *Induit me* in the introit *Gaudens*), and a fourth higher with B flat in group III (cf. *in Domino* in the introit *Gaudeamus*). B natural in group II and E in group III correspond to F sharp in group I. *Melodic equivalence* requires *harmonic equivalence* and we therefore adopt the following writing:



Finally, since in our essential harmonies we should try above all to give a synthesis of the melodic outline and, since B natural has not yet appeared in the melody, we feel justified in saying that everything tends to support our theory — the documents (equivalents), the Gregorian æsthetic (absence of leading note), and the melodic context.

B) The restrictions concerning the use of the chords of F major and D minor in group I, apply equally to the root chord of B flat major and to that of G minor in group II.

When a passing modulation into group III occurs, these chords are, however, excellent and may be used without restriction.

C) For F in the melody, especially when this note is sustained, the major triad on F, in root position, should be used on final cadences only. In all other cases, its first inversion or the chord of D minor should, therefore, be substituted:



Again, if the chord of C be followed by the chord of F, (either or both chords in root or inverted position), it must not be preceded by that of B flat or by that of G minor; the proximity of B flat and E would give to the latter the character of a modern leading note.

(Cf. examples quoted for group I and transpose them a fifth lower).

The case of a stable E is of course quite different.

D) Finally, the chord of A minor, used as a chord of repose in root position, suggests that A is the tonic and implies B natural and in consequence a modulation into group I. If this B natural is heard in the melody, all is well and we pass into group I; sometimes, even its implied presence may be felt. But in all other cases a chord of movement is required.

Pauses on this note A, near a B flat (group III), recall third and fourth modes. For reasons given later, the chord of A minor is also unsuitable for such cadences.

Thus in group II, the chord of A minor in root position should never be used to accompany A in the melody, especially when this note is sustained. The same remark applies in group I to the chord of E minor in root position for harmonizing E in the melody, especially when the latter is sustained.

*Group III.* — A) Group III is characterized by the absence of E natural; it follows that in this group the chords of C major

In example 2. we have : a) a passing note in the bass, b) a passing chord of the sixth.

In example 3. we have a major chord of the seventh.

In the three cases, the B natural is only possible because of the preceding context; taken alone, these passages would exclude a B natural. Compare the cadences of *Agnus XVI* with those of *Agnus II*. In the latter, B natural is impossible.

These examples seem to set the limits to what can be done along this line of thought. One must be fairly skilled in writing to take such liberties. The procedure is dangerous and should be resorted to only as an exception and with full knowledge of the subject.

### § 3. — MIXED THIRD AND SECOND GROUPS.

As already stated and except in a few rare cases, the third group is, in point of fact, intimately connected with the second group.

Nevertheless, as long as E has not been heard in the melody, this note should not figure in group III as an integral part of any harmony used. It may, however, be introduced under the same conditions as B natural in group II, either as a note foreign to the harmony, or as a passing chord of the sixth, or as a major seventh.

This discreet reminder of the principal tonality is very effective and is suggested by the Gregorian melody itself, which, as we have already pointed out, borrows in the same fleeting way from a neighbouring group.

\* Introit *Da pacem*. Ib. *Alleluia of the Ascension*. Ib. *Kyrie*.

These examples show that G minor is the dominating harmonic colour in group III.

Apart from these cases, the elementary rules should be strictly adhered to. In studying sixth modes, many of which make constant use of a flattened B, we shall see in what manner a final cadence should be treated when there is no E in the melody. We must bear in mind the fairly numerous cases of equivalence between cadences on F and cadences on G; in many such cases E would sound like a true leading note and almost like F sharp in an eighth mode.

It will now be clear that B flat in the harmony of a second group (chord of G minor) is often impossible, because of the context, when coming from group I; whereas, in coming from group III, it may be used freely.

When group II, with or without incursions into group I, clearly predominates, B flat may be used, but with circumspection, and the restrictions concerning its use should be remembered, especially with regard to the use of the triad on B flat, in root position.

According to the melodic context, G in the melody will require sometimes the harmonic colour of G minor — the melodic E being treated as a foreign note with or without connection with group III — sometimes that of C major. The importance given to the note and the general character of the melody will also have to be considered. When the G minor colour is to dominate, the melodic F may even be harmonized with the chord of the seventh G-B $\flat$ -D-F.

<sup>1</sup> Indeed, in many cases, and without the note E appearing in the immediate melodic context, the ear does not hear an implied E flat — except in *very* rare cases — and is ready to accept a *passing* E natural in the harmony. Sometimes, when the third A-C (with B flat) is emphasized in the melody, especially when it is heard in conjunction with the note F, one gets a fairly definite impression that the pause on A presupposes F as the tonic, not of a seventh mode (which would imply the presence of E flat), but as the tonic of a sixth mode with E natural.

Transposed a fourth lower into group II, equivalent melodic formulae might be harmonized with a passing B natural without this note having been heard in the melody (perhaps *Sanctus* and *Agnus X*), whereas, generally speaking, in the absence of the melodic B (flat or natural), it is more normal to use B flat in the harmony (*Introit Resurrexi*).

In order to be quite logical, we would have to concede that the same melodic formulae, transposed into group I, (the third B-D in conjunction with G) admitted of a passing F sharp (by transposition). It is certainly a fact that in such a case (*Kyrie XVI* for example) F natural has an unpleasant ring; but this interesting question of equivalence between melodic formulae, with pauses on B natural, and those with pauses on E, or on A, (with obligatory B flat) calls for a more detailed study than is possible here.

We beware of rash generalizations and adhere to the rules already given should, moreover. In doubtful cases, however, B, whether flat or natural, should be avoided in group II harmonies, as should also F in first group harmonies when these notes are neither present in the melody nor suggested (either directly or by comparison with similar passages).

Finally, it should not be forgotten that any note foreign to the group in which the melody moves should only be used as a passing note or in a passing harmony.

#### § 4. — TRANSITION FROM GROUP III TO GROUP I.

The melody rarely passes from the third to the first group without sounding an E (group II) which does away with the impression of B flat before B natural is heard; for example, in the introit: *Stáuit. At fecit eum* we are in group III, the B natural appears on *sacerdóti*. In such a case the two chords common to the third and first groups, F major and D minor, should be emphasized; the E may then be discreetly brought into the harmony before B natural appears in the melody:



A curious case is that of an eighth mode cadence where the flat has been neither annulled by a B natural nor toned down by an E. There is every reason to believe that the flat is due to an error. The general character of eighth mode cadences certainly requires that the final chord shall be G major. It is best in this case to treat the B flat as a note foreign to the harmony and to introduce E in the harmony, as in the following example:



(B is here treated as a changing note).

Before setting to work, the accompanist must, therefore, examine not only the immediate context, but the general atmosphere of a piece as well as normal cases of eighth mode cadences.

Generally speaking, before choosing any harmonies, he should have analysed and interpreted the melody, have made it his own, so that his task becomes merely one of translation.

There exists, then, an *art of harmonic transitions* in the accompaniment of the Chant. In many cases, it is the chords common to two groups to which preference should be given, so that a modulation in the melody should not be forestalled in the harmony nor the impression of the tonality which preceded the modulation unduly prolonged.

#### § 5. — THE FINAL CHORD IN THE THIRD AND FOURTH MODES.

The final E in the third and fourth modes, belongs to the second group of modal cadences. We have already pointed out that for

other finals in this group, B natural in the harmony is unsuitable. Does the same apply to final E? The general economy of our system would seem to suggest that it does, but this is hardly a sufficient reason.

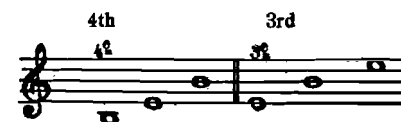
Moreover, the proximity of an F in the melody to B natural in the chord of E minor need not in any way be musically unpleasant. For, as in this chord of repose B natural is stable, it has nothing which suggests the character of a leading note. And yet, the chord of E minor is not, in our opinion, suitable for a final chord of the third and fourth modes.

It has been objected, in favour of this chord, that it was used by the first contrapuntists to harmonize final E in these modes. But this proves nothing, for the theory has always been that E was really the tonal and conclusive note; the whole point is to know whether Plainsong has actually been subject to this theory, whether the final note in these modes really gives a complete sense of repose. Besides, this chord of E minor, used by the first contrapuntists, rapidly became major with G sharp, a chord which nobody, nowadays, would admit in Plainsong accompaniment. Certainly, a true mode of E constructed on the plagal scale B-E-B or on the scale E-B-E may be very beautiful; admirable use has, in fact, been made of it by modern composers; but, we would ask, is the Plainsong mode which we are studying a true mode of E?

It has also been objected that a final note is conclusive and that discussion of its characteristics is therefore superfluous. We have here an *a priori* theory which is contradicted by the fact that there exists a mode of B natural, constructed, not <sup>1</sup>, as has been sometimes stated, on a scale characterized by the melodic diminished fifth, but on a seventh mode scale in G, concluding on B, a third above its real and implied tonic.

Nor would the very exclusiveness of the melodic B natural — which, as we shall see, is far from absolute — signify anything, if there are true tonics other than E.

The solution is to be found in the study of the melodies themselves. The chord of E minor is compulsory, if, in the cadence formulae and in the general structure of the mode, we find E in conjunction with B, just as we find D with A in first and second modes, F with C in fifth and sixth modes, G with D in seventh and eighth modes. The resting points of the scale would then be:



<sup>1</sup> At least not in Plainsong.

1. Now it is fairly obvious that the plagal scale of the fourth mode is not from B to B, for we do not come across a single case of a lower B natural. The melody rests constantly on lower C or on D, and most often on middle A. Nearly all fourth modes borrow the characteristic intervals of the first or sixth modes.

As to the third mode, it moves entirely in the area of the eighth mode. The dominant B has been raised to C and is generally only a passing note; although in some pieces there are traces of the original dominant, middle G, and the C and D above it are the most prominent from a rhythmic point of view.

It is clear, therefore, that these modes are not constructed on E as others are constructed on D, F, or G. The harmony and especially the final harmony, which must synthesize the most characteristic elements of the melody, should not, then, contain both E and B.

2. If we turn to the Gradual (Vatican edition) and examine *fourth modes*, we find a great number, half at least, without a single B natural; although certain upper Cs were, without doubt, originally Bs, nevertheless, the piece as a whole covered ground peculiar to the first and the sixth modes. Many of these modes have a constant B flat, some of the flats may be errors but this does not prevent the real tonic being that of first modes (D) or of sixth modes (F) or of seventh modes (on lower C). Some, like Credo I, according to such an authority as Mr. M. Emmanuel, are transpositions of the mode of B or, at any rate, display all its characteristics. Especially is this true of those modes in which the melody remains in the lower part of the scale and does not rise above middle A (Cf. *Sanctus* and *Agnus X*).

Pieces which make use of B natural modulate to the tonics A or C, or, as in some first and fifth modes already mentioned, simply pass over the B natural; quite often the flat reappears before bringing about the return of the principal tonic. The minor third D-F or the fifth D-A (first mode) and the fourth C-F (sixth mode) are the characteristic intervals of the fourth mode: see introit *Resurrexi*, *Gloria IV*, etc., etc. Even in cases where B natural occurs frequently, or constantly, cadences on D or on F, and the intervals already mentioned, efface any impression of a B natural before the concluding note is sounded. Nothing, then, can justify the use of the chord of E minor; true, this chord would be most conclusive, it would indeed be too much so, for the melody, resting as it does on D and on F as tonic notes, seems to pause rather than to conclude. Such is, according to the best Gregorian-scholars, the proper and peculiarly meditative character of this mode.

3. In the *third mode*, B is almost constantly natural and we find secondary cadences on A (first mode), on B (fourth mode), on G (eighth mode); the reciting note (or dominant), which was originally B, is now, as in an eighth mode, C. In this scale, the B is most often merely a passing note. If we eliminate embel-

ishments, most intonations make use of E, G or C (*Pange lingua*, *In nomine Jesu*, etc., etc.).

The C, therefore, and not the B should figure in the final harmony.

It would seem also that before the final cadence the melody, by the importance it gives to the fifth D-A and to the third F-A, by its secondary cadences on D or on F, and even by the occasional introduction of B flat (Gradual: *Tu es Deus*), seeks to efface the impression made by the B natural. We hardly ever find B natural directly associated with E; in a cadence formula the B is rarely introduced, and has the character of a passing note.

To synthesize the melody by harmonizing it with B and with E is to go counter to the melodic analysis which requires the harmonic synthesis of E, G and C, or of E and A (chords of C and of A minor).

We admit that in certain cases the chord of E minor is possible just because the cadence formula includes both E and B natural<sup>1</sup>; it is, however, never obligatory; and, since in teaching we should aim at the general rule and not at the exception, the student will do best to reject the chord of E minor, which, though legitimate at times, is never absolutely necessary.

4. Cases of equivalence are those which give strongest support to our point of view. Of formulae on E, the most important have their equivalent on B. Reference should be made to the list given above. The chord of B minor in the mode of B is impossible, because of F sharp. How could two essentially different harmonies be used for two identical formulae? Are not the cadences of *Kyrie II* and *Alleluia*: *¶ Cognoverunt* similar in character to the cadences on B at *in excelsis* of *Sanctus I* or of the last *Kyrie* in masses XV and XVIII?

According to the context either the chord of A minor or the chord of C major should therefore be used. Except when the chord of C is clearly required, the chord of A minor should be preferred, as its fifth, the melodic E, is harmonically more directly related to its bass A than the third E is to its bass C in the chord of C major.

We see, then, that a final cadence in third and fourth modes does not constitute an exception to the law of the second group.

From what has been said it is clear that a third or fourth mode on A with B flat could not, for the same reasons, be harmonized with the chord of A minor.

<sup>1</sup> Certain formulae such as: *Tu Rex gloriae Christe* in the *Te Deum*, in which F is avoided, are only subsidiary resting points in first group and may well be harmonized with the first inversion of E minor a chord of movement. The case of well defined cadences is quite different.

# CHAPTER III

## Characteristics peculiar to each mode.

### § I. — FIRST AND SECOND MODES.

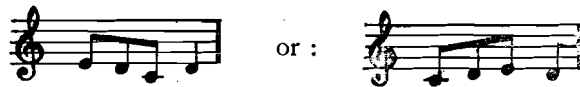
A. *Final cadences.* — a) The best succession of chords for these is the chord of C major followed by that of D minor:



And with embellishments †:



b) The chord of A minor, in root position, followed by that of D minor gives an impression of heaviness because of the movement in the bass. Nevertheless, for the formula:



this succession of chords should be used in preference to that given under a), which would have to be written:

† In the last of these examples both the E and the F in the melody should be considered foreign to the harmony and only the preceding D an integral part of it; thus, the suspension in the tenor is correct. Cf. further on the harmonic formula given for seventh mode psalmody.



The bass has to exchange notes with the melody so that consecutive octaves between the extreme parts may be avoided. The process is, no doubt, perfectly correct but rather trite, and, instead of the chord of C major, the chord of A minor should be used even, when possible, with its seventh. Ex.:



c) G in the bass followed by D may serve the same purpose; the G carries a minor triad or a chord of the sixth (first inversion of the diminished fifth on E); but this latter chord is only possible when the general context allows for a B flat in the harmony. We have thus a succession of chords, which constitute what is called a *plagal cadence* of which the skeleton is:



This gives us:



This ascending leap in the bass by a melodic fifth is inclined to be heavy and it is generally better for the bass to double the tenor :



Here are three more formulae in which the last chord but one is a chord of the sixth or a chord of the fifth and sixth. The first of the three is very valuable in cases where the G minor shade should be brought out.



There is no trace here of the heaviness which we pointed out in previous examples and which was due to the bass in root position moving by a fifth or a fourth.

d) On a bass *that has already served as a pedal bass*<sup>1</sup> we get other plagal cadences of which the harmonic skeleton is as follows :



from which we get :



These examples show the way to overcome all practical difficulties.

They should be transposed a fifth higher (to A) for final A. The formulae mentioned under a) and b) should also be transposed a fourth higher for secondary cadences on G with B flat.

<sup>1</sup> Otherwise these formulae would appear to be feminine cadences.

B. *First mode* pieces are nearly always written on D. The simplest case is that written in a single group and containing neither B natural nor B flat; it is by no means rare. When a B natural or a B flat appears, the modal rules already given should suffice. The same applies to the rare pieces with constant B natural.

With B flat, a pedal bass on the tonic is sometimes very effective.

Generally speaking, pieces in the first mode begin in group II. A few (*Kyrie IV*, *Ave maris stella*) begin in group I and end in group II. The B natural, which appears at the beginning, at once informs the accompanist of the group in which the melody is moving.

As exceptions, we find first mode pieces written in A (*Passer*). Here, the B flat takes the place of what would be E flat were the piece written with its normal final D. If, then, it is read a fifth below the original seat, it must not be forgotten that E flat in relation to A calls for the same careful handling as does B flat in relation to E (see below § 2. on transposition).

C. *Second mode* pieces are most often written on D and quite often entirely in group II. When B, whether flat or natural, appears, the usual modal rules should be carefully observed.

The appearance of B natural in the lower register in no way affects our principle. It often happens, moreover, that first and second modes overlap and form a kind of mixed mode.

If written in A, these second mode pieces frequently have a B flat above the tonic, which takes the melody into group III (gradual : *Réquiem*), the rules already given should be applied.

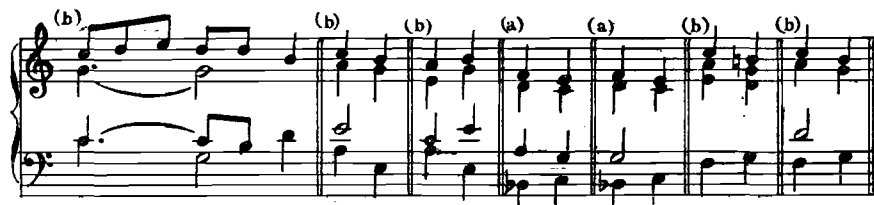
## § 2. — THIRD AND FOURTH MODES.

A) *Final cadences*. — 1. As has already been said, the chord of A minor or that of C major should be used as final chord in these cadences. The best cadence here is the plagal cadence, i. e. the harmonic succession D minor, A minor; or F major, C major. We have thus :



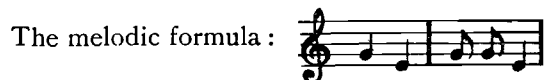


The formula marked (1), with a B natural foreign to the harmony, is only suitable if, in the melody, B has been constantly natural.



a) This is a mode of B transposed a fifth lower (such formulae require to be used with circumspection).

b) Final B.



has been given C major for its final chord. It should, however, be noticed that if the bass coincides with the melodic G, harmonically the cadence is a feminine cadence. Such also is the character of the first example of the second line, given in the last quotation. Before using it, the accompanist should, therefore, make sure that this treatment is suitable for the melodic cadence under consideration.

In some cases (the context will show when), the chord of A minor is to be preferred. The following is rightly harmonized with the fifth omitted in the chord of the seventh.



The harmony of D minor might also be maintained with D in the bass for G in the melody. The G thus becomes an anticipatory note or rather a kind of appoggiatura with implied resolution on F.

When C major follows on F major, the harmony of F could also be maintained on the melodic G, but with some slight additional movement on the G, such as a change from root position to first inversion; the chord of C need not appear before the last note and, where necessary, a feminine harmonic cadence is thus avoided. The whole formula might equally well be built up on a previously sounded pedal bass.

B) *Third mode* pieces have this peculiarity that they move in the area of an eighth mode. We find high C and sometimes D given the same importance, while B, vestige of the original dominant, is also slightly more emphasized. Secondary cadences occur on G, on A, and on B. Descending frequently to lower D (Kyrie II), the melody passes into group II, making secondary cadences of a first mode type; these require D minor, but, because they are not absolute cadences, the first inversion of this chord is generally the most suitable.

As has already been said, the final cadence brings back the second modal group and, for reasons already given, the chord of E minor should not be used. The application of these modal rules during the course of a piece presents no difficulty. The fourth D-G, which occurs frequently in intonation formulae, cannot (on account of the proximity of F) be given the harmony of G major, in which the B would take on the character of a leading note, and the whole passage that of the modern key of C major.

We could then have, for example :



In (a) we have the harmonic scheme:





In (b), the melodic G is an unresolved ninth; the note of resolution (F) is merely implied; the G, by indirect anticipation, belongs in reality to the following harmony.

C) *The fourth mode*, in spite of certain features peculiar to it, covers the same ground as first and sixth modes, and has D or F as true tonic notes.

Frequently, pieces in this mode do not rise above the note A (introduction, *Resurrexi*). With certain restrictions, to which attention has already been drawn, B flat may be considered obligatory. The context will show whether the harmonic colour of C major or that of G minor should be chosen.

In pieces which rise to C without touching B (*Gloria IV*), we are led to believe, from certain manuscripts, that the C replaces an earlier B, which must have been natural, since it glided up towards C. This leaves our general principles unchanged. A purist would, of course, avoid B (flat or natural) in the harmony, although, in practice, we have to take the melody as we find it.

In other pieces we find first a B flat then a B natural etc.; in such cases, the elementary modal group rules should be applied. A constant B natural will make A the predominating tonic note, but a cadence on E takes us inevitably into second group; the case is, however, a rare one, and may be said to form a kind of mixed third and fourth mode.

The *fourth mode*, in B, has characteristics of its own. Most often, it borrows seventh mode formulae (in G) and concludes a third above its true tonic note. As a general rule, then, it is best to conclude on G major (see cadence formulae).

Some modes, ending on E, with obligatory B flat, should be considered as transposed modes in B; they may be recognized by their frequent seventh mode cadences on lower C. The Palm Sunday gradual *Tenuisti* is a case in point. It should be remembered that a frequent and constant B flat is useful as a guide, but it often happens that several interpretations are possible. We have already given suitable final formulae for such cases.

Generally speaking, pauses on lower C, not only in a fourth mode, but also in first and second and in sixth modes, should be harmonized with the chord of C major and most often with the first inversion of this chord, since these pauses are merely secondary cadences; the chord of A minor is generally belied by the context and takes the ear by surprise. When this lower C comes in the full swing of the movement and does not give the feeling even of a provisional pause, the context may then suggest F major or A minor as suitable harmonies, especially for linking up with what follows.

We shall see later, that in a seventh mode, pauses on the fifth above the tonic are frequent; the influence of the G is, however, so strong that its presence is felt, even when, because of the treble F, modal analysis takes us into group II; the D, in con-

sequence, should be harmonized with the chord of D minor. We have here a remarkable case of *tonal synthesis*, a fact which constitutes an exception to the rules which were based on the majority of cases (see below, our study of the seventh mode).

In the same way, a fourth mode on E, which is a transposed mode on B and has, therefore, an obligatory B flat and C for tonic and is of a seventh mode type, may rest on G, the fifth of its tonic C, in spite of the melodic context, which takes us into third group. We find an example of this in *Credo I*. Here, although the tonic is not heard in the melody, the frequent pauses on G seem to suggest it. Although the semi-tone A-B flat should make the use of the triad on C impossible, because of the E natural (forbidden in group III), we may yet treat these pauses on G in the same manner as we treated pauses on D in a seventh mode, i. e. harmonize them with the chord of C major. It should be noticed that the stability of the E removes here all traces of its character of a leading note. The true nature of these pauses will be better recognized if the Credo is transposed a fifth higher with pauses on D. If the gradual, *Tenuisti* is likewise read a fifth higher, its resemblance to a seventh mode will be made more striking.

Our explanations will have shown that a cadence on G, in close proximity to a B flat, may be harmonized in three different manners:

a) First and second mode type with *G minor*; this is the normal procedure in group III.

b) Seventh mode type with *C major*; this is a case of tonal synthesis.

c) Eighth mode type with *G major*; in this case the cadence creates a modulation; the flat is purely accidental and probably an error and should be treated as a note foreign to the harmony.

These principles will be found to leave considerable freedom in the interpretation of the melody.

### § 3. — FIFTH AND SIXTH MODES.

A) *Cadences*. — Two types of harmonic cadences are possible, each with a clearly defined use: the *perfect cadence* or sequence B flat — F in the bass; the *plagal cadence* or sequence B flat — F in the bass. As in a first mode, a plagal cadence may be built up on a pedal bass:



etc. 2. The plagal cadence.



In the last examples of the two last lines, we find octaves by contrary motion between the extreme parts. These are allowable in free composition.

The last four examples present great difficulty owing to the melodic B natural being followed by a torculus and punctum, a formula which can only be interpreted as a plagal cadence; the appearance of B flat in the harmony seems to create a "false relation". The melodic B natural should be treated as a note foreign to the harmony and the introduction of the B flat in the harmony delayed as long as possible, as in the last of the above examples. In this way, the formula torculus and punctum retains its normal rhythmic harmonic character, which makes the final bass coincide with the first note of the torculus (see Part II on feminine endings).

1. The perfect cadence may be used when E natural has appeared in the melody and has not, up to the cadence, been followed by a subsequent B flat; its use is especially recommended when, in the cadence formula, the melody uses only B natural

and excludes B flat. Difficult cases, to which we have just drawn attention, must, of course, be considered apart.

In perfect and even in plagal cadences, it is often better to make the bass double the tenor on the last chord but one (as in the first of the above examples); this sounds less heavy.

The distribution of parts varies considerably, moreover, according to the context. In some cases, a chord of the sixth or first inversion (with E in the bass) should be used for the last chord but one.

Cadences, using the torculus and punctum, in which B natural immediately or almost immediately precedes the final formula, may be treated by the upward resolving appoggiatura or suspension of the second or, in other cases, by a downward resolving appoggiatura or suspension of the fourth (B flat). This is perhaps a better solution than the one given above for the same cases,



Downward resolving  
suspension

Upward resolving  
suspension



2. When there is a B flat in the cadence formula and especially when B flat has been exclusively used throughout a piece, in a perfect cadence without an E natural in the melody, E natural in the harmony would take on the character of a leading note and would transform a Plainsong piece into a modern composition in F major. True, *Mass VIII*, the antiphon *O sacrum*, etc., may resemble our modern major, but this resemblance should not be emphasized in the harmony.

In all these cases it is best to use the plagal cadence and thus conform to elementary modal rules. Nor should we forget the curious equivalence between formulae in F (sixth mode) and formulae in G (eighth mode), which would seem to exclude E from the true harmony.

As to sixth mode pieces, which contain neither B natural nor B flat, these may be given either cadence at will. It should be remembered, however, that an E, whether melodic or harmonic,

may take on the character of a leading note merely through an injudicious choice of chords such as :



This is pure modern F major, because of the proximity of B flat to the leading note E.

In cases where the melody, by rising from E to F on the cadence, seems itself to give to E the character of a leading note, B flat should be excluded from all the preceding harmonies. Should B flat appear in the melody shortly before the cadence, then, either the B flat or the E should be treated as an auxiliary note. Ways and means for avoiding the harmonic succession C-F are certainly hard to find, especially in the case of an *Amen* at the end of a piece in which B flat has been constantly used.

B) *Fifth modes* are of two kinds; some utilize both B natural and B flat, some only B natural. The rules already given should leave no doubt as to the harmonic consequences of this.

Others use only B flat or are written in C, which comes to the same thing. Modal rules should be applied, and in concluding, only the plagal cadence should be used. A pedal bass will be found useful in practice (Cf. *Mass VIII*, and *Agnus IX* and *XVII*).

C) *Sixth modes* differ from fifth modes by the area which they cover, which is a fourth lower.

Some sixth modes do not rise beyond middle A and thus remain within the compass of the defective scale of the second group. In others, we find that B flat is almost always the rule. This mode may also be found written on C, in which case the F is the equivalent of B flat in the usual seat. What has been said should suffice to make truly modal harmonization a possible achievement. Resting points on lower C are frequent and should generally be given the chord of C major, nearly always in its first inversion.

In a sixth mode on C, B flat, in accordance with certain general rules, may impose restrictions on the use of E natural; if the melody is transposed a fifth lower, E flat will, under the same conditions, restrict the use of A natural. (Cf. antiphon : *Ave regina*, ornate melody).

In a sixth mode on F, with constant B flat, in which E is excluded from the cadence formula, the plagal harmonic cadence must be used (Cf. introit : *Réquiem*).

#### § 4. — SEVENTH AND EIGHTH MODES.

A) *Cadences*. — These are of three types.

I. The following is the best :



From it we get the ornate formulae :



In this example the use of the chord of the sixth, with the melody doubling the bass must be justified by the context.

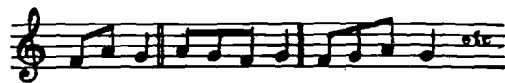


The chord of the major seventh on F, as bass, sounds well; it has the added advantage of softening the rather harsh passage of the melodic B over the bass F, which is doubled in the alto when the seventh is not used.

The rules given in Part I concerning the intervals of the diminished fifth and the augmented fourth should not be forgotten; there must be no passing melodic F on a chord of G major. When, however, the C is suspended (downward resolving suspension of a fourth), the melodic F may quite well be used and will

sometimes be found useful in practice (Cf. second example in second line of ornate formulae).

2. When the melody runs as follows:



A study of all the modes in B in the Gradual will show that cases (and they are rare), in which B natural is in close proximity to F, can be explained in exactly the same way as those we have already met with. The chord of the diminished fifth, used as a final chord of repose, is obviously a harmonic monstrosity. Anyone trying it at a keyboard will immediately be convinced of this.

A curious feature of the seventh mode is that although for the most part it follows the usual modal rules, it continues, even in group II, to be influenced by its tonic G. Resting points on D often seem to imply this tonic. They should, therefore, sometimes be harmonized with the chord of G major, and this in spite of the proximity of the melodic high F. The note B, far from being a leading note, has here a firm and stable character.

But passages where, as in the two allelúias quoted, the second group is clearly isolated, require the chord of D minor on the melodic high D, as also, for example, the *qui tollis peccata mundi* of *Glória IX*. In some cases, both solutions are possible. Be that as it may, we have here a departure from the harmonic laws hitherto established, and this departure, like the laws themselves, is based on the examination of the melodic text, though only in so far as this may be done legitimately (i. e. to link up with what follows). As a general principle, however, modal rules should be observed<sup>1</sup>.

C) The eighth mode has a marked tendency to rest on lower D; these pauses are of a first mode type and should be harmonized with the chord of D minor.

The descending fourth G to D with return to G (G-D-G) is not infrequent and should be harmonized with the chord of G major as there is no change of tonal group. If, however, the note F intervenes, we are faced with a serious difficulty of which intonations similar to *Ad te levávi* (introit for the first Sunday in Advent) are an example.



The first interval of a fourth D-G may be given the chord of C major but a change of harmony will be required on the F. so a certain degree of heaviness will be unavoidable.

<sup>1</sup> When the melodic D forms the junction between two phrases, one of which is in group I and the other in group II and *vice versa*, the conciliatory role of the suspension should be noticed. The G of the chord of G major, may be suspended and resolved on F, the third of the minor triad on D. The A, fifth of the minor triad on D, may be suspended and resolved on G in the chord of G major.

Of special note, moreover, is the analogy between such formulae and the intonation formulae of second modes. The latter, written on D or on A, naturally suggest that the third above the tonic is a minor third; written a fourth higher, we should have B flat. Certain eighth modes do, in fact, introduce B flat after this type of intonation; they are in reality, for a moment, second modes on G. So long as neither B flat nor B natural has appeared in the melody, the harmony should not foreshadow what is to follow, at least not in any marked way. The analogy, which we have pointed out, does create serious difficulties as for instance in the communion *Comédite*, in which the B, which is almost constantly flattened, becomes natural only towards the end of the communion, shortly before the final cadence. In order to safeguard the cadence, it is best, as far as possible, to use only neutral chords; first those common to third and second groups and then those common to second and first groups.

In the intonation *Ad te levávi*, the initial G should, therefore, be treated as an appoggiatura of the F. The D in the bass forms part of the true harmony and cannot hamper the resolution of the chord.



The B natural appears in the bass, but as it descends to A when the melody rises to the upper C of *ánimum*, its value here is merely that of a passing note.

The following shows how to avoid B in the harmony :



Lower D is less easy to justify harmonically; nevertheless, the chord of the third fourth is not incorrect here; this method of treatment has been analysed in Part I<sup>1</sup>.

<sup>1</sup> The antiphon *Urbs fortitudinis* (seventh mode) of the second Sunday in Advent presents a similar case and, for a brief period, by using B flat, is a first mode on its tonic G. From the words *et antemurale* B flat should be abandoned in order to prepare the way for B natural which appears on *portas*.

We have already spoken of certain B flats — in all probability wrongly marked — which are to be found in the cadence formulae of the eighth mode. These should be treated as auxiliary notes so as not to jar with the final harmony.

Finally, when F is omitted from the cadence formula, and when this formula is also related to that of the fifth or of the sixth modes, F should be omitted from the harmony. In such cadences, the plagal cadences given for fifth and sixth modes but transposed one degree higher are clearly indicated.

The end of the gradual *Clamavérunt* which is in seventh mode (on the word *salvabit*) is in reality, a fifth mode cadence; F sharp is of course out of the question, but F natural is equally to be avoided.

Other remarkable examples of equivalence are to be found in the lists in the first chapter of Part III of this book. Fifth and sixth modes seem however to have borrowed more from seventh and eighth modes than *vice versa*.

Moreover, the E in the chord of C in fifth and sixth modes often gives the impression of a leading note; and this is certainly more contrary to the general spirit of Plainsong melodies than the slight harshness of an unexpected F in seventh and eighth modes.

## CHAPTER IV.

### Practical details.

#### § I. — INFLUENCE OF THE MELODIC CONTEXT.

We have already said that, as a general principle, the harmonies used should, as far as possible, be a synthesis of the most important intervals in the melody.

1. Thus, when the melody moves by leaps, the requisite harmony on any particular note may be indicated *a*) by the note immediately preceding it :

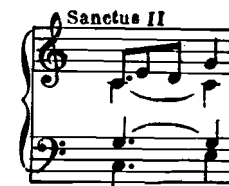


*b*) by the note or notes which follow it :



though not necessarily so; the general trend of the phrase is what should be most carefully observed.

2. Sometimes, a whole group makes the use of a certain chord compulsory <sup>1</sup>.



<sup>1</sup> It must be confessed that the mere change from root position to first inversion is a very weak way of marking this long G. From a rhythmical point of view it would be better to begin with the chord of F major, while the movement is still in full swing; the first inversion of the chord of C on the long melodic G would, then, have its proper value. The question arises: which of the two, melodic context or rhythm, should serve as a guide? We see, here, how difficult is the task of accompanying Plainsong. Moreover, this G might also be treated as an appoggiatura in a chord of D minor, which would foreshadow the melodic conclusion of the first *Sanctus*.

In many cases the fourth D-G cannot be harmonized with a B flat (chord of G minor); because of the prospective B natural, — nor with a B natural (chord of G major), because of modal reasons already given. The same applies to the fourth G-C in group III.

We have attempted to provide a solution in the examples given of third mode and of certain of the eighth mode intonations.

3. It will be noticed, if abstraction be made of purely ornamental notes, that many melodic sections are written within the limits of a third; this immediately determines the choice of the accompanying chord. Chords of transition should, however, also be used to indicate the rhythm; the value of these should not exceed that of a compound beat and they should proceed, as far as possible, by step in the bass. Or again, as has been explained in Part I, a suspension or appoggiatura in the alto or tenor may be introduced.

Speaking generally, the outline of nearly all melodic sections suggests one principal harmony; any other used should be of a passing nature. The principal harmony should therefore not be changed without reason, nor should new harmonic shades be sought after, especially on notes of the same pitch but a uniform colour of harmony should be retained and modified only in detail.

a) The following (beginning of *Kyrie II*) is an example of bad accompaniment:



The sustained chord of A minor destroys the modal character of this passage.

Without doubt, G major should be the dominating harmony. True, an ictus occurs twice on the melodic A, but an ictus shows us the place and not necessarily the nature of this chord. The claims of both rhythm and melody must be considered.

We suggest the following:



The complete harmony is not heard until we come to the long melodic B; the alto alone may prolong the first melodic G by

being sounded with the first A in the melody; the bass and tenor appear only on B. The following A and C are treated as embellishments — which, in reality, they are. — The chord of A minor is merely a chord of transition.

In the same way, the whole of the first section of *Kyrie IV* presupposes the harmony of A minor. The movement may be kept up on the doubled A by a dissonant passing note in the bass. The second section begins by outlining the chord of D minor, but this chord should not be used at once, because the long A which ends the first section, and the A which begins the second section, would thus have two different harmonic colourings, a thing always to be avoided. Instead, a suspension, which creates the major seventh F-E and, while retaining the elements of the preceding harmony, anticipates that which is to follow, will bring about an agreeable fusion of the two sections. We see here the best use to which the suspension can be put. It is, as it were, an interpenetration of the two harmonies.



It should also be noticed that the chord of D appears only on the final note, the melodic F being treated as an anticipatory note, in conformity with the rules concerning rhythm.

b) There are a great many sections which extend mainly over the minor thirds A-D or lower D-F. We have already had occasion to give a practical harmonic formula for cases like the following:



In examples of this kind, the tenor is on the third of the triad and thus momentarily doubles the bass, while the alto alone emphasizes the details of rhythm.

4. We have already said (Cf. Part II on feminine groups) that the harmony may sometimes foreshadow the melodic conclusion.

## § 2. — TRANSPOSITION.

In many cases, Plainsong melodies are written either too high or too low and must, therefore, be transposed. In former times, when, as can be seen by the varying pitch of the same melody in different manuscripts, the question of relative pitch was alone of account, absolute pitch was disregarded, the precentor intoned so that there should be no hesitation, and all followed him.

The choice of pitch, whether high, low, or medium, is determined chiefly by the quality of the available voices, but also by the character of the piece (vocalization is lighter on high notes) and finally, by the acoustical properties of the building whether church or chapel — cathedral or monastery. The order in which the pieces of one and the same Office are linked together should also be taken into consideration : *introit*, *Kyrie* and *Gloria*; *gradual* and *alleluia* or *tract*.

It is, therefore, impossible to lay down hard and fast rules. To reduce every piece to a unique dominant would make the melody sometimes too high, sometimes too low, and would lead, for instance, to linking up a first mode in D with a second mode in F sharp. We would more easily understand this principle of a unique dominant being applied to Vespers, as it would result in the psalms all being recited on the same note; but this does not, to our mind, justify such combinations as the linking up of a final D to a final F sharp.

A good accompanist should be able to transpose into *any* key and to do this he must be familiar with accidentals and with all the clefs; and he must realize that for every transposition there is a fictitious clef.

Before a piece of Plainsong is harmonized, it must first be modally analysed. It is a good plan to mark down in pencil on the book, the Roman figures I, II, III, to show the group changes. To avoid confusion, which would inevitably ensue, it is good also to mark down the harmonic characteristics peculiar to each group when transposed into the adopted tonality. In the original writing we have, in group I: B natural; in group II: no B natural (except in certain stated cases); in group III: no E (id.).

If we transpose to a major second above the original writing, we shall not forget to mark in group I: C sharp; in group II: no C sharp; in group III: no F sharp, etc.

We know, moreover, that the original Plainsong scale, if transposed :

a semi-tone higher,	has seven sharps or five flats in the signature.
a tone higher,	has two sharps as key signature
a minor third » » »	three flats » » »
a major third » » »	four sharps » » »
a perfect fourth » » »	one flat » » »
an augmented fourth » » »	six sharps » » »
a diminished fifth » » »	six flats » » »
a semi-tone lower,	has five sharps » » »
a tone » » »	two flats » » »
a minor third » » »	three sharps » » »
a major third » » »	four flats » » »
a perfect fourth » » »	one sharp » » »
an augmented fourth » » »	six sharps » » »
a diminished fifth » » »	six flats » » »
a perfect fifth » » »	one flat » » »

In this table, the last sharp is optional; it is annulled when B flat appears in the original writing. Similarly, in a tonality with a key signature of flats, a flat may be added when B flat appears in the original for the first time.

Here then are the fictitious clefs in transposition :

### C clef on fourth line

when transposed a second higher becomes	G clef second line
» » a third » » »	C » third »
» » a fourth » » »	F » fourth »
» » a second lower » » »	C » first »
» » a third » » »	F » third »
» » a fourth » » »	C » second »

### C clef on third line

when transposed a second lower becomes	G clef second line
» » a third » » »	C » fourth »
» » a fourth » » »	C » first »

### C clef on second line

when transposed a second lower becomes	F clef fourth line
» » a third » » »	C » third »
» » a fourth » » »	G » second »
» » a fifth » » »	C » fourth »

### F clef on third line

when transposed a second higher becomes	C clef first line
» » a third » » »	C » fourth »
» » a fourth » » »	G » second »
» » a fifth » » »	C » third »



*F clef on fourth line*

when transposed a second higher becomes C clef second line

»	»	a third	»	»	F	»	third	»
»	»	a fourth	»	»	C	»	first	»
»	»	a fifth	»	»	C	»	fourth	»

We purposely omit transpositions which are of no practical use in Plainsong accompaniment.

Having read through the piece and decided to what pitch it is to be raised or lowered, the accompanist 1. should make a note of how many sharps or flats are obligatory in the transposition, not forgetting that *a*) in the case of sharps the introduction of B flat in the original text means naturalising the last sharp of the key signature, *b*) in the case of flats the introduction of B flat will mean adding another flat to those already in the key signature. 2. He should find the fictitious clef which will help him in his reading of the piece. 3. He should notice how the three modal groups are distributed in the new tonality.

The accompanist should in particular practise reading first modes with finals E and F (E natural, E flat, F natural and F sharp); second modes with finals F and G; third modes with final D; fourth modes with finals F and G; fifth modes with finals E and D; sixth modes with finals G and A; seventh modes with finals F, E and D; eighth modes with finals F and E, etc.

§ 3. — PSALMODY.

In the accompaniment of psalms the student should not depart from rhythmic and modal rules.

The chief difficulty arises through the rhythm changing with the words; but since the movements of the melody are most often regulated by the place of accents, and since the ictus does not necessarily coincide with the accent, it follows that chords at mediations and finals will not always be placed on the same melodic note. An example will illustrate our meaning.

Let us take for instance the mediation of the first tone:



(the brackets indicate the binary and ternary subdivisions). The rise of the melody on to B flat is sometimes ictic sometimes non

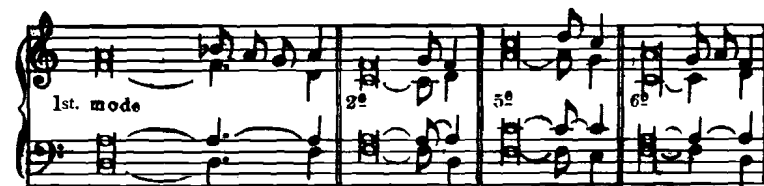
ictic; the same holds for the G of the last accent. Obviously, if the latter were doubled for a spondaic final, the process would be very much simplified; this, however, cannot be done.

I. — Purely syllabic mediations and finals are the most difficult to harmonize satisfactorily. They are numerous: first mode mediation; second mode mediation and final; fourth mode mediation, and final A; fifth mode mediation and final; sixth mode mediation; seventh mode mediation, and final B; eighth mode mediation and final.

In order to mark the rhythm of the words, the following are the chief points to be observed: *a*) ends of words; *b*) the accent, generally ictic, in words with dactylic endings; *c*) the general grouping of the words in accordance with their meaning in the phrase.

There are undoubtedly many cases in which several solutions are possible but there can be no question here of teaching any one the correct rhythmic treatment of all the psalm verses; we have merely tried to provide the accompanist with some practical suggestions and so put him on his way to finding what is required.

1. The simplest of all would be, of course, to have only two chords — one for the reciting note or tenor, the other for the final ictus of the mediation. This is sometimes possible<sup>1</sup>; it relieves the accompanist from following the rhythm of the text.



2. But this ultra simple solution is not always possible. Three chords are often necessary. Nevertheless, in the second, sixth, and eighth modes, a passing harmony may be used on the last

<sup>1</sup> These formulae, especially those of the second, sixth and eighth modes, do not claim to be perfect but to be a possible and easy application of our method of psalm accompaniment.

accent; this chord is non ictic in the case of a spondaic final, and ictic in the case of a dactylic final;



If two ictic chords are used on the mediation or on the final cadence (three in all, if we include the one on the tenor) no difficulty arises provided the final be dactylic, in which case there is a chord on the last accent. Ex. :



But, if the final cadence is spondaic, the ictus is most often carried back to the preceding syllable.



Nevertheless, in words such as *pedum tuborum, oriens ex alto, et nunc et semper*, the ictus is carried back not to the syllable which precedes the last accent, but to the one before it, which ends a word (*pedum, oriens*) or the group of monosyllables (*et nunc*).

We thus have :



(et nunc, et semper)

3. Finally, it may also be possible to go still further and to place the chord as in *miserator Dominus* (see the following example); this, of course, is more difficult, as an earlier ictus will have to be found.

In the seventh mode, when the first part of a verse has been given the chord of G major, the high F requires some other harmony and only the following writing is possible :



In the second case (*omnes gentes*) the chord must be placed on the syllable preceding the high F.

The simplest solution would be to use the chord of D minor on the entry of the tenor and to keep this chord up to, but exclusively of, the last note of the mediation. A reciting note a fifth above the tonic seems, however, to sound better with the chord of the tonic (G), and this is what is suggested by the solemn intonation formula. Moreover, D minor tends to obliterate the true colour of this mode too rapidly and is liable to cause surprise on the return of the antiphon.

II. — As soon as a *neum* (*clivis, podatus...*) is introduced either at the mediation or at the final cadence, the difficulty is at once considerably lessened. The change of harmony may be kept for the beginning of the *neum* without fear of error.



Should an earlier change be desired, it must be made in conformity with the principles we have already set forth.

When, after the mediation, the same harmony is not to be maintained, the text should be carefully studied in order to ascertain if the next syllable does or does not carry an ictus; the same applies to what follows the pause of the flex which, *qua* pause, must be marked by some harmonic movement. This can be done without difficulty. The same applies to any harmonic movement made on the reciting note, but this latter procedure should be used with great discretion.

III. — Finally, in applying modal rules, it should be remembered that the chord of A minor is not suitable for the dominant of a first mode (group III combined with group II). The chord of F major in root position, which in group I is clearly a chord of movement, may be used on reciting notes in the third and eighth tones, only in so far as it leads to another harmony before the final formula, i. e. to the first inversion of C major with E in the bass; this brings about a change of harmony during the sounding of the reciting note. The same applies to the chord of B flat in root position in the second mode.

What we have said about the accompaniment of psalms will suffice to show that the question is a difficult one and would require lengthy treatment if all possible combinations were to be shown<sup>1</sup>; but we hope to have given the elements of a practical solution.

#### § 4. — WRITING OUT AND EXECUTION.

Plainsong accompaniment should as a rule be written in three or four parts. A fuller harmony nearly always sounds heavy and confused. As to two part treatment, strange as it may appear, it brings out the accompanying part far too strongly and actually makes a "discant" of it; nor does the ear, as one might imagine, fill up harmonic deficiencies where incomplete chords are used.

What we should aim at is rather to give the impression of the old *continuo*, based on harmonies perfectly linked together in firm and tranquil progression; for this, three and, quite often, four parts are required.

In accordance with what was said in Part I of this book, melodic progression, even in the bass, should proceed by step rather than by leap. Preference should be given to sequences of chords containing notes in common, to discreetly sounded passing notes, which should be long, i. e. lasting a whole compound beat, and which will also help to give the impression of a sustained legato. Suspensions, as we have already shown, prepared on one

<sup>1</sup> This question has been fully analysed by the Rev. Dom Desrocquettes O. S. B. in his treatise *L'accompagnement des Psaumes*, published by Desclée, Tournai.

ictus, carried over another, and resolved on yet another, are valuable since they bring about the interpenetration of two successive harmonies. Harmonies of transition should be particularly delicate and light, and should proceed by step in the bass.

Rapid melismatic passages, such as the verses of graduals or alleluias, are better accompanied by three part harmony; a fourth part may be introduced, especially on cadences when this seems desirable. And again, the four parts should not too often be placed far apart from each other nor should the bass be written too low, as this might give an impression of heaviness. A fall in the melody should, however, be provided for, and, in a section where for instance, a third F-D, occurs frequently, the doubling of this third of the root note is quite legitimate :



All this has already been fully explained in Part I.

The alto, when joined by the soprano, may sometimes have to disappear; it should be allowed an honourable retreat and one should see clearly at what moment it is silent or is merged into another part.

We do not think that the melody should be left out in the accompaniment, not only because of the difficulty which the organist would have in following the choir, but because the top voice in the accompaniment (alto) would then be given undue prominence.

Attempts have been made at writing accompaniments in "*concertante*" style; such accompaniments curb the rhythm, draw wrongful attention to the organ and cease to be accompaniments. They may pass as free compositions but are certainly unsuitable for a melody which has been conceived as for one voice. It is infinitely harder to find beautiful modal harmonies than to elaborate vulgar harmonies, which is what most of the authors of these "*concertante*" accompaniments have done.

To stop the accompaniment from time to time and play only the chant, then to play in two parts, then in three and four parts, to introduce short canons etc. etc., all these contrasts draw attention to the organ and are pure vanity.

Finally, we would remind the reader of the *double anticipation* which we have already defined and which is sometimes indispensable. At times also, the preparation of a suspension, contrarily to the accepted rules, must be shorter than the suspension itself. We have given some examples of this.

In playing, a strict legato should be observed and notes common to two chords should not be repeated :



When a note is repeated in the melody, it should be held on the organ except where this would destroy the rhythm as in :



Held in such a manner the two Cs in the melody are heard as follows :



and this changes the rhythm.

At any bar line and even at a whole bar (where breath is taken in the melody only), it is best not to lift the hands from the keyboard. A fresh start on the organ would, according to the well known laws concerning the *relativity of sensations*, draw attention to the accompaniment, a thing always to be avoided, for every contrast attracts attention.

Need we add that the accompaniment should be subdued? Bourdons and flutes are the most suitable stops, but the make of the instrument, and the number of singers may modify these suggestions. As a general rule the diapason, the gamba, the principal etc. should be excluded. A soft four flute stop and even a doubling flute which sounds like a first harmonic will be far more effective than a more strident stop in correcting any errors of pitch in the singing. In any case a sixteen foot stop should never be used for the hands.

A sixteen foot stop in the pedal may well be used, especially in accompanying a male choir; but if this is done continuously, and always in the lowest register, it gives heaviness to the interpretation. Nevertheless, it supplies a substantial foundation to the harmony but should be completely abandoned in melismatic passages.

In conclusion, let it not be thought that it is always easy to play an accompaniment, even one that has been perfectly written out.

This is not the place to expound the technique of the organ, but, before attempting to accompany Plainsong, it is necessary to have some elementary knowledge of organ playing, for even the most enlightened Plainsong expert may be betrayed by his fingers.

As we have already said, this treatise is supplemented by a second part : *Vingt-neuf pièces grégoriennes harmonisées, avec commentaires rythmiques, modaux et harmoniques* written in collaboration with Dom Desrocquettes, and published by Hérèlle et Cie.

The principles set forth in this treatise will be found applied in the harmonized *Messe du Christ-Roi* and in the *Office du Saint-Sacrement* (published by Hérèlle et Cie, 16 rue de l'Odéon, Paris, 6<sup>e</sup>), especially those principles concerning chords, which are said to be dissonant.

The *Kyriale*, with accompaniments, written in collaboration with Dom Desrocquettes, has also been published (Desclée et Cie, publishers).