

THE RHYTHM OF  
PLAINSONG

ACCORDING TO  
THE SOLESMES SCHOOL

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119 WEST 40TH STREET  
NEW YORK 18, N. Y.

IMPRIMI POTEST:

Quarreriae, die 11a martii 1943.

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Abbas S. Mariae de Quarrereria.

IMPRIMATUR:

✠ JOANNES HENRICUS,  
Epus. Portus Magni.

die 13 Martii 1943.

## Translator's Foreword

**I**N their original French, the following pages were not written with the idea of publication, but form the substance of a series of "talks" on the principles of Gregorian rhythm, given by Dom Gajard in 1935 during the "Semaine Liturgique" organized by the "Ligue Feminine d'Action Catholique Française." I have used the word "talks," since, as Dom Gajard says in his Foreword to the French edition, we have not here a methodical or complete exposition of Gregorian rhythm, but rather a summary of the fundamental principles, given in a conversational and extempore manner.

When I suggested to Dom Gajard that a translation might be of considerable service to choirs in English speaking lands, and offered my services as translator, I asked if I should put the whole into the "third person," and write it in a less colloquial style. Dom Gajard replied that he would much prefer a translation as nearly as possible "word for word," so that it might be clearly understood as representing the teaching of Solesmes, without any adulterations, wilful or otherwise, on the part of a translator.

It is my endeavour, therefore, to put English phrases into Dom Gajard's mouth, and to let him speak for himself "with that spontaneity, repetition and parenthesis," of which he speaks in his Foreword, and which is necessarily found in familiar conversation. The material impossibility of multiplying musical examples in a course of lectures which were scarcely more than a commentary on examples written on the black-board according to need, made the editing of these notes difficult. Our aim therefore is simply to give a general view of Gregorian rhythm, so that the rhythmic suppleness of Gregorian melodies may be more clearly seen, and interpreted more intelligently.

It is not altogether unusual, even in these days, to meet with well-intentioned persons who are zealous for "Solesmes Principles" in the matter of Gregorian rhythm, yet who unintentionally play into the hands of those who are avowedly at variance with Solesmes, by overstressing points of minor importance, or — which is worse — misinterpreting rhythmic signs, or treating them in far too mechanical and lifeless a manner. One even hears of people who, in their zeal for the "ictus," instruct their choirs to strike ictic notes as with a hammer! Nothing could be further removed from the true principles of Solesmes.

As the following papers show, Gregorian chant, when sung according to the true rhythmic tradition, has life and flexibility,

and is far from being something mechanical. The much criticized rhythmic signs of Solesmes are nothing but a modern way of reproducing the corresponding rhythmic signs found in the best manuscripts of the Golden Age of Plainsong. Frequently the monks of Solesmes, when producing modern choir-books and transcribing old manuscripts into the later traditional Gregorian notation, were faced with some neum which clearly was very slightly lengthened. How indicate this? How avoid the dangers of singers overstressing a dotted note or a horizontal episema? The "nearest possible" indication had to be found in each case; and thus we find in the newest Solesmes productions, such as the *Antiphonale Monasticum*, horizontal episemas whose treatment varies according to the notes, accents, etc. with which they are associated.

It was in the hope of illustrating the life and flexibility of the Chant that Dom Gajard delivered the following lectures. It is with the same hope that I present this English translation; so that "friends of Solesmes" may be true friends, and know the fundamental principles on which "Solesmes theories" are founded, and that those who have been at variance with Solesmes may perhaps be led to ask themselves: "Have we really understood the true teaching of Solesmes, after all?"

Certain readers may detect a few details of terminology that differ from some of the better known English books on Gregorian Chant by authorities acknowledged as followers of Solesmes teaching. The most apparent difference is, perhaps, my use of "section" for the French *incise*. In this detail, I have preferred to follow the translator of Dom Sunol's *Text Book of Gregorian Chant*. The present liberty allowed us by the English language should not be taken as indicative of variations of doctrine among those who faithfully interpret the work of Solesmes.

Finally, I wish to record my sincere thanks to Dom Thomas Symons and Father John Higgins for suggestions which have greatly helped in the preparation of this translation.

DOM ALDHELM DEAN.

Quarr Abbey,  
Ryde,  
Isle of Wight.  
*Feast of St. Gregory the Great, 1943.*

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## Gregorian Rhythm according to the Solesmes School

THE work that we have to do together this week is no matter of pure aesthetics. Gregorian chant, however beautiful we may judge it to be, is not merely an art. It is primarily a matter of prayer, and by it we are raised at once to the consideration of things on the supernatural plane. If it dealt simply with pure music or natural aesthetics, ought a monk to leave his cloister in its service?

It is interesting to note that in Gregorian chant, art and prayer are inseparable; they are so closely bound together that they cannot be disassociated. The Chant cannot be sung well without prayer, neither can we pray well without singing well too. There is a certain parity between the social prayer of the Catholic Church and the inspired melodies in which it is interpreted and expressed. The composers of the Middle Ages were truly inspired, and in their melodies we find the very essence of Christianity.

Much as I should like to do so, I cannot now dwell upon this aspect of Gregorian melodies, nor help you to feel their supernatural beauty. Our present work is more practical and is limited to setting before you the principal rules of interpretation, to enable you not only to sing, but also to direct a choir. To achieve this end, I am obliged to speak much about pure theory and technique—both that which is strictly musical and that which is Gregorian. Such things may indeed appear forbidding at first, but they are nevertheless of capital importance.

I appeal to you therefore, from the outset, not to be discouraged, even though my explanations seem somewhat difficult: for without these indispensable first principles we shall never succeed in singing correctly. By the true simplicity of its melodic make-up, both modal and rhythmic, and by the very manner of its composition, Gregorian chant is essentially a delicate construction, which a mere trifle can damage. If you wish it to produce, first in yourself and then in the souls confided to your charge, salutary effects of which you may not even suspect it capable, then you must be able to sing it nothing less than perfectly. This is a condition *sine qua non*. So long as you rest content with the "more or less," that terrible "more or less" which spoils everything, you can practise all your life without ever feeling its valuable and blessed influence. It is only by singing the Chant according to the manner in which it was composed, in its entire beauty, that you will realize the extent to which it can be for you a magnificent means of "Catholic Action," in the strictest and truest meaning of the word.

For the rest, take courage! In spite of apparent complexity, Gregorian technique is really very simple. It can be reduced to a few theoretical and practical rules which, once thoroughly grasped, are easily put into execution. The first necessity is to clear the ground of a number of false notions, founded on nothing, which confuse all methods and make the Chant difficult if not impossible to sing. In attempting to do this first, I shall try to be clear: I will only ask of you a little patience, and you will see that all will go well.

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"But," someone may ask, "why keep us waiting with questions of theory? Why not proceed at once to the practical issue? We do not complicate matters so when teaching a child the piano!"

The reason is, that to the uninitiated, Gregorian chant presents a difficulty unknown in modern music. Gregorian notation is very far from possessing that absolute rhythmic precision found in modern musical notation. Modern musical notation, as everybody knows, is made up of a system of precise proportional values which determine the rhythm and which are indicated by signs or notes of various forms: semibreve, minim, crotchet, quaver, semi-quaver, etc. Furthermore, it has its material divisions, its bars of measurement which, however much we may dislike them, have none the less the incontestable advantage of setting the rhythm before our eyes, and of determining the exact position of certain rhythmic beats which help us to recognize the rest. No musician with a sense of rhythm can make a mistake.

In Gregorian notation all this is lacking: there are no bars of measurement (Gregorian bars have quite another significance, being simply signs of logical musical punctuation); there is no material indication of rhythm. Besides, the distinct variation in the forms of the written notes does not correspond to any difference of length in the sound represented, since all notes, whatever their shape or manner of being written, have each the value of a simple beat.<sup>1</sup>

<sup>1</sup> N.B.—Let it be clearly understood that we use the word "beat" throughout this work as the most convenient translation of the French "temps premier" or "temps simple." We do not wish the word to be taken as having necessarily any definite indication of length or brevity, loudness or softness, heaviness or lightness, but simply as representing *one note*. Furthermore, it must be borne in mind that in Gregorian chant each note is worth *one simple beat*, and is indivisible. In other words, whatever be the typographic form of the notes, they are approximately equal to one another. Modern musical notation has countless subdivisions: semibreve, minim, crotchet etc. In Gregorian chant, on the contrary, no subdivision is possible. If you represent a Gregorian note by a quaver, it is impossible ever to have a semi-



Admittedly there are indications of rhythm, and very valuable ones; above all, the neums. Yet even as regards these, distinctions must be made, which will be explained more fully later on. But neums are not found everywhere; purely syllabic passages (one note for each syllable) abound in Gregorian chant, even in the midst of elaborate pieces. You will tell me perhaps, that in such syllabic passages the Latin tonic accent is the rhythmic factor. This is true, yet we must understand clearly what this means, and the question is much more complex than at first appears. Moreover, it often happens that in Gregorian chant the tonic accent, as understood by most moderns, seems to be in contradiction to the neum which immediately follows. Take, for example, the Introit of the Requiem Mass:



In both these words the tonic accents have but one note, and are followed by neums which, in each case, draw the rhythmic impulse on to their first note. How then are we to avoid syncopation? One can well imagine that such cases—and they are exceedingly frequent—are a burdensome cross for organists not well versed in the question of rhythm, and who content themselves with the simple and usually misleading rules of most so-called “simplified methods.”

We may therefore conclude that, unlike modern musical notation, traditional Gregorian notation (square notes on four lines) does not, strictly speaking, indicate the rhythm, and sometimes even seems to throw it into confusion. Hence arises the popular belief, constantly repeated, that Gregorian chant possesses no rhythm properly so called, but is something vague, like speech, for which correct accentuation is sufficient.

On the contrary! We have here a point of paramount importance, which must be strongly affirmed from the beginning of

quaver. Gregorian notes can be doubled or trebled but never subdivided. This point is most important, for on it depends, to a great extent, the religious value of Gregorian chant, whose whole idea is to establish peace within us, which can only be achieved by the tranquillity of order. Such peace is primarily assured by the smooth and regular flow of melody and rhythm, without shock. Take away the approximate equality of notes, or rather, the precision of the simple beat, and whatever the effect we produce, be it never so beautiful, we should no longer be in the realm of Gregorian chant. We cannot insist too strongly upon this principle of interpretation of the Chant, for our modern temperament is constantly tempted to hasten the movement.

these papers. Gregorian rhythm is a true musical rhythm; it has a character all its own, but it is as definite as the rhythm of modern music. Every kind of piece, be it a small syllabic antiphon or a long elaborate Alleluia, possesses its precise rhythm, clear and fixed, which must be discovered at all costs, otherwise the melody will be robbed of all its beauty and all its *raison d'être*. But since the material notation by itself fails to indicate this rhythm clearly, the rules that enable us to recognize it without hesitation must be known.

Now it is evident that the principles to be followed flow, at one and the same time, from the nature of rhythm in general, and from the nature and character both of the Gregorian neum and of the Latin tonic accent. And as on these matters theorists have been at loggerheads for many years, we must begin by throwing some light on the question at issue. Hence arises the need of studying a little theory before approaching the actual practice. Let us therefore try first of all to see the question of rhythm clearly; for this is the fundamental subject of our study.

#### RHYTHM IN GENERAL

What then is the fundamental definition of rhythm?

Let us dismiss at once an over-simplified explanation, which is exceedingly widespread in spite of its constant opposition to facts. For many indeed, who content themselves with ready-made and "labour-saving" formulas, rhythm is a matter of intensity, and consists in the alternation of strong and weak sounds. The regular or frequent repetition of the strong sound they call the "accent," and this, for them, produces the rhythm.

But no, rhythm is not a mere question of intensity. It is a question of *movement*—of ordered movement; it is the grouping of sounds into a synthesis. In general, rhythm is essentially a *synthesis*. Its work is to withdraw each sound from its pure individuality and blend all into one large movement. This is done by a series of units, successively bigger and more comprehensive, the lesser enshrined in the greater, combining and reaching their mutual completion in one united whole.

I have called this a synthesis, which term I would explain as follows. When I speak, just as when I sing, I break up a period into a series of successive units (syllables in speech, notes in song), which, be they syllables or notes, only become comprehensible when re-grouped into a unity. Take speech. Supposing I speak in an intelligible manner, then while I am speaking and dividing up the period into a series of units in juxtaposition, my listeners must, by an act of the intellect, re-group the sounds I utter: form my syllables into words, my words into phrases, my phrases into sentences, in such a way that, in spite of the multi-

plicity of syllables, they understand one SINGLE idea. The same may be said of music, which, in its way, is a language.

It is the work of re-grouping, of synthesis, which we call rhythm.

I have said that this synthetic action is achieved by successive units which perfect and complete one another: syllables, words, sentences, and periods in speech; notes, simple rhythm, sections,<sup>1</sup> members, phrases and periods in the Chant. Let us take a concrete example. Here is a piece which is at once simple and clear, and is known to all. Admittedly it is not very authentic Gregorian chant, but it illustrates clearly the point in question: the *Adoro te*.

A - dó - ro te de - vó - te, lá - tens Dé - i - tas,

Quae sub his fi - gú - ris ve - re lá - ti - tas:

Tí - bi se cor mé - um tó - tum súb - ji - cit,

Qui - a te con - tém - plans to - tum dé - fi - cit,

Here are four members each distinct from one another, each with its own unity (intonation and cadence), and yet all blending together to form a united whole. If, when singing this piece, you fail to convey the sense of convergence of all the members towards a central point (the top Fa of the third member), you will, so to speak, have *spelt* the melody, you will have sung four successive fragments, you will not have sung a verse of a hymn, a *single* melody.

Let us look closely. Materially speaking, the second line *Quae sub his figuris vere latitas* is an exact melodic reproduction of the first *Adoro te devote, latens Deitas*. Nevertheless, since this second line forms a transition between the first and the third, which latter contains the principal accent of the whole piece, and since the melodic trend bears constantly towards this principal

<sup>1</sup> See Translator's Foreword.

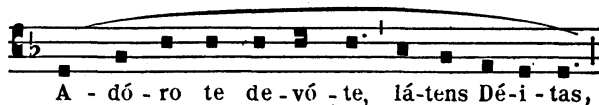
accent, the resemblance between the first two lines is merely material. These two lines should be joined together in a single moving crescendo, unbroken as regards expression, gradually mounting up towards the principal accent. Once this climax is past, the rhythm progressively falls away, coming to rest at last on the "final" of the mode.

You see, therefore, how the synthesis is made by the convergence of all the parts towards a common centre, which acts as the key-stone of the building. This ordered movement, gathering up in its progress all individual elements and making them share in its life, tends towards the climax which attracts it; it then falls away, as it were regretfully, but still remains under the influence of the principal accent. In a word, it forms a graceful curve, a parabola, made up of a rise and a fall, a spring and a coming to rest. If you have understood this—and it is difficult to see how any musician could fail to do so—you have understood the rhythm. Rhythm, in its widest extension as in its smallest component parts, is nothing else than this regulation of movement, this synthesis, this relation of a spring and a coming to rest. This definition will be repeatedly verified.

When I sang the *Adoro te* just now, you must have noticed how all the notes, without exception, freed themselves from their individuality in order to be enlivened by the general rhythm. This general rhythm, the rhythm of the whole piece, is itself composed of lesser rhythms, and while respecting the unity of each of the latter, it enlarges and broadens them, bringing them to their fullest measure of cohesion by animating them with its life.

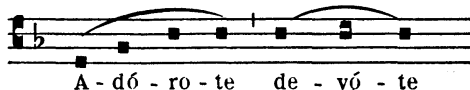
Examine the matter thoroughly. Our verse of a hymn, as we have seen, is made up of four members, each one ending with a half-bar. A careful scrutiny of the interior components of these four members shows us, as does also the examination of their individual sections and units, this same characteristic of rise and fall, the same relation of spring and coming to rest.

Take the first line, with its notes, and with the half-bar that ends it:



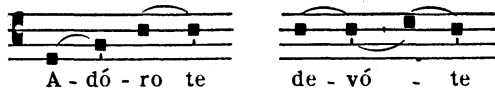
Clearly we have a rise, its little cadence marked by the lengthened note and the quarter-bar; then a fall away. There is the spring which tends toward the accent of *devotē*, followed by the gradual coming to rest: *latens Deitas*.

Let us continue our analysis. This member or line is composed of two sections. The first of these sections, *Adoro te devote*, can itself be sub-divided into two sub-sections:



This sub-division is equally apparent in words and melody. We have said two sub-divisions, and truly their distinction is so small that in actual singing they are intimately bound together. But *logically*, in the analysis, the distinction between them must, and does in fact, exist. In each sub-section we again find the double movement: a spring towards a centre (*ado-*, *devo-*), and a falling to rest (*-ro te*, *-ote*).

But we can proceed even further. Our two sub-sections can, in their turn, be sub-divided, and in fact are so treated. The four notes of each section (*fa la do do* and *do do re do*), however closely joined they may be, are not expressed by a single movement, but by two successive steps:



The notes naturally group themselves into pairs, as shown by the little connecting line above them. The first note is quite evidently an élan or spring, a departure, the lifting of the foot to take a step; the second (marked with a little vertical sign), is a fall, a coming to rest, the placing of the foot on the ground; like a momentary rest or the recovery of balance after having previously lost it.

Thus we find at the very foundation of rhythm little steps (the smallest possible rhythmic synthesis), each one made up of a departure and an arrival, a spring and its subsequent fall. They are but little units formed by two or three notes or syllables, and which, fitting into each other, give rise to sections, a larger form of unity. These in their turn, by grouping themselves together, always with the relation of rise and fall, progressively form the members, phrases, and finally the period, which last is seen to consist, as the Greeks recognized, in one large protasis followed by one large apodosis.

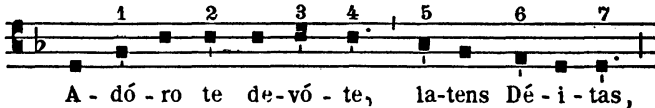
Scan a line of Corneille, declaim a sentence of Cicero or Bossuet, play a piece of Bach or Mozart, and you will see that both the broadest rhythm of imposing passages and the most daring dance of a lyric poem are equally achieved only by means of their evolution through all the stages just indicated, and, in

the last resort, arise from a series of steps. It is only thus that rhythm can be set in motion.

This leads us to an interesting point. Because of the essential unity of the living being, there is a close, indeed, an absolute connection between vocal rhythm and that vital rhythm which shows itself in local movement. Personally I am of the opinion that resonant musical rhythm is nothing more than the projection into the order of sound of that vital movement which we all have within us. As long as you are unable to associate musical rhythm with your own vital rhythm, there is something wanting. Musical rhythm is only good in the measure in which it makes you feel your own rhythm. "By rhythm alone," M. Combarieu truthfully says: "resonant matter takes a form. It is rhythm which makes it an organism, and an ordered and intelligible whole; so that the mind of the hearer, instead of wandering vaguely hither and thither, rejoices in itself, as though its own harmony had been revealed to it."<sup>1</sup>

One more word must be added before we leave this analysis of the *Adoro te*. I said just now that for many modern people rhythm is simply a question of intensity, and consists of the periodical recurrence of strong and weak sounds. The *Adoro te* suffices to show how far is this over-simple theory from the facts.

Taking once more the first line as our example, we have observed that the down-beats are on the notes here marked with a vertical sign and numbered:



Admittedly here the down-beats 1, 2, 3, 5, 6 coincide with tonic accents, and derive a certain intensity from this fact; but the down-beats 4 and 7 fall each on the final syllable of a word, and are consequently weak. It is remarkable that the two places in this line where the coming to rest is most noticeable are precisely the down-beats 4 and 7, which are lengthened sounds and the ends of sections. Clearly, therefore, strength is in no way necessary to give this impression of coming to rest. Furthermore, we must never forget that Gregorian chant is essentially Latin, born of the Latin text, in which final syllables are always weak, almost lifeless. This is as much as to say that all the most important falling passages, ends of sections, members, and phrases, which invariably coincide with the end of a word, are weak.

<sup>1</sup> J. Combarieu. "Théorie du rythme dans la composition moderne." Paris, 1897, p. 13.

If you have understood all that has been said so far, this *movement* which we have described and which is independent of all intensity (this point will be further touched upon later), you have understood rhythm. Rhythm is nothing but a work of synthesis, of grouping; it is the fusion of all the divers elements which concur to form the phrase. Rhythm arranges these elements, blending them into a unity, giving to each its appointed place in the succession and order of movement.

In a word, rhythm is the *relation* which is established between two elements, a rise and a fall, fusing them together in the unity of a single movement. Or, more exactly still, rhythm is the unity of movement brought about by the relation established between two elements, a rise and a fall.

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We have just described rhythm by making use of a concrete case, the *Adoro te*. Let us now proceed further and try to discover the actual *nature* of rhythm, to find out in what it consists.

We have said that rhythm is a matter of movement and not of intensity. What does this mean? To answer this, we must first make certain fundamental distinctions, for philosophy tells us that the only way to unravel a question satisfactorily is by means of distinctions and definitions. In only too many modern "Methods" of singing, one may discern, more often than not, an effort to draw a few comprehensive notions of rhythm out of a general study of some given melody, apparently without suspecting that this melody is a complex thing, made up of a number of elements each having its own life, character and reactions. What wonder, then, that clarity is wanting, that one only reaches the "more or less," and that one ends fatally in hopeless confusion? Would it not be wiser, before studying this "whole," first to examine separately the elements of which it is composed, and so acquire a real and accurate knowledge of each? This is an essential condition if one would realize the synthesis with the least possible chance of error. This is precisely what Dom Mocquereau did, and that is why he alone (let us admit it frankly) succeeded in introducing order and clarity into a question which had, for years and centuries, been a source of embarrassment and perplexity even to specialists.

The first distinction is of the utmost importance:

In Gregorian chant, which we are here considering, there are at least two fundamental factors of rhythm: the melody and the text. The melody has, or can have, its own precise rhythm. The Latin words, by means of their tonic accentuation, have their own rhythm also, which can accord more or less satisfactorily

with the melodic rhythm. Before seeing how these two could be brought into agreement, Dom Mocquereau wished to be perfectly clear about the nature of each independently. Therefore, before we examine the melodic rhythm and the verbal rhythm together, let us try to be quite clear as to what exactly is the melodic rhythm, and even pure rhythm as such. When we have done this, we shall be in a better position to discover its relations both with the melody and neums, and also with the tonic accentuation of Latin words.

The second distinction, also very important, is that of "orders."

In every piece of music, no matter of what kind, the sounds of which it is composed cannot be produced except as being subject to the qualities or physical phenomena which differentiate them from each other and which (omitting the question of *timbre*) may be reduced to three heads: pitch, intensity, and length.

The sounds are high or low according to their place in the melodic scale; this is the melodic order.

They are strong or weak according to their degree of intensity; this is the intensive order.

They are long or short according to their duration; this is the quantitative order.

These three orders are absolutely independent of each other. Intensity, for example, may at our choice be a quality of high notes or low ones, of long notes or short. These three orders of phenomena, which are inseparable from every sound produced, are therefore very different from one another. All three are physical, material, that is to say, produced by a particular disposition of the resonant vibrations themselves. The melodic order arises from the number of vibrations; the intensive order from their amplitude; the quantitative order from their duration.

We have now reached the point where we may formally ask: With which of these three orders is rhythm, as such, to be identified? Many moderns will be quick to answer: With the intensive order. This is a grave mistake. Actually, rhythm is not to be identified with any one of the three orders—melodic, intensive, or quantitative. Rhythm is a part of the organization of movement. It is not a physical or material quality. Its perception is principally an intellectual act, of an order superior to those already mentioned; an order which dominates all the others and which, while admittedly having an intimate connection with each one, governs and regulates them as absolute master.

Indeed, the different results produced by the variations of pitch, intensity, and duration give rise to a whole series of relations which the most elementary musician cannot fail to see. It



is precisely this which comprises the function of rhythm: to seize upon these relations, to clarify them and put them in order, in such a way as to blend them all into a unity, that unity of which we have already spoken and without which no work of art can exist. This arrangement and ordering of relations and of movement is the very essence of rhythm, and philosophers will readily grant that such an ordering of relations is not confined to the sensible order, but is chiefly a matter of the intellect.

But, someone may object, if rhythm is something different from the qualities of melody, intensity, and quantity, it cannot be an objective reality at all, and we are left in pure subjectivism.

I disagree. Rhythm cannot be identified with any one of the material or physical qualities of sound—it can even dispense with some of them; but it must be determined either by one of these qualities or by something else, as we shall see later. Rhythm must make itself known in each case, here and now, by one or other of the different elements contained or implied in the series of sounds.

We will try to make this clear. Imagine a series of sounds exactly equal in every respect:



Here we have no rhythm, but merely sounds succeeding each other, without any bond between them, what Dom Mocquereau used to call “Une poussière de sons.”

Suppose now we stress every second sound in a regular manner:



At once the sounds fall into groups of two. A relationship is set up between the strong sound and the weak one, and we have a *rhythm of intensity*, which nobody could deny.

Suppose now that instead of giving them a difference of intensity, we give to each an equal stress but arrange them by duration, doubling the length of every other note:



Once again the sounds fall into groups of two; no longer by means of intensity but of duration. The grouping is equally real, but is formed in another manner. Just as, a moment ago, intensity without the help of duration was enough to form groups, so now

duration without the help of intensity suffices to achieve a similar result, and we have a *quantitative rhythm*.

We are forced logically, therefore, to draw a conclusion: If I can obtain rhythm by means of intensity without the aid of duration, then duration is not essential to rhythm. Similarly, if I can obtain rhythm by means of duration without the aid of intensity, then neither is intensity essential to rhythm. Hence, rhythm can exist apart from intensity, apart from duration, and even apart from melody, provided it be determined by some other element. If, therefore, it can exist without any of the elements given, it is evident that it is not to be identified with any one of them.

I would go further, and say that since the perception of rhythm is not of the purely physical and material, but rather of the intellectual order, it is not absolutely necessary that there should be, in every case, some distinguishing element in the order of sound, intensive, quantitative or melodic, provided there be something else to determine the rhythm; as, for example, in speech, the tonic accentuation of the words. Indeed, a simple gesture made by the conductor of the orchestra or the choir-master can be amply sufficient to make the rhythm perceptible. M. Maurice Emmanuel, the eminent professor of the Conservatoire, and a specialist in Greek music, affirms this repeatedly and with insistence in his magnificent article on '*l'Art Grec*' in the *Encyclopédie Lavignac* (Tome I). According to him, the ancients considered musical art as something so delicate and supple, that in order to perceive the rhythm it was not enough to hear the melody, but one had also to watch the bodily movements of the dancers. One must remember that in those days, music was never considered by itself, but in intimate conjunction with poetry and dancing, which always accompanied it.

This brings us to our final conclusion as regards the essence of rhythm. If, philosophically speaking, the perception of rhythm can be determined as well by sight as by hearing, it stands to reason that its principle is to be found neither in the ear, nor the eye, nor in any one of our physical senses, but in our superior faculties, and, in the last resort, in our intellect. Hearing and sight provide the interior senses with those impressions on which the intellect can perform its work of abstraction and synthesis. In other words, although rhythm is founded upon material elements, it is independent of them, and is of the intellectual order.

This again, is substantiated by M. Maurice Emmanuel (in accord with such unimpeachable musicians as M. Vincent d'Indy, M. Laloy, etc.). When he speaks first of the rhythm of ancient times, and later, that of the music of the Renaissance, he calls it: "... a living but perfectly free organism, whose perfections cannot

be revealed by the ear alone; the mind must be trained to appreciate it; . . . it is an internal organism, whose structure can only be understood by the mind."

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Thus we have seen that rhythm is not a matter of intensity but of movement: it forms a hierarchy, an ordered synthesis of relations which are produced by a succession of sounds, together with the different material qualities which accompany them.

We have now to examine more fully the development of this synthesis, and especially the constitution of the section, which is the first of the greater rhythmic units.

From the purely technical point of view, one might well say that the "mechanism" of the section is a synthesis of three super-imposed schemes:

First scheme:—The formation of the *elementary rhythm*, through the co-ordination of two or three simple beats. The rhythmic touch, or point of rest, or "ictus," is invariably the end of the movement.

Second scheme:—The formation of *compound time*, by the fusion of two elementary rhythms on the rhythmic ictus. Here the rhythmic touch remains indeed the end of the preceding movement, but becomes at the same time the point of departure for the movement which follows.

Third scheme:—The formation of *composite rhythm*, through the co-ordination of little groups in compound time. Here each rhythmic touch, while retaining its own character, has a special function of élan or of fall in the general motion of the phrase, or of the full rhythmic synthesis.

These schemes will be examined in the next paper.

## II.

### The Development of the Rhythmical Synthesis and Formation of the Section

In the last paper we showed, by means of an analysis of the *Adoro te*, the nature of rhythm in general; that it is a synthesis realized by means of successive steps: words, sections, members, phrases; each of these units being formed by a relationship of rise or élan, and fall or coming to rest. We also saw that this relationship is in the order of movement, and not in that of intensity (a point of primary importance for the understanding of Gregorian rhythm). We concluded by saying that

the next subject for our consideration must be the development of the rhythmic synthesis, and in particular, the formation of the section. Obviously, once the true nature of the section, the first unit, is established, all that is left to do is to put it in relation with its neighbouring sections, by means of proportion, subordination etc., in order to form the members and phrases. A more delicate matter is to see with certainty by what means this unity of the section is achieved, as it were, *ad intra*; how it is that successive sounds can be grouped to form a real unity.

We said in the last paper that the section is, in brief, built up on three super-imposed schemes:

Elementary rhythm,  
Compound time,  
Composite rhythm.

Let us now examine these schemes separately.

#### ELEMENTARY RHYTHM

Imagine a series of sounds succeeding one another, equal in intensity, but alternately long and short:



As we saw in the last paper, an order is at once established; the sounds fall into groups of two, and a relation is set up between the short and the long. The short sound, because it is short, is a departure, a spring, a tendency towards something. On the other hand, the long sound, because long, indicates a suspension of movement, an arrival, a rest, the end of a movement started:



There is, then, a relationship between the short sound and the long one which binds them inseparably together: they attract and complete one another. This is even more noticeable if, while singing, the whole body be brought under the influence of the voice. One immediately receives the impression of taking a step; and a step is to walking what an elementary rhythm is to a phrase. A step consists in raising the foot and immediately replacing it on the ground; that is to say, a step is the relation established between this departure and coming to rest. When the foot is raised, the body momentarily loses its balance, and

seeks imperatively to find it again as quickly as possible by replacing the foot on the ground. This placing of the foot on the ground is nothing else than a coming to rest, the end of a movement begun.

I said that this relation of rise and fall, of spring and of coming to rest, binds the two extremes indissolubly together. For indeed, the raising of the foot, the loss of balance, necessarily demands its replacement and the recovery of balance. It would be strange to see a walker who wished to stop for a moment, do so with one foot raised in the air! On the other hand, the coming to rest is only possible on condition that a movement has previously begun. If you have both feet on the ground, you can only place one in front of the other on condition that you first raise the foot you wish to move; and it is precisely this connection between the raising and lowering of the foot which makes the step. Each time you raise your foot and lower it again further on, you take a step. Whether or not you tread noisily, with wooden sabots on a parquet floor or in bedroom slippers on a thick carpet, is of no consequence; in either case you move forward, and it is not the noise which makes you do so!

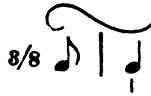
If, instead of a step, we take the undulations of the waves of the sea as an illustration, we see that each wave is made up of a rise and a fall, a crest and a hollow. The hollow, which is the end of one wave and the beginning of the next, makes no noise, but it is none the less real.

Thus, the wave of the sea, the step of the walker, or the elementary rhythm (which is their equivalent in the world of rhythm), is not the result of a relationship of weakness to strength, but solely of a spring, or departure, to a fall, or repose. It is the complete and natural movement from a departure to an arrival, or, if you will, a movement which begins at the beginning and ends at the end!

In order to realize this relation, we have supposed two sounds of unequal length, because the long sound clearly illustrates the more or less provisional suspension of the movement begun. But if, on the one hand, you have really grasped this relation of rise and fall and, on the other hand, the connection between musical rhythm and the vital rhythm of the person who sings, you will understand that inequality of length is not absolutely necessary for the perception of rhythm. If some other element (melody, intensity, *timbre*, etc.) intervenes, which marks and brings home to us the repose following on movement, then length, which is no more than a material indication, can disappear. Every long sound, because long, involves a certain sensation of repose, but this impression of falling to rest can exist without length, provided it be made apparent by other means.

Thus, once again, we see that rhythm is a synthesis and a grouping of sounds; it is a kind of vital influence which joins two sounds, hitherto merely in juxtaposition, by starting with one of them, rising up, and then falling to rest on the other. Once more, and for the last time, I maintain that the departure is characterized by a tendency towards something, and that the arrival is characterized by the end of that tendency. Thus the little vertical sign which we place on the note of repose, or down-beat, is no indication whatever of intensity, but solely of the repose after a previous élan, and the end of an elementary rhythm.

If now we wish to write this elementary rhythm in modern musical notation, we must necessarily place it astride the bar of measurement joining two measures. It begins with the up-beat, the last beat of the measure, and ends on the down-beat, the first beat of the measure which follows:



To write it in any other way would involve syncopation, and an instant's reflection is enough to show that this is the natural way of singing it. From this it follows that rhythm is not to be identified with the measure, but is, in fact, its contrary. We shall touch on this point again later, when treating of compound time.

The law of overlapping is the rhythmic law *par excellence*. In this connection, I am pleased to quote once more the reliable testimony of M. Maurice Emmanuel, who is a specialist in the musical art of Ancient Greece. After having inveighed with peculiar vigour against the supposed "strong beat," M. Emmanuel was naturally led to ask himself, how was the rhythmic sequence made apparent in Greek verse, where the "strong beat" theory is untenable? His answer is perfectly clear: By the law of overlapping, that is to say, by setting the words astride the bars of measurement; this is, in fact, one of the laws of ancient poetry of which we can be most certain.

We may here note that M. M. Emmanuel was working on Greek music for a long time without knowing anything of the works of Dom Mocquereau. At the same time, Dom Mocquereau was working at Gregorian music without being any better informed as regards the labours of M. Emmanuel. Now each of them, working independently of the other on different subjects

and using different terminology, came to precisely the same conclusion, to the same fundamental explanation of the nature of rhythm. Their terms are different, but their teaching is absolutely the same. This identical testimony of two learned men, each of them a specialist in a different branch of ancient music (which is essentially rhythmic), is surely not without significance.

As regards the terminology of elementary rhythm, the following are the words we ordinarily use to express the *élan* and the report (*retombée*) respectively:

spring	repose,
arsis	thesis,
up-beat	down-beat,
<i>élan</i>	rhythmic touch,
	ictus. .

The words in each of these columns are synonymous, and may be used indifferently. *Arsis* and *thesis* are the two Greek terms consecrated by usage, and signify the *élan* and the fall to rest respectively.

The word "rhythmic touch" is, perhaps, one of the most satisfactory to use; it awakens no idea of intensity and indicates solely the moment at which, in walking or dancing, the foot touches the ground in order to be raised again, or the moment when the bird beats the air with its wings in order to fly upwards.

The word "ictus" is frequently misunderstood. Nevertheless it is the classic Latin word used to indicate the rhythmic repose. But the "blow" or "stroke" is by no means produced by the voice or throat, but is simply the stroke made by the conductor of the orchestra with his wand on the desk, to indicate the movement. It is well known, as I have already observed, that among the Greeks, music and dancing were inseparable, precisely because of that close connection already mentioned between musical rhythm and the rhythm or movement of the bodies of the dancers. Their steps, or contact with the ground, had always to coincide with the musical down-beat, or point of rest. To indicate this point, the conductor of the orchestra would tap lightly with his wand on the desk before him. Such was the "ictus," an indication of movement—not of intensity, and such is exactly the meaning which we give the word to-day.

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We have insisted many times that elementary rhythm is altogether independent of intensity, that is to say, its "ictus" is, of itself, neither strong nor weak. This may easily be proved.

From the intensive point of view there are only three ways of singing the two sounds necessary to make an elementary rhythm:



- (a) Either they are equally strong;
- (b) or the first is weak and the second strong (the modern theory of intensive rhythm);
- (c) or the first is strong and the second weak (the contrary of the modern theory).

I contend that if, in these three possible forms of intensity, you feel the same relation of up-thrust and repose between the two beats, it shows that, metaphysically speaking, this relation of élan and repose is absolutely independent of the *place* of the intensity. I defy anybody to prove the contrary.

Now, one has only to sing, in order to feel distinctly the same relation in each of these three arrangements of intensity. For my part, I think that one feels the relation of rise and fall best in the third hypothesis (c, weak ictus), because a strong sound, if placed at the beginning, harmonizes better with the bodily effort to move forward, and a weak sound accords better with the body's coming to rest, precisely because its energy is used up. But this is a matter of opinion, and I would only ask you to concede the fact that, in each of the three hypotheses, the relation of rise and fall is perfectly apparent, and that consequently it is equally adaptable to any one of them. In other words, neither of the two beats of the simple rhythm can be called logically the "strong beat."

Let it be noted that I do not say that intensity has no place in the rhythmic synthesis: it certainly has its place, and an important one. But I wish to insist that it is not essential to the formation of *elementary* rhythm, that it is not renewed with each ictus. On the contrary, it goes far beyond all elementary rhythms, to spread itself over the whole phrase, as we shall see in due course. As Dom Mocquereau said: It provides a colourful warmth of expression which binds together even more closely the members and the phrases, and shows better than anything else the ultimate unity of the period.

Such is the only theory which accords with what I would call *Gregorian fact*; apart from it, Gregorian art, as it comes



down to us from antiquity and is revealed by the manuscripts, is inexplicable and incomprehensible. It is the only theory which enables us to interpret the tonic accent as the ancients understood it. We may add also that it is the only theory which is in accord equally with the poetry of antiquity and the music of every age. We cannot demonstrate this fact here, although it would be a conclusive and unanswerable argument for our thesis.

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### COROLLARIES

We have now completed our study of elementary rhythm, and we discover that these rhythms are naturally closed by a long sound. In every succession of short and long sounds, the long signifies the down-beat or repose of the rhythm, and consequently carries the ictus. Here we have a point which is essentially practical. At the beginning of the last paper, we asked how the rhythmic steps were to be found in so free a scheme of notation as that of Gregorian Chant. Here we have our first answer, and one of capital importance: every long note is ictic; that is to say, every dotted note, every pressus, the note preceding a quilisma etc. Here, then, is a whole series of reliable beacons to light us on our way! We shall recall this in the next paper, when we come to the practical analysis of melodies.

A further point arising out of our previous studies is that the *élan* of the short sound comes to rest and is exhausted on the long sound. In order to continue the movement, a new *élan* is required, which, in its turn, will be followed by a new falling to rest, and so on. That is to say: (i) Two ictic notes (or down-beats) can never follow one another without an intermediary note of *élan* or an up-beat; and (ii) Progress is necessarily made by successive steps, as in walking; a down-beat or rhythmic touch following each *élan* or up-beat. In other words, the ictus comes after every two or three simple beats ("two or three" because the note of repose is easily doubled). Here, then, we have already two very practical rules which flow from our foregoing studies.

### COMPOUND TIME

We have just analysed the step, each step considered individually and without reference to those around it, and we have seen that it is composed of a rise and a fall of the foot, an *élan* and a repose, an *arsis* and a *thesis*. The *thesis*, or ictus, is essentially and solely the end of the movement begun.

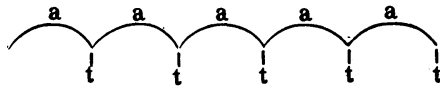
Now we know that when walking, we advance by a series of steps. But our steps are no mere material succession, they depend upon one another. The tread of the left foot is the condition for the raising of the right, because of the balance it assures, and so on. Let us rapidly examine how this succession and linking of successive movements is effected.

First of all, let us take for our example the movement of a rubber ball, which is even simpler than the motion of walking, where two feet are concerned.

Throw the rubber ball. It rises and then falls; arsis and thesis. Suppose it falls on to soft ground or into a net; the ball, after its rise, comes to rest without bouncing. Here is an elementary rhythm. The ictus is simply the end of the movement begun, and is purely thetic:



Suppose, on the contrary, the ball falls on hard ground, or on a floor. What happens? It makes the same initial movement as previously, arsis and thesis; but this time, at the point of the fall (t), it receives, on touching the ground, a fresh impetus from below which sends it up again. It continues thus bouncing until its force is spent:



In this manner, the ictus of the ball, which before was simply an arrival, an end, remains quite definitely the arrival and end of the previous bounce, but becomes at the same time the point of departure and the principle of the bounce which follows. Thus each ictus welds, as it were, two movements together: that which ends and that which begins. Moreover, the conclusion of the first is the condition for the spring of the second. There is no longer juxtaposition, but fusion of elementary rhythms. Each point of repose, each ictus is, at the same time, an end and a beginning; a thesis as regards what has gone before, and, in a certain manner, an arsis as regards what follows. On one and the same beat a close union is established between the ictus and the élan of the rhythm which follows; and this élan is entirely conditioned by the quality of the ictus from which it takes its rise. The ball will bounce higher in proportion to the force with which it strikes the ground. In a word, the rise is nothing but the prolongation and the "shadow" of the preceding ictus; in a certain manner it depends upon and is one with it.

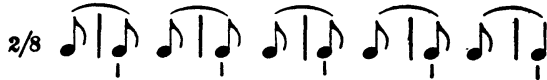
Thus, the ictus, far from being a principle of division and parcelling out, as is so often supposed, is, on the contrary, the point where rhythms are welded together, and is like the main-spring on which the continuation of the movement depends.

If we return for a moment to the comparison of a man walking, we find the same phenomenon. The placing of the foot on the ground, with consequent recovery of balance, is the condition for lifting the other foot. Each placing of the foot on the ground, although truly the end of a *step*, is so far from being the end of the *walk*, that it is the one thing which makes walking possible.

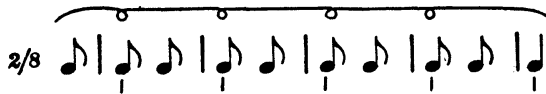
In this second synthesis, the ictus, which in the elementary rhythm was purely *thetic*, becomes at the same moment both *thetic* and *arsic*, according to the way in which it is viewed. This is what we call the *synthesis of compound time*, which is produced by the junction, on the ictus, of two elementary rhythms.

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Let us write this series of elementary rhythms in modern notation:



Written thus they are merely in juxtaposition; but if we go on to the second synthesis, in which, during the progress of the movement, the ictus of one rhythm conditions the élan of the next, we have the following arrangement:



#### J. F. & B. Rhythm of Plainsong - 2

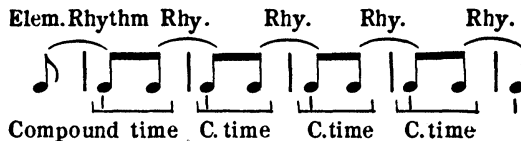
The rhythm is the same as in the preceding figure, but the whole example is bound together. In modern notation, it would be better written thus:



We have here a series of little "measures" which, in modern musical terminology, would be said to be in 2/8 time, but which Gregorian musicians call "compound time," as opposed to "simple time." Thus we see the evolution of the measure or compound time, and, at the same time, its relation to rhythm.

Let us look carefully, for it is particularly illuminating; although, let us say frankly, almost unknown to musicians, in spite of its being part of the very A B C of the musical rhythmic scale.

In the explanation which I am about to give, I wish it to be understood that when I speak of the "measure," I mean "compound time"; the little measure in  $2/8$  or  $3/8$ , the constitutive part of the full measure in  $2/4$ ,  $3/4$ ,  $6/8$  etc. The latter is no more than a development, and is a natural outcome of the full rhythm. We shall speak of this later.



From this illustration several conclusions may easily be drawn:

(a) It is the rhythm which really forms the measure, and not the converse as is often supposed.

(b) Rhythm and compound time, far from being identical, are the contrary of one another. The rhythm is astride the bar-line, while the compound time is contained within two such bars.

(c) The measure is not, as so frequently asserted, an arrangement of intensity, made up of a strong beat and a weak one, but is formed by the thesis of one rhythm (which thesis is, in itself, neither strong nor weak, but simply the end of a movement begun) and the arsis of the rhythm following.

(d) Whence it follows that the first beat of the measure is not a strong beat, but is simply a momentary repose after movement. This is a point of primary importance in the matter of rhythm.

(e) Neither is this first beat of the measure a beginning; rather is it the *end* of a preceding movement.

(f) In the same way, the last beat of the measure is not really an end; it is chiefly the start of a new rhythm; it is a fresh beginning, a new *élan* demanding a new repose after it.

(g) Hence the measure is not conclusive, but requires a further coming to rest, which is achieved on the *ictus* or first beat of the measure which follows.

(h) Hence also, it follows that in natural rhythm, every piece of music must end at the beginning of a measure and nowhere else.

(i) Thus, unlike rhythm, the measure is not a complete thing, sufficient in itself. We have already seen how elementary rhythm is a complete and finished movement, having its point of departure and its place of arrival on which it can rest; it possesses integral unity. On the other hand, the measure is not a unit, properly speaking. One cannot really define it; it is only a fictitious unity, created as required by the sequence of the rhythm, an aggregate composed of the second half of one rhythm and the first half of the rhythm which follows. It is often known as a "feminine group," which requires something to follow it.

This notion of compound time is very important, and is one of the points in connection with rhythm where mistakes are most easily made. I do not hesitate to say that most of the controversy on Gregorian rhythm, the nature of the Gregorian neum and the part played by the Latin tonic accent, would disappear, if once one would consent to make the necessary distinction between elementary rhythm and compound time.

Practical applications of compound time will be seen later; for the moment, let us finish our synthesis of rhythm.

### COMPOSITE RHYTHM

In the last paper we said that the rhythmical synthesis of the section is realized in three super-imposed schemes:

(a) Elementary rhythm, formed by the relation of a rise and a fall, with the ictus exclusively thetic.

(b) Compound time, formed by the junction of two elementary rhythms on the ictus; here the ictus is both thetic and arsic.

(c) Composite rhythm, formed by the mutual relation of the measures, in which the ictus is predominantly thetic or predominantly arsic according to the part it plays in the phrase.

We have already examined the first two syntheses, it now remains to examine the third, which can be quickly done.

Hitherto we have observed two super-imposed schemes; in the first, the sounds are grouped in twos or threes, with the consequent formation of elementary rhythms; in the second, these elementary rhythms unite to form the measure, or element of compound time. The synthesis now continues.

Let us take once again the example of a rubber ball. I throw it on to a hard surface, such as a floor. The ball, as we have seen, makes a series of bounces which steadily diminish in size as the

force of the original impulse is used up. Each bounce is at once both thetic and arsic, but more thetic than arsic, because of the steady decline of the energy of the bounces.

Suppose, on the contrary, instead of striking a lifeless floor, the ball strikes a tennis-racquet held by a living hand. It receives from the latter an impulse which causes it to rebound with greater force than it had before. This illustrates the ictus which is more arsic than thetic.

Now let us imagine that the ball falls first on to a racquet, then on to a table, and finally into the water. In the water it does not bounce at all: here we have an exclusively thetic ictus. On the table it bounces, but lifelessly: this is the ictus which is more thetic than arsic. Lastly, from the racquet it rebounds with vigour, and here we have an ictus more arsic than thetic. Nevertheless, on both the racquet and the table the ictus is at the same time both thetic and arsic (second synthesis).

Take an even clearer comparative example. Think of the leading horse in a race, within a hundred yards of the winning-post: that is to say, at the point where his rider is trying to get every atom of speed out of him. The horse covers this last hundred yards by a series of bounds; when he passes the winning-post he is going too fast to stop short, and has to gallop a further twenty yards or so before he comes to rest. Both before and after the winning-post, the horse moves by successive bounds, each made up of a spring and a coming to rest: here we have examples of the thetic ictus. Similarly, both before and after the winning-post, at each of the points where the horse's hoofs touch the turf, one leap ends and the next begins: here we have examples of the ictus with is both thetic and arsic. But before reaching the winning-post, each pace on the ground is intended to maintain and increase the movement, whereas once the post is passed, each bound tends to check the movement and finally to stop it; even different muscles are required for this. Thus, to explain the movement rhythmically, we would say that each ictus of the horse before the winning-post is arsic, and that each one after it is thetic, even though, before as after, they are all both thetic and arsic (second synthesis). A simple comparison, but clear and suggestive.

Musical rhythm also is itself an ordered movement, an hierarchical arrangement in which each element has its place and its part to play. One ictus augments the movement, another restrains it. If we wish to be faithful in our interpretation of a piece, if we wish this interpretation to be beautiful and living, we must be able to determine the function of each ictus within the whole, by a minute analysis of the complete melody. In other words, after having recognized the place of each ictus, we must

be able to assign to each its arsic or thetic nature, according to its relation with the accent or musical centre of each section. The shades of *tempo*, of intensity, of *meaning* will become apparent of themselves, be we never such amateur musicians.

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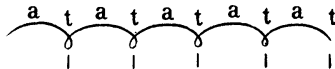
An example will make this quite clear. The arsic and thetic developments of the rhythm will be represented by chironomic curves, which correspond to the gestures of the leader of the schola.

A word, first of all, about chironomy. I have already drawn your attention more than once to the relation between musical rhythm and vital rhythm as revealed by local movement. The more one allows the body to be influenced by musical rhythm, the more chance there is that the latter will be better felt and reproduced. This is the origin of chironomy, or the science of directing a choir by gesture. In modern music, the custom is to beat time, but the modern method of beating time cannot be used to advantage with Gregorian chant, for it is too inflexible and mathematical. Something less material is required to indicate touches which are so often light and weak; something which is sufficiently supple to bend to the free succession of binary and ternary groups. Using the natural wave of the hand as a basis, Dom Mocquereau found a method of chironomy which is capable of showing, at one and the same time, both the place of each ictus and its arsic or thetic nature. His chironomy is nothing more than a plastic interpretation of musical rhythm, or the projection of melodic rhythm into space.

If we represent the isolated elementary rhythm (primary synthesis) by the following gesture:



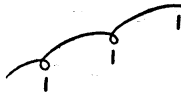
that is to say, by raising the hand in a circular movement to indicate the up-beat, and letting it fall away to the right to the place of the ictus (shown by the vertical episema), we should interpret a series of measures in compound time (second synthesis) by the following:



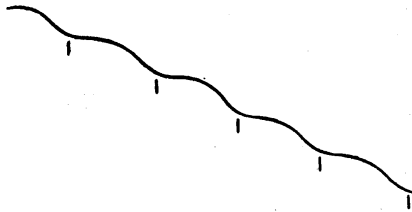
Instead of continuing the bent of the thesis indefinitely towards the right, the hand is raised again immediately after having

marked the ictus, just like the real rhythm which it represents. The ictus, be it noted, is always at the lowest point of the manual curve.

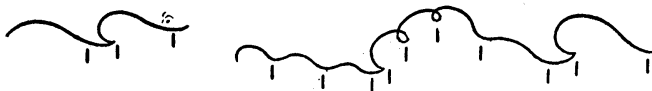
Passing to the third synthesis; if each ictus is arsic, we repeat the arsic circle of the first gesture in a progressive ascent:



If, on the contrary, each ictus is thetic, we repeat the thetic fall away of the first gesture in a progressive descent, indicating the light arsis of each elementary rhythm by a slight raising of the hand:



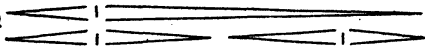
An arsic movement following on a thetic one is shown thus:




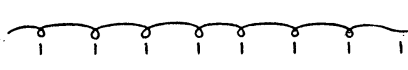
It must be remembered that in every case, and whatever the shape of the curve, *the ictus is always exactly at the lowest point of the curve.*

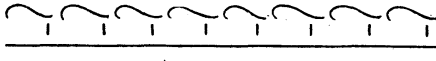
We will now apply in a practical manner the ideas we have been studying. We will write out, therefore, *Kyrie X* (Vatican Edition), with a synoptic table showing the three forms of analysis: elementary rhythm, compound time, and composite rhythm. We give the example in modern notation, on five lines, as being more convenient for showing the graphic development of the chironomic curve.




Intensity } 

3rd Synthesis  
Composite  
Rhythm  
Each ictus arsic  
or thetic. } 

2nd Synthesis  
Union of Com-  
pound time:  
Each ictus arsic  
and thetic (ex-  
cept the last) } 

1st Synthesis  
Elementary  
Rhythms  
Each ictus thetic. } 



Ky ri - e e - lé - i - son.

Here we have a visible realization of the rhythm. Observe how all the notes are united to one another, and have their *raison d'être* in the unity of the complete phrase. Grouped in pairs, they form two sections, distinct but blended into a unity by the manifest subordination of one section to the other; the second depending on the first, as shown by the lines representing intensity.

A few words of comment will suffice. The practical rules for placing the ictus and determining its arsic or thetic nature will be dealt with in the next paper.

For the primary synthesis, there are only two details which demand our attention: first, the ictus on the first note. Someone may ask: How can the *first* note be the end of a rhythm? That it really is so, we shall soon see. Let us remember once more the close connection there is between vital rhythm and musical rhythm, the latter being the resonant and musical interpretation of the former. From this it follows that since the realization of musical rhythm depends upon vital rhythm, it is the vital rhythm which always comes first. The singer is free to let his vital movement express itself by means of sound at any moment he pleases, when raising his foot or when setting it down, indifferently. If he starts to sing on the down-beat, on the ictus, he expresses musically the end of a rhythm which he had started in silence. There is nothing extraordinary in this: it is the reason why every conductor of an orchestra marks a few silent beats before beginning a piece of music, to bring the vital rhythm of every member of his orchestra into accord with his own.

The second detail to be noticed is the final *re* of *Kyrie*. It

is a crotchet, the equivalent of two quavers, of which the first would be the ictus of what has gone before, and the second the arsis of the rhythm following.

As regards intensity, the principal accent of each section is on the highest note, which here coincides with the tonic accent in each case. The general accent, or climax of the whole piece naturally coincides with the higher of the two principal accents. The rest needs no explanation.

\* \* \*

We have now completed the rhythmical synthesis in its progressive stages. It may be permissible to note, in passing, that it is verified as much in modern music as in ancient Gregorian art.

At the basis of modern music, as of all music, there is nothing but rhythm. I have already shown how compound time, musicians' "time," what I have called the "little measure" in 2/8 or 3/8, arises out of the conjunction of rhythms. I only return to this point in order to say that modern musicians, be they theorists or not, who consider "time" (that is to say, compound time or the little measure) as the first and fundamental element in rhythm, are mistaken. As we have seen, compound time is not a real unit, it is an aggregate of two fractions of rhythm. The first principle of all is elementary rhythm, the relation of rise and fall. Somebody may complain that this is simply a confusing medley of words, but perhaps it is more important than might be supposed, even from a practical point of view. But this is not the place to discuss the matter.

We come then to the "measure" in the strict sense, the full measure in 2/4, 3/4, 4/4, 6/8 etc., indicated in our modern publications by the bar of measurement, with its time-signature given at the beginning of the first line. I maintain that the measure understood thus is nothing but the reduction of the universal law of rhythm to a definite system, a system of the material order which does not always correspond with reality, and never does so to the same extent as the full synthesis which we have just been studying.

Rhythm is a complete movement which progresses step by step. Every composer, the modern as well as the ancient, is perfectly free to arrange his steps as he wishes, to make them binary or ternary at choice, and to group them in pairs, in threes, in fours, even in fives: it is for him to decide. These particular and precise rhythms arranged by the composer differ in their organization. Taken as a whole, they represent a choice made by the composer among all the possible ways in which he might express his thought. But they all depend, in the last

resort, upon the law of rhythm (succession of rise and fall), of which they are an application. Even the cases of syncopation, by their very departure from the regular flow of the rhythmic sequence, proclaim, in a peculiar manner, the universality of the rhythmic law.

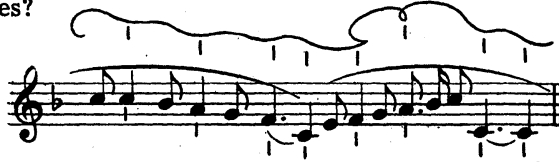
The ancients only knew rhythms properly so called; hence the admirable pliancy of their compositions. Moderns have tried to encompass their rhythms in a purely material framework, the measure, the arrangement of "beats" in twos, threes, fours, or even more. At fixed intervals, they produce a "first beat," which, moreover, they often call the "strong beat," and which is ordinarily indicated by the bar of measurement. Let us admit that the measure thus understood is frequently purely artificial in great orchestral concert music, and has little or no connection with reality. No doubt, modern musical compositions remain faithful to their system of notation, but one must admit that this is scarcely more than a matter of purely material convention. Indeed, the "bar of measurement" is little else than a simple material division, facilitating the execution of the whole piece, but having little connection with reality. As for having a succession of "strong beats" and "weak beats" we know that such an idea is completely false, since intensity has no essential part in the organization of minor rhythms. Moreover, the partisans of the "strong beat" theory are themselves often obliged to admit that in actual fact, more often than not, the "strong beat" does not exist.

Let us take an example which will expose the "trickery" and the conventionalism of this staking out of "measures" in first and second beats etc. Here is a fragment of Handel's *Pastorale*:



In what way, for example, is the C of the first measure more entitled to be called a "first beat," than the A which follows it? And in the modern method of beating time, to what rhythmic reality does the raising of the hand on that same A (indicating the beginning of the "second beat") correspond? The hand is raised on the A, during a manifest melodic and rhythmic fall away, and is brought down again on the F of the third measure, which is obviously a rising passage both melodically and rhythmically! Why, indeed? Simply because of the convention of the measure, which here has no connection with the musical reality, and is, in fact, in complete opposition to it! Would it not be more "musical," more "true," to do away with these material

divisions and the conventional beating time, and to conduct by means of the chironomy spoken of above, with its arsic and thetic curves?



This seems to show that the theory of rhythm which I have now laid before you is not, as many would have you suppose, an invention, an idle fancy produced by the brain of a dreamer; it is the actual expression of the musical reality, truly living, which both moves and delights us.

I insist once more, therefore, that in reality the modern "measure" corresponds with nothing—it is purely material. In reality, there is nothing but successive "beats" which are arsic or thetic, but neither first, second, third or fourth!

In reality, there is nothing but rhythm.

### III.

## Rhythm and Gregorian Notation

In this paper, we embark upon the practical application of the principles already laid down; for it must be remembered that all our theory has a practical end in view.

Our first need is to discover the place of the ictus in Gregorian melodies, and then to determine its nature and function. We shall leave the second of these questions to be dealt with in our last paper, after we have studied the Latin tonic accent. You may have observed that hitherto no mention has been made of word accents. This has been intentional, for the matter is a complex one, and cannot be approached satisfactorily until we are perfectly clear as regards the general notions of rhythm. Word accents will be duly dealt with, therefore, in our next two papers; in this paper, we must give our attention to the rules to be followed in order to find the place of the rhythmic ictus.

These rules flow naturally and necessarily from the principles already explained. I will first set them out in the order in which they must be applied, and will then comment on them.

In our Solesmes editions of the Church's liturgical books, the rules may be reduced to three. The rhythmic ictus is to be found:

- |   |   |
|---|---|
| 1. On all notes marked with a vertical episema: ■ | (b) The first note of a pressus: - ■ ■  |
| 2. On all lengthened notes:—                      | (c) The note preceding aquilisma: ■ ■ ■ |
| (a) Dotted notes; ■ ·                             |   |

1. On all notes marked with a vertical episema:
2. On all lengthened notes:—
  - (a) Dotted notes;
  - (b) The first note of a pressus;
  - (c) The note preceding aquilisma:
3. On the first note of each neum, *unless* it is immediately preceded or followed by another ictic note.

These rules suffice for melismatic pieces, or those in which several notes are found on a syllable; for syllabic pieces (one note to one syllable) the question is a little more complicated and will be spoken of after we have dealt with the Latin accent.

### 1. *The Vertical Episema.*

This is a little sign which, in the Solesmes editions of the Vatican liturgical books, is found under (or occasionally over) certain notes. Its one and only purpose is to indicate the note carrying the ictus, and nothing more; such was the sole motive of its invention! It is not therefore a sign of intensity, but *the sign of the rhythmic touch*. There is no difficulty here, nor need I explain the compilers' reasons for placing the signs where they have. In practice it is always the sign of the ictus, and this infallible rule has precedence over all others.

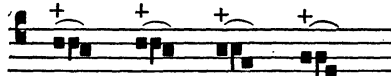
### 2. *Lengthened Notes.*

In our last paper we saw that the lengthened notes, as opposed to the ordinary single note, because it is long indicates a momentary suspension of movement, and therefore, *ipso facto*, involves the ictus. As examples of lengthened notes, I have cited the dotted note, the first note of a pressus, and the note before a quilisma. I do not here speak of the note carrying a *horizontal* episema, for this sign is not, strictly speaking, a definitely marked lengthening of the sort that demands the ictus, but rather it is the indication of a slight insistence on the note in question, like a shade of meaning or expression which may be found as well at the crest as in the hollow of a wave. Every good musician will allow that, while observing the limits of the measure, an artist has the right of interpretation, of slightly lengthening or modifying a note in order to enhance its meaning. At the base of his interpretation the set "mechanism" remains, but it is never rigidly fixed and always allows shades of expression. It is a question of style. Such is the purpose of the horizontal episema—which does not therefore involve necessarily the rhythmic ictus.

(a) *The dotted note.*—According to the practice of Solesmes, the dotted note is a doubled note. In modern musical notation a dot augments the value of a note by half; a dotted crotchet is worth a crotchet and a half. But in our Gregorian publications the dot doubles the value of a note, thus making a dotted note worth two beats. In other words, if you transcribe the ordinary Gregorian note by a quaver, the dotted note has the value of a crotchet. They are printed in this way in our publications in modern notation. This doubling the value of a note necessarily attracts the ictus.

(b) *The pressus.* I will not enter here upon the discussions aroused by this neum: my only wish is to explain to you the teaching of Solesmes. At Solesmes we understand the pressus, as such, to be a single sound of double length, and not two reiterated notes. There is everything to show that this is the true interpretation of the pressus. The only question that can be raised is whether or not, in a given case, we have in fact a pressus. Hence it is merely a matter of the kind of note. But I affirm that where we have a real pressus, we should sing it as a single sound of double length. And since I am not here concerned with specialists and paleographers, but only with cantors and those who wish to sing their best in church, I will simplify things as much as possible and merely show how a pressus may normally be recognized in ordinary Gregorian notation.

The pressus is always formed by the apposition (placing side by side) of two neums in unison, on one and the same syllable. The pure or authentic pressus is formed by *the apposition in unison of an isolated note and a clivis* (a descending neum of two notes):



The two initial notes represent a single sound of double length: not *la la sol*, but *la sol* (*la* crotchet and *sol* quaver). The tie in the above example represents the union of the two notes. This double value naturally carries the ictus at its beginning, that is to say, on the isolated note indicated by the little cross.

In a wider sense, the name and value of a pressus is given to the pair of notes on the same degree of the scale in cases of a neum of two or more notes immediately preceded by an isolated note in unison with the first; and also to the pair of notes forming the junction of two neums on the same degree of the scale. It must be remembered that the notes of a pressus are only found on one syllable of a word.



In brief, what characterizes the *pressus* is that to the eye it appears as two written notes, but to the ear there is only one sound of double length, with the ictus at its beginning; that is to say, on the first of the two notes in unison.

If someone asks why it is so written, when it would have been easy, it seems, to find another way of writing it, more in accord with the facts of sound and rhythm, I reply that the actual form used is taken from the ancient neumatic notation. Mediaeval notation was far from knowing the perfection of modern proportional notation; the means at its disposal were very insufficient. But being unable, in these short lectures, to give the neumatic examples necessary to demonstrate this point, I must leave the matter there.

(c) *The quilisma*. The *quilisma* is a jagged note, very easily recognized. It has the value of an ordinary note, but has the retrospective effect of lengthening the note or notes preceding it. This prolongation is quite distinct and consequently carries the ictus.

One should remember that although, in practice, the *quilisma* itself is not lengthened, it is not any shorter than an ordinary note. It is a common fault among choirs to reduce the *quilisma* to the value of a semi-quaver, as though to make up the time lost on the preceding lengthened note. The *quilisma* must be given its full value of one beat, and we should have no fear of "rounding it off" slightly, particularly if it is followed by a lengthened note.


If the *quilisma* is preceded by a neum of two notes, the first of the two, in Solesmes editions, is usually dotted, and consequently doubled. For this reason, there is an ictus on the first doubled note of the neum, and a second ictus on the note immediately preceding the *quilisma*, which, as we have seen, is slightly lengthened.

If I were speaking of style, I would say that the slight lengthening of the note preceding the *quilisma* must not be purely material; it is more a matter of expression than anything else, having a certain affinity with what we said about the horizontal *episema*, although the note now in question has a more definite weight.

### 3. *The First Note of the Neum.*

Someone may ask: What exactly is a neum? From the prac-

tical point of view, having no wish to enter on a scientific discussion, I will describe a neum as a group of two, three or more notes, printed to form a single figure, and intended to be sung without a break. The following are the common and simplest neums:

the clivis		the torculus	
		the climacus	
the podatus		the porrectus	
		etc.	

What is the function of the neum in the rhythmic synthesis? To answer this somewhat delicate question, we must first be quite clear about certain details involved.

First of all, is the neum constructed after the manner of an elementary rhythm (an élan followed by a coming to rest), having the ictus on the last note? Or is it, on the contrary, more like a compound beat (the coming to rest of one rhythm joined to the élan of the rhythm following), having the ictus consequently on its first note? It must necessarily be of one type or the other, but which?

Many modern "Methods" teach that the neum is a "rhythm," and then they add immediately that the rhythmic touch is on the first note—without realizing that here is a contradiction in terms. We must understand clearly, on the contrary, that *normally and usually*, the neum is constructed on the model of *compound time*, and that is why it has the ictus on its first note.

An example will make this perfectly clear. Here is the intonation of the Communion *Meménto verbi tui*, from the twentieth Sunday after Pentecost:



If you sing this word slowly, analysing the succession of rhythmic steps, you will notice that the podatus *sol-la*, on the syllable *mén*, is really composed of two parts. The first note, *sol*, is nothing but the coming to rest of the élan starting with the preceding *fa*. The second note, *la*, is the start of a new élan which comes to rest on the *la* of the last syllable. Thus we have two elementary rhythms. *Memé . . .* and *. . . énto*. It is impossible to sing it in any other way.

The podatus *sol-la* is not therefore a rhythm (i.e. a complete movement having its own beginning and end), but is an aggregate of two partial rhythms. It begins on a down-beat and ends



soaring upwards, and is therefore not conclusive but insistently requires a down-beat to follow it (the *la* of the syllable *to*). The rhythmic sequence alone brings about in practice the fusion of the two notes on *mén*, making them, as it were, depend on the *sol*. Evidently therefore, the podatus, in this case, is an element of compound time with its ictus on the first note. Looking at it from the purely rhythmic point of view, one might easily replace the two notes *sol-la* of the podatus by a double *sol*, that is, by a lengthened note, and the effect would be precisely the same. You will see, then, that the neum is nothing but the dividing up of a lengthened note, which is another reason for its normally carrying the ictus on its first note.

I say "normally" because there are exceptions to the rule, which I will now explain. Moderns readily believe that the neum was invented for the sole purpose of indicating, by its first note, the place of the rhythmic touch. In other words, according to them, our musical forefathers contrived to write their neums in such a way that the first note was always what I call the ictic note. This is a first principle among certain moderns, and it is the basis of their whole rhythmic construction.

Unfortunately for them, the reality is not quite so simple. The attentive and impartial study of mediaeval manuscripts forces us to admit that the neum is not *primarily* a sign in the rhythmic order, but *is chiefly an indication of melody*, showing the succession of high and low notes and their relation with one another. Rhythmic significance may be added, but it is not the primary reason for the neum.

It is well known that the stave, even the Gregorian stave of four lines, is of relatively recent invention. In former days there were no means of noting the exact place of each sound in the scale; all that was possible was to indicate the general line of the melody by a kind of primitive short-hand. The *virga*, which is a development of the acute accent of Latin grammarians, indicated notes which were relatively high, and the *punctum*, derived from the ancient Latin grave accent, indicated low notes. And we must not forget that these two signs, from which all the others evolved, gave no indication either of rhythm or intensity; they were purely melodic.

In spite of combining in various ways to form the neums we have already mentioned (*clivis*, *podatus* etc.), the *virga* and the *punctum* suffered no change of character or of signification; they remained chiefly signs indicating melody. The old manuscripts made use of signs and letters when a note or neum was to be lengthened, and since, as we have seen, well-defined length and weight involve the rhythmic repose, these signs and letters were truly rhythmic signs. Such indications of duration could be

placed as easily on the second or third note of a neum as on the first. Comparison shows that in the case of long passages sung on one syllable, the notes may be grouped materially in different ways in the various manuscripts, but the additional rhythmic signs not only indicate the ictic notes, but are always on the same notes, whatever the material grouping of the neums may be.

If time allowed, I could show you the remarkable agreement of these rhythmic indications in the oldest manuscripts, and the way in which they prove beyond doubt the existence of a real rhythmic tradition in the Middle Ages. By means of this tradition, the interpretation of a melody could be determined down to the smallest detail, and this interpretation was considered as coming from the Church herself, and was therefore not to be questioned; it was the "Catholic" interpretation. The development of this thesis is extremely interesting, for it helps more than anything else to develop our understanding and love of Gregorian Chant, "the sung prayer of the Church"; but it is beyond the scope of our present work.

At least this digression will confirm what we said above: that the neums were originally considered as essential melodic signs, whose rhythmic interpretation had often to be determined by the addition of further and different signs.

As a consequence of this, we find, in the liturgical books in use to-day, that the first note of a neum is not always and necessarily ictic. That is why, in giving the rules for finding the ictus, I did not follow the order usually found in "Methods of Chant." In these Methods one usually finds that the first rule given for fixing the place of the ictus is "the beginning of a neum." I have placed this rule last, because it is the least certain of all, and I wished, in my enumeration, to follow the order of certitude: notes marked with the vertical episema, lengthened notes, and *finally* the first note of a neum. You will now understand why, after giving in the third place "the first note of each neum," I added: "unless it is immediately preceded or followed by another ictic note." This restriction is explained by the fact that it is impossible to have two consecutive ictic notes, and if, for example, we find a vertical episema placed under the second note of a neum, it is an indication that the first note is not ictic, and so cannot have the rhythmic value which certain moderns wish to give it.

But, someone may ask, if the neum was no indication of rhythm originally, why do you consider it "normally" as an element of compound time, with the ictus at the beginning?

Primarily because, apart from manifest and justifiable exceptions, the neum is ordinarily a compound measure (i.e. two or more notes) in quasi-syllabic chant, such as antiphons and

pieces of the *Kyriale*. It was only in "vocalized" passages, where a succession of neums is found on a single syllable, that composers exercised full liberty in the disposition of their neums.

Furthermore, it is essential to have some objective principle of interpretation that is clear and easy. Therefore, granted that in the majority of cases the neum does *in fact* add a rhythmic meaning to its fundamental melodic signification, here is the practical rule that we observe at Solesmes in producing our editions of liturgical books: Wherever the manuscripts give some indication of rhythm which modifies the rhythmic nature of a neum, we follow such an indication, and do not hesitate to place the ictus on the second note of the neum. Wherever, on the contrary, we find no special palaeographic sign, we follow the neum and put the ictus on the first note.

I have felt obliged to dwell at some length on this point in order to remove any ambiguity and answer criticisms launched against us. I hope that I have at least made the matter clear.

To conclude, I set before you a concrete example, which shows the application of the foregoing rules. It is taken from the *Kyrie Fons bonitatis* (no. 2 in the Vatican Edition):

The image shows a musical staff with 15 numbered notes. Above the staff, the numbers 1 through 15 are placed above each note. The notes are: 1 (quarter), 2 (quarter), 3 (quarter), 4 (quarter with vertical episema), 5 (quarter with dotted note), 6 (quarter with pressus), 7 (quarter with vertical episema), 8 (quarter with dotted note), 9 (quarter with pressus), 10 (quarter), 11 (quarter), 12 (quarter with vertical episema), 13 (quarter), 14 (quarter), 15 (quarter). Below the staff, the text 'Ky-ri-e' is aligned under notes 1-6, and 'e - lé - i - son' is aligned under notes 7-15.

Ictus 4, 7, 11, 12, 14—vertical episema; 1st rule.

Ictus 2, 5, 8, 15—dotted note; 2nd rule (a).

Ictus 6, 9—pressus; 2nd rule (b).

Ictus 1, 3, 10, 13—beginning of neum; 3rd rule.

It must be remembered that the quarter-bar is here only a rhythmic punctuation, and is not a sign for any slackening of movement. A slight rest is made only at the full bar at the end of the phrase.

\*  
\*   \*  
\*

One is sometimes asked for explanations of certain special neums. Evidently there is much which might be said, but because of the impossibility of multiplying examples, without which it is difficult to be perfectly clear, I must limit myself to a few words on the strophicus and the salicus.

If we open a book of the chant and look at any ornate piece, such as a Gradual, an Alleluia, or an Offertory, we notice the frequent recurrence of a series of notes placed side by side in unison. These are examples of either the *pressus* or the *strophicus*.

I have already said enough about the *pressus*, and will simply remind you that it is formed by *two* notes in apposition, which must be sung as one sound of double length. The *strophicus* also is composed of either two (*distropha*) or three (*tristropha*) notes in unison. For the sake of simplicity, they are printed in the Vatican Edition as ordinary square notes without a stem, and are thus easily distinguished from a *pressus*, which always includes at least one note with a stem.

Ideally speaking, according to the rules of the golden age of plain chant, a very slight repercussion should be made on each note of a *strophicus*. But since this is too difficult in practice, it is better to make the repercussion simply on the first note of each *strophicus* and on the first note of the *neum* which follows it in unison. So much at least is necessary; otherwise, especially in passages where several *strophicus* follow one another, we are reduced to making one long sound which loses all idea of rhythmic movement, and makes it very improbable that all the voices in the choir will begin the next *neum* together. But a repercussion on the first note is sufficient to maintain the sense of rhythm and gives great lightness to the chant.

Two good examples of this are: the word *Tharsis* in the Offertory *Reges Tharsis* of the feast of the Epiphany; and the beginning of the Offertory *Filiae regum* from the Common of Virgins.

It is most important that the repercussion should be always gentle and light, and, as Dom Mocquereau used to say: "un renflement doux du son dans l'unique pousée d'air," a slight swelling of the sound on one and the same breath.

The *bivirga* and *trivirga* are like the *distropha* and *tristropha* respectively, but the square notes are replaced by *virgas* (notes with a stem). These also require a repercussion, ideally on all the notes, but at least on the first of each group, but this time the repercussion should be a little more stressed and dwelt upon.

The *salicus*, like the *scandicus*, is an ascending *neum* of three or more notes. The *ictus* is on the second note in a *salicus* composed of three notes, and on the last note but one in a *salicus* composed of more than three notes. The *ictic* note is slightly lengthened, as though it carried a horizontal *episema*. In short, the *salicus*, like the *quilisma* and the horizontal *episema*, is a sign of expression which should be rendered, not in a mechanical manner, but intelligently and in a way denoting an increase of warmth and life.

In the rhythmical Solesmes editions of the chant, the *salicus* is in practice distinguished from the *scandicus* by the vertical *episema* placed under the second note, or the last but one. At Solesmes we have adopted the following rule for doubtful cases.

In practice we only treat an ascending neum as a salicus if three conditions are present: (a) There must be at least three rising notes; (b) ending with a podatus; (c) under which is placed a vertical episema. If one of these conditions is wanting we do not treat the neum as a salicus, that is to say, we do not lengthen the second note. Anybody can adopt this rule who likes; it may not be scientific, but it has the advantage of being simple and clear.

## IV.

## Rhythm and the Latin Tonic Accent

We must now turn our attention to the question of the Latin word and its accentuation, which has a most important bearing not only upon the interpretation, but also upon the composition of Gregorian melodies. I have purposely reserved this intricate matter until now because it was necessary first to be perfectly clear regarding rhythm itself. Now that we have thoroughly grasped and committed to memory all the principles of pure rhythm contained in the earlier papers, we are in a position to understand the rhythm of the Latin word.

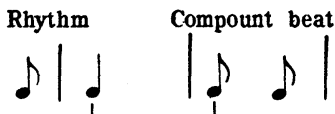
Following our usual method, we will proceed by stages, passing from what is simple to what is more complex. Therefore, before studying the Latin word in its melodic setting or even in the synthesis of the sentence of which it is an element, we shall study it *in itself*, in *isolation*, apart from all connection with the context.

## THE ISOLATED LATIN WORD

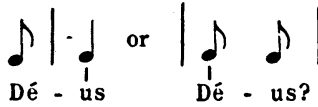
Wherein lies the precise rhythm of the Latin word?

We have already said that at the base of the rhythmic synthesis we find the elementary rhythm, made up of an élan and a coming to rest. Elementary rhythms, in their turn, by meeting one another on the ictus, produce a new aggregate, the element of compound time or the compound beat, which is made up of the fall of the first rhythm and the élan of the second.

The elementary rhythm is astride the measure and ends on the ictus and is therefore conclusive; the compound beat, on the contrary, begins on the ictus, and is therefore not conclusive:



On which of these two types is the isolated Latin word to be modelled? It must have the form of one or the other. Take, for example, the word *Déus*; is it



Most "Methods" will tell you that the Latin word is like a compound beat, with its accent on the down-beat or ictus. We contend, on the contrary, that the Latin word is constructed after the type of elementary rhythm, that is to say, *its accent is arsic, and it ends on the ictus.*

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Before setting out our own contention, let us dismiss the only two arguments that favour the modern theory of the accent on the down-beat. If the tonic accent is necessarily on the down-beat, it must be so either because of the intensity of the accent, or because of the gravity of the ictus.

(a) The Latin tonic accent is really intensive, as we shall see later on, though only slightly so. If the rhythmic ictus, the beginning of the compound beat, were really a "strong beat," as held by the moderns, the accent would have to coincide with the ictus, since the strength of the accent would necessarily ally itself with the strength of the rhythm.

But we have shown at some length in the previous papers that the ictus is by no means a strong beat, that in itself it has no essential connection with intensity, but is solely concerned with movement; it is a coming to rest and the end of a movement already begun. Therefore, since the ictus is not by nature any stronger than the up-beat, it cannot on this account attract the strength of the accent to itself. Since the two rhythmic elements of élan and repose are equally adaptable to strength or weakness, neither of them attracts the tonic accent more than the other by reason of intensity; they are indifferent to it. Thus the first argument of the moderns falls to the ground.

(b) The rhythmic ictus, the repose of the rhythm, really has a certain gravity. It tends to a slight lengthening, in the sense that in a sequence of alternate short and long sounds, the long sound momentarily suspends the movement, and so attracts the ictus. This we have already seen. If, therefore, the Latin tonic accent were of itself long and heavy, it would necessarily coin-

cide with the ictus, which has a certain natural stress, and so would attract the supposed stress of the word accent.

But, as we shall see presently, the Latin accent is by no means long and heavy, but, on the contrary, short and light. Hence the argument from the gravity of the ictus is as unsatisfactory as the other.

Thus the two arguments for the theory that the accent must occur on the down-beat are without foundation and prove nothing. And I do not see what other argument can be produced.

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We come then to our own theory, which normally places the rhythmic ictus on the last syllable of the isolated word.

Let us recall the nature of a rhythm; that it is one single and complete movement, starting with an *élan* and ending with a fall to rest, or, in the plainest possible terms, a movement that begins at the beginning and ends at the end. We have already seen that it is precisely this relation of *élan* to repose, of a beginning to an end, which blends the two parts of the movement into a unity, instead of leaving them merely side by side.

What is a word? If we may believe the dictionary, a word is the symbol of an idea. This amounts to saying that the word, if composed of several syllables as is usually the case, is not a mere sequence of syllables, but a *unity*, a complete and ordered movement, which starts from the first syllable and ends with the last. This unity of movement is an indispensable condition, if the group of syllables which we call the word is to express an idea.

If I wish, for example, to express in Latin the idea of Rome by the word *Roma*, it would be futile for me to say *Ro* to-day and *ma* to-morrow! My two syllables must be pronounced in a single movement.

Thus the word is a whole, a complete movement. As such, it is, in the fullest sense, a "rhythm," and behaves like any other rhythm. Consequently, it must start with an *élan* and come to rest on its final syllable; it must begin at the beginning and end at the end! And since the rhythmic ictus is nothing but the end of a movement begun, it must coincide, not with the accent—which is always on the penultimate or antepenultimate syllable—but with the final syllable. We see therefore that the simple rhythm is the model on which the Latin word is built, having its accent at the *élan* and its final syllable at the fall to rest.

I am happy to point out to you that this teaching of Dom Mocquereau merely takes up and develops the most authentic teaching of Dom Pothier. It is a futile waste of time to try to make out that they were not in agreement on this matter. The

whole of the second volume of the *Nombre Musical* of Dom Mocquereau is nothing but an enlightening commentary on a passage of Dom Pothier's *Mémoires Grégoriennes*. Dom Pothier there makes use of the very word *Roma* in order to show that if one wishes to give expression to the idea of Rome, the two syllables must be pronounced in a single movement, the accented syllable being at the élan of the rhythm and the final syllable at the coming to rest; and from this he draws the conclusion that the accent represents the arsis and the final syllable the thesis. And, as though to guard against his being misunderstood, he goes on at once to explain: "By arsis I mean the moment when one raises the foot, and by thesis the moment when one replaces it on the ground." Thus Dom Pothier here uses the words arsis and thesis, not in the sense of intensity, but clearly in the sense of "movement," giving them precisely the same meaning as we do ourselves.

In other words, Dom Pothier distinctly teaches, as we do, that in the isolated Latin word, the syllable that normally carries the ictus is not the accented one but the final one. It would be a simple matter to show that this was always the authentic opinion of Dom Pothier, in spite of the wealth of sophisms collected in later times in order to oppose him to Dom Mocquereau. But I have already said enough to show that in our theory concerning the rhythm of the Latin word, we are by no means revolutionaries, as has often been said, but we faithfully maintain the true Solesmes tradition.

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We must now enter more deeply into our study of this question, and show how philology itself helps us, by fully confirming the argument which we have just set forth, and which we may take as an *a priori* proof. Afterwards we shall see how the impartial analysis of Gregorian melody reaches the same conclusion, and so makes its vindication complete.

Let us carefully examine, one after another, the essential qualities of the Latin accent, first in the classical era, and then in the post-classical era, which was the time of the composition of Gregorian chant. If these essential qualities of the Latin accent accord better with the qualities of the rhythmic arsis than with those of the thesis, this will show that there is a special affinity, and a kind of sympathy between the accent and the arsis. Similarly, if the essential qualities of the final syllable of the word are the same as those that are characteristic of the thesis, it will indicate a like affinity and sympathy between the thesis and the final syllable of the word. Thus our contention will be proved.



Let us once again make the distinctions with which we are already familiar; and first of all let us be quite clear as to the characteristics of the rhythmic arsis, from the threefold point of view of melody, intensity, and quantity.

(a) From the melodic standpoint there is nothing really decisive; the arsis and the thesis are equally adaptable to high notes or to low ones. Nevertheless, the rhythmic élan, precisely because it is élan, fits more naturally a melodic rise; and the thetic repose, a melodic fall.

(b) Much of the same may be said as regards intensity, which can be found equally well on the arsis or the thesis, although, as we have seen, intensity is perhaps slightly more natural to the arsis. It is only a grave or incisive expression of intensity that is naturally inclined to be thetic, by reason of its extra weight.

(c) But when we consider the quantitative point of view, we at once find something clear and characteristic. We have said already many times that the arsic and the thetic notes can be equal as regards quantity, but that if one of a pair of notes is long, the long note is inevitably thetic, since rhythm is the relation of an élan to a coming to rest, of a light beat to one more stressed.

If, therefore, the Latin accent falls habitually on a low note of the melody; if, as regards intensity, it is heavy; and if it is characteristically long; then it must be thetic and must carry the ictus, and the moderns are right. But if, on the contrary, the Latin accent is melodically high, of a delicate intensity, and essentially short and light, then it is arsic; and the thetic repose, together with the ictus, will be on the final syllable.

All that remains to be done, therefore, is to sum up shortly the history of the Latin language, and appeal to the testimony of Latin grammarians, both of the classical period and of the post-classical period. Testimony of this sort can be relied upon as impartial; for none will suspect it of having been influenced by Dom Mocquereau, and written as propaganda!

We could well write a book on this subject if we would be really complete; here we can only attempt a brief summary, but it shall be as faithful as possible.

(a) *The Melodic Order*. It is historically certain that in classical times the Latin tonic accent was a phenomenon of the melodic and not of the intensive order. It was essentially a melodic rise and lifted its syllable above its neighbours, producing the effect of a high pitched syllable followed by a low one. Among all its material qualities, the elevation of the accent was its first and fundamental character, which gave it its accentuation and from which the other qualities flowed. *Accentus acutus*. So far

was this the case, that the very word took its name from this quality; for in Latin, *accentus* comes from *ad cantum*, and in Greek *prosodia* shows a like etymological evolution. Therefore, in the golden age of the language, the Latin tonic accent was not a strong syllable as opposed to a weak one, but a *high syllable* (*accentus acutus*) as opposed to a low one (*accentus gravis*).

In other words, Latins did not pronounce their language as we do, *recto tono*, but they "sang" it (as one still hears it done in Mediterranean countries), and placed the accents always at the peaks of the melody.

This melodic character of the Latin tonic accent lasted until the disappearance of Latin as a living language, and the formation of the Romance tongues in the ninth and tenth centuries. At the time of the composition of the great Gregorian melodies (the age especially interesting to us), the high melodic accent was still in full vigour. This is attested by the grammarians of that day, who speak of their custom of insisting upon the elevation of the accent. We shall see presently that the witness of Gregorian melodies themselves is equally decisive.

Thus, the tonic accent was undoubtedly acute, that is to say, melodically high. I said just now that this is not an absolute proof of its arsic character, but at least it is a presumption in its favour, if indeed it is true that the rhythmic élan is most naturally made apparent by a melodic rise, synonymous with élan, and life, and effort.

(b) *The Intensive Order*. In the classical age, was the Latin tonic accent a strong one? If we may believe the best accredited philological hypothesis of to-day, we must say no to that question. Even if indeed it had a little intensity, it must have been very light, for no grammarian of the period makes the least allusion to it. Certain serious philologists hold that, in primitive times, it was not the accented syllable of the Latin word that was the strongest, but the first syllable; the "accent" was only made apparent by a melodic rise. Thus in the word *Redemptor*, the strong syllable was the first one, *Re*; the second syllable, carrying the accent, was simply sung higher than its neighbours.

However strange this may appear to us, it seems that such was classical Latin usage. We readily admit that this may come as a shock to moderns, who wish to strike every tonic accent as with a sledge-hammer! It is not until the sixth century that we find a grammarian using an expression that might lend itself to the theory of the intensive accent, and even then we are not bound to give his words such an interpretation.

Furthermore, it is quite certain that classical Latin poetry was exclusively quantitative and never intensive; by which I

mean that it was made up, not of an arrangement of strong and weak syllables, but of an arrangement of long and short syllables, corresponding with the speech of the day, which likewise depended upon the distinction between long and short syllables.

The custom of speaking Latin quantitatively was, perhaps, reserved to the educated classes, and was not that of the people at large. Hence it came about that this differentiation of long and short syllables, which was somewhat artificial in any case, tended to disappear. In the first centuries of the Christian era, we find the syllables gradually becoming equal, and at the end of three or four centuries the quantity of all syllables was approximately the same.

But as the variable quantity of syllables progressively disappeared, the distinguishing element of rhythm also disappeared, and it became necessary to introduce another differentiating element capable of expressing rhythm; this was intensity. In proportion to the disappearance of quantity, the melodic element of the accent, freed from all restrictions, produced little by little an increase of intensity; so that the accent, in no way intensive in the classical age, had become moderately so by the Gregorian age (fifth and sixth centuries).

I have said "moderately so," and I insist upon this. The intensity of the accent went on increasing in the course of time, until it became so heavy and material that it finished, in the Middle Ages, by definitely corrupting the Latin language, and by giving birth to the Romance tongues. By then the accent had become so strong, ponderous and material, that the neighbouring weak syllables had imperceptibly disappeared; first the penultimate and then the final syllable itself: *Amabilis* became *aimable*, and *Dominus* became *Domnus*, and finally *Dom*.

There is however a conclusive proof that at the period in which we are specially interested—that of the composition of Gregorian melodies—the Latin accent had not yet become ponderous and material. For in the ecclesiastical chant of that date, not only are the penultimate and final syllables intact, but they are the very syllables frequently enriched with many neums, whereas the tonic accent is light and often has only a single note. To give but one well-known example: In the Introit of the Requiem Mass, the word *Domine* at the end of the second section, is so far from being contracted into *Domne*, that the weak penultimate syllable calmly takes a neum of six notes, while the accent has only one. Moreover, this rule of composition was obeyed in adapting melodies to other words. When our forefathers had to adapt a spondaic cadence to a dactylic ending, they usually placed the neum on the weak penultimate syllable. Yet when Dom Pothier began to revive the authentic and traditional form

of Gregorian melodies, fifty years ago, his observance of this rule caused no little scandal!

We see therefore that the Gregorian Latin accent had only a very light intensity, a mere shade, which far from diminishing its arsic character, tended rather to bring it more into evidence. Dom Pothier himself judged that the most natural syllable for neumatic ornamentation was the final one, precisely because it was essentially thetic.

(c) *The Quantitative Order.* In the matter with which we are now concerned, this is the most important of all the orders. If the Latin tonic accent were long, it would certainly be thetic. If, on the contrary, it is short and light, it is certainly arsic. And there is not the least doubt that brevity and lightness are, with its acuity, the essential qualities of the Latin accent.

No author previous to the twelfth century makes the accent long. "A very significant silence," Dom Mocquereau remarks, "especially if we remember how important was quantity in the classical era." But besides this, we have the formal witness of a grammarian of the classical age, Varro (116—27 B.C.), who says: "*Acuta exilior, et brevior, et omni modo minor est quam gravis*—the acute accent is slighter, briefer, and in every respect less considerable than the grave accent." This may well be disconcerting to our modern ideas, but we must believe that Varro was in as good a position to judge the matter as we are.

Another significant fact is that the accent as such was so little a matter of length, that in the classical age, when speech was quantitative (that is, by long and short syllables), the accent, when it fell on a long syllable, influenced only half of it. I will explain. A long syllable equalled two short ones; when the tonic accent fell on a long syllable, as in *Roma*, the melodic rise only lasted for half the long syllable, and on the other half, the voice fell to the lower pitch. It is quite evident therefore that the acute accent was short.

The considerable collection of Gregorian melodies of the best period that we possess to-day, prove beyond doubt that this brevity of accent was still the rule at the date of their composition; for we find, as I said above, numerous accents which have only one note and are as light as they could possibly be.

If we now sum up what we have said, we find that in the classical age, the Latin accent was acute, short, and had little or no intensity. In the Gregorian era, it remained acute and short as before, and had acquired a slight intensity. Now brevity is the most characteristic quality of the rhythmic arsis, which is in marked accord with a melodic rise and a slight intensity. Thus, in the little rhythm formed by the Latin word, the accent inevitably plays the part of élan and arsis, leaving the fall to rest,

which necessarily follows every élan, to the final syllable. Hence we reach the same conclusion as that to which we were led by the idea of the intrinsic unity of the word.

We see therefore that the Latin word is a rhythm produced by the relation of élan and repose, between the accent and the final syllable. It overlaps two compound beats and is astride the bar of measurement. It is a perfect application of the important rhythmic "law of overlapping," of which we have spoken before, and which, according to M. Maurice Emmanuel, is the rhythmic law *par excellence*, and alone can explain Greek poetry. I would add that the same law is alone capable of explaining Latin poetry, with its system of elisions and caesura. The caesura is nothing else than the necessary placing, at the beginning of certain feet, of the final syllable of a word, and is thus an unanswerable proof of the essentially rhythmic character of the Latin word, and the non-intensive character of the beginning of a foot, or element of compound time (compound beat). The theory of rhythm which I have here laid before you is the only one capable of explaining the composition of ancient poetry, and of enabling us to declaim Greek or Latin verse. But I will not dwell further on this point, despite its interest and peculiar significance.

Let us retain at least this conclusion from what has been said, one which is as essentially practical for Latin diction as for Georgian interpretation:

Whenever you produce the effect of élan and repose between the accent of the Latin word and its final syllable, you have accentuated it most successfully, however little intensity you may have given to the accent.

Whenever, on the contrary, you fail to produce this effect, you have failed to accentuate properly, even though you may have given the accent considerable intensity. The stronger and heavier the intensity given to the accent, the more it isolates the syllables that follow, and as a consequence, the more it destroys the unity which is the supreme object of accentuation. The accent is the soul of the word, the *anima vocis*, as our forefathers called it, which gives words their cohesion and their life. It has a certain strength, it is true, but a strength which is gentle and half-spiritual.

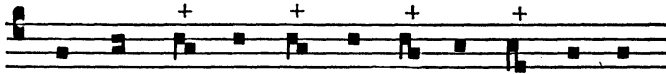
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If we now had the leisure to examine the Gregorian repertoire together, you could not fail to see how perfectly it confirms all that we have just said of the quality of the accent. But I must leave you the task of doing this for yourselves. Anyone who does so, will see that the accent has a decided preference for melodic elevation and lightness. No doubt this is not always

the case. We are still studying the isolated word; but each individual word is part of a whole, it exists with a view to the whole, and the melody too has its rights; we will speak of this in our next paper. Meanwhile, it is interesting to notice how, even while subject to the superior laws of the phrase, words often keep their natural character and personality. This is a proof that we are here faced with a truly fundamental law of the Latin language.

By way of illustration, I give what I might well call the classic example, so often has it been quoted; but it is so clear and so undeniable for anybody who truly has musical sense, that I feel justified in choosing it once more. It is the beginning of the Communion *Memento verbi tui*, of the twentieth Sunday after Pentecost. First of all I give you the melody without the words:



The musical rhythm of this section is clear, obvious, and undeniable: after the élan of the first podatus, we have a full and majestic fall to rest in groups of three, like the glide of a bird to earth. The melodic descent, the anticipations etc., all show that the rhythmic beat (ictus) falls on the first note of each clivis, that I have marked with a little cross. Any other rhythmic arrangement would result in syncopation, and would be disastrous to this graceful melody. We next see how the words are adapted to the melodic scheme:



Notice how each ictus coincides, not with the tonic accent, as the moderns with their favourite theory would wish, but with the final syllables of the words. The accents of the last four words are each on an isolated note, the third note of a ternary group; that is to say, on the arsis of the elementary rhythm. In other words, the accent is on the up-beat, and the final syllable on the ictus.

How is this to be sung? Must we, on the pretext of "marking the accent" in the modern way, upset the melodic rhythm which was so clearly recognized above? If we try, we shall see that syncopation is more in evidence than if there were no words, and that the graceful undulating cadence is reduced to a succession of

heavy dragging steps. No more legato, no more unity of the line; everything is in pieces.

Suppose, on the other hand, that we pay due respect to the melodic rhythm. We now alight gently on the first note of each clivis, that is to say, on the final syllable of each word, and lift up the accent gracefully, rounding it off and letting it glide smoothly, until the descent on the final syllable. In this manner, life and beauty appear once more, and the charming undulating line is more surely traced than ever. Indeed, since the words overlap the compound beats, all are welded together into a neatly formed chain of inseparable links. The unity of the whole is perfect. This becomes even more evident if we write it with the bars of measurement:



See what life is given by the accents on the up-beat! "The Latin tonic accent is a luminous point which loves to appear at the summit of phrases," wrote M. Louis Laloy, the present general secretary of the Opera in Paris, when lately he learnt what was the teaching of Solesmes concerning the accent. This recalls the words of Dom Mocquereau: "There is no need to strike the accents in order to emphasize them; on the contrary, they should shine down on the whole phrase and light it up from above. If they are struck sharply, all their charm disappears, they become material, heavy, grovelling."

A final remark will show how this interpretation, by preserving the "melodic line," assures the unity of each word. Each word, with its élan on the accent and its fall to rest on the final syllable, forms a little rhythm which is verbal and musical, a parabola which closely unites the two syllables in a single movement, a single whole. On the other hand, the accent on the down-beat breaks up the syllables, destroys each word, and ruins both melody and text. Here then is our section as understood by our analysis:



And, whatever anyone may say, this is no exception in the Gregorian repertoire. You will not find many antiphons that have not one or several accents on the up-beat. We are here in the

presence of a fact truly characteristic of Gregorian art. We will return to the subject in our next paper.

## V.

### Rhythm and the Latin Tonic Accent

*(continued)*

We will now finish what we were saying in the last paper about the rhythm of the Latin word, and endeavour to clear up any doubts and obscurities. We must not forget that all that we have said hitherto concerned the rhythm of the isolated word. We shall see presently that both text and melody can, in certain ways, modify a word's natural character, and this is frequently the case. In order to appreciate these modifications at their true value, we must be quite clear about the normal character of the word itself, and what gives it its being and its unity. So then, before starting on the synthesis of the verbal and musical phrase, I will add a few remarks on the isolated word.

We saw in the last paper that the Latin word is a true "rhythm," formed by the union and the fusion of all the syllables, which the tonic accent as it were gathers round itself. In this rhythm the accent coincides with the arsis, and the final syllable with the thesis or ictus. (It is well to note that as a result of this, a change of chord in the accompaniment is normally much better made at the final syllable than at the accent.) This point is of the first importance, if we are ever to understand Gregorian rhythm. Such was the teaching of Dom Pothier and Dom Mocquereau, and I need hardly say that at Solesmes to-day we maintain their tradition faithfully, and are, indeed, more attached to it than ever.

In order to establish my argument scientifically, though necessarily briefly, I tried to show you what were the material qualities of the Latin tonic accent in the classical age, and in the days of Gregorian composition. We saw that in the classical age the accent was exclusively melodic and short, with practically no intensity. In the post-classical or Gregorian epoch the accent remained melodic and short as before, but had become slightly intensified. We further saw how these three qualities of higher pitch, gentle intensity, and above all, brevity, agree perfectly with the qualities natural to the rhythmic arsis, while the end of the Latin word, which was relatively low, and weak, was more in accord with the thesis or ictus.

I contend that we have here the key to Latin accentuation. At bottom, the true characteristic of the Latin accent was its rhythmic élan; and the proof of this is found in the fact that it



never, in any circumstances whatever, fell on the final syllable of a word.

From the point of view of accentuation, all Latin words are reducible to two types only, determined by questions of metre into which there is no need to enter here. These two types are:

(a) Paroxytonic words, otherwise called spondaic, in which the accent falls on the penultimate syllable, the last but one; for example: Déus.

(b) Proparoxytonic words, otherwise called dactylic, in which the accent falls on the antepenultimate, or last syllable but two, as in *Dóminus, médio*.

These are the only types that exist. Accentuated monosyllables lose their accent when they conclude a phrase or sentence.

If anyone asks the reason for this accentuation, the answer lies precisely in the fact that the Latin accent, in every age, was essentially an élan: such was its nature, which constituted it an accent. Now, since every élan necessarily required to be followed by a fall to rest, the tonic accent, being the élan of the word, could not possibly occur on the last syllable, but required that at least one syllable of repose should follow it.

Everything now becomes clear: the rhythmic élan of the accent finds natural expression in a melodic élan, that is, in a brief and light melodic rise. This, in the course of time, introduced a certain intensity, since a melodic rise nearly always involves a gradual crescendo.

As a clear summary of all that has been said concerning the relation between the Latin accent and the ictus (which question is at the base of all the Solesmes teaching concerning rhythm), we may affirm:

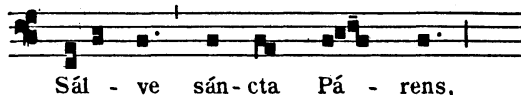
On the one hand, the rhythmic ictus is essentially the repose following an élan.

On the other hand, the Latin tonic accent is essentially an élan that requires a repose to follow it.

Therefore, if on the one hand the ictus is the coming to rest of an élan, and on the other the accent is an élan requiring a subsequent repose, it is clear that the accent and the ictus do not necessarily coincide, and even that the less they coincide the better, especially in spondaic words, as we shall see presently.

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In our last paper we analysed the almost syllabic opening section of the Communion *Memento verbi tui*. Let us look at a piece that is a little more ornate, in which the melody may claim a greater freedom. It is the beginning of the Introit *Salve sancta parens*, from the votive Mass of Our Lady:



This example is useful for several reasons. First, I wish to draw your attention simply to the word *sancta*, of the spondaic type. The clivis on *-cta* attracts the ictus, according to the third of the practical rules previously given. Notice in passing, how this clivis, with its descending melody, coincides with the final syllable of a word, which normally should be relatively low. The syllable *-cta* is therefore thetic, and the accentuated syllable *san-*, which precedes it, on a single note, must necessarily be arsic, on the upbeat. We have thus a perfect example of the rhythm of the word, such as we have recognized it already. In singing this word, do you not feel how the short élan *san-* that falls to rest on the final *-cta*, joins the two syllables indissolubly? Is it not evident that this little "rhythmic parabola," which springs from one syllable and alights on the other, makes of the two one single entity, complete, living, and articulated?

But this accent on the up-beat does even more. Not only does it connect intimately the two syllables of *sancta*, but it assures the unity and cohesion of the whole of this member of the phrase.

We have two sections: *Salve* and *sancta parens*, and the danger is that, in singing, we may place them merely side by side and break up the melodic line into a series of little fragments with no unifying bond between them—a common fault in nearly every choir. The accent on the up-beat considerably lessens this danger. If someone asks "how?" the answer is simple enough; I need only remind you of the formation of the rhythmic synthesis, as described in the previous papers. The syllable *-ve* of *Salve*, carrying an ictus, is both the end of the word and of the first section; the next ictus is on the syllable *-cta*, the end of a word in the second section; the accentuated syllable *san-*, on the up-beat, belongs to a ternary group (*Salve san(cta)*), of which it is the third element. Thus, if this syllable *san-* is really the beginning of the second section, it is no less truly a part of the compound beat which ends the first; it belongs, in a way, to both, and welds them closely together. To make use of a somewhat material but descriptive comparison, the two syllables *-ve* and *-cta* are like two columns of a viaduct, and the *san-* is the arch that joins them together.

Suppose for a moment that the single note on *san-* was replaced by a podatus, such as *ré-mi*, which would be by no means abnormal, and is, in fact, fairly frequent in Gregorian art.

The podatus would naturally take the ictus. Do you feel how the two sections would be less bound together, without the "bridge span" to unite them; and how they would be liable to remain simply in juxtaposition? I take this opportunity to offer a small piece of advice as regards "style." The most important element in interpretation is to make sure of the sequence, the sense of the phrase; therefore, whenever, after a quarter-bar or a half-bar, you can conveniently leave a note on the up-beat before the next ictus, you should do so without hesitation. This non-ictic note will assure the junction of the two members, and will thus help you to escape the danger of disintegration which is present at the end of every incise or member.

If the true rhythm of the Latin word is really what we have described at such length, it will clearly be as evident in purely syllabic chant as in chant that is more or less ornate. In syllabic chant (one note for each syllable), there are no neums to guide us; but this does not mean that we are deprived of all indication of rhythm. If we have no neums, we have at least melody and text, and these are sufficient. In the Latin text alone each word has an accent and a final syllable, and this at once suggests a rhythm that we should always do well to follow, unless there is some objection of a melodic nature, of which I will speak later.

Here is an example taken from the beautiful antiphon *Tribus miraculis*, from the second Vespers of the Epiphany:



Hó-di e in Jordáne a Jo-án-ne Christus bapti-zá-ri vó-lu-it,

I have marked the rhythm in accordance with the word-endings; they are all ictic, and every accent<sup>1</sup> is on the up-beat. If we sing it, we cannot fail to be delighted by the peculiar charm of the rhythmic swing, the lightness and the flight of both melody and text. If, on the other hand, we place every ictus on an accent, all we have left is a series of words badly pronounced which seem to have little connection with each other. I do not believe that any real musician who "feels" music and for whom music is a living language, can fail to appreciate the difference between these two rhythms, and the infinite superiority of the former.

Most certainly this way of singing forces us to lighten the accent, and to spiritualize it, so to speak. But why not? If we

<sup>1</sup> The melody of *Baptizári* is not syllabic, and so has no bearing on the present example.

make our chant less material, will either art or prayer lose anything by that?

Here again we see how perfectly the continuity of the line and the unity of the phrase are assured by the non-ictic note on the syllable *in* (*Jordáne*), and on the accent *Chri-(stus)*.

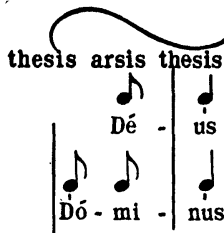
Be that as it may, we must not fail to appreciate the dignity of this phrase, and see how our forefathers had need of only a few notes in order to make something beautiful. Here is rhythm indeed!

\*  
\*       \*  
\*       \*

Before leaving the subject of the rhythm of the isolated word, and at the risk of complicating matters, I must add an important detail without which my explanation would not be complete. Hitherto, in defining the rhythm of the single word, I have said that the final syllable carries the ictus and that the accent is *arsic*. I have used the word *arsis* more often than "up-beat," and the reason is as follows. We saw, at the beginning of this paper, that as regards accentuation, or the place of the accent, Latin words are divided into two categories:

Spondees, with the accent on the penultimate syllable: *Déus*.

Dactyls, with the accent on the antepenultimate syllable: *Dóminus*. From the point of view of elementary rhythm, these two types of differently accentuated words are given a different rhythm. In each case, of course, the ictus is on the final syllable. But in the spondee, the tonic accent, which is on the penultimate syllable, and consequently immediately preceding the ictus, is necessarily *arsic* and on the up-beat of the elementary rhythm. In the dactyl, on the contrary, the weak penultimate syllable which precedes the ictus is on the up-beat, and the accent is carried back to the previous ictus. The following illustration makes this clear:



Here we see the isolated spondaic word *Déus* with its accent on the up-beat, and its final syllable on the ictus; while the

dactyl, *Dóminus*, has an ictus on its accent and on its final syllable.

The difficulty is merely apparent. We have seen that every ictus,thetic in the first synthesis, can and must be either arsic or thetic in the third synthesis. In the dactyl, the arsic influence, which is, I contend, the essential quality of the Latin accent, immediately confers an arsic character on the first ictus, as shown by the chironomic curve in the above illustration. Even a merely cursory study of the Gregorian repertoire shows that, as a matter of fact, apart from cadences, an ictus which coincides with the accent of a dactyl is nearly always arsic. If we turn back to our analysis of *Kyrie X* at the end of our second paper (p. 31), for example, we see how the melody gives to the two ictic accents of *Kyrie* and of *eléison*, a definitely arsic character.

Thus, in every case, the accent remains arsic in both types of words, with this small difference: that in the spondee, the accent forms the arsis of the general rhythm and of the elementary rhythm at the same time; while in the dactyl, it is included in the arsis of the general rhythm, but is on the ictus of the elementary rhythm. There is no shadow of contradiction here, provided we make the necessary distinctions.

#### THE LATIN WORD IN THE SECTION AND THE PHRASE

We now come to the question of those rhythmic modifications which the Latin word may have to undergo when it forms part of a phrase. These modifications may be imposed by the text or by the melody. Such a question could, doubtless, be developed indefinitely, but I must here limit myself to establishing the general principles that govern the matter.

Every Latin word taken by itself has, as we have long since seen, its own definite rhythm. But words enter into relationship with one another to form phrases, or to adapt themselves to a melody, and thus inevitably lose something of their individuality. In many cases this is the only condition on which they can combine together.

Now, words only exist with a view to the phrase. When we speak, it is not merely to utter a succession of words, but to express a judgment, which may often be a complex idea. Hence it is clear that the phrase has absolute command over each of the words which go to form it; it has every right to modify, sometimes considerably, the aspect of each one of them. All are subordinate to a principal word, which the others help to emphasize, often at their own expense.

Let us take an example: *In te, Domine, speravi, non confundar in aeternum*, "In thee have I hoped, O Lord, let me

never be confounded." A preacher in the pulpit has every right to emphasize any word he pleases, *te* or *Domine* or *speravi* etc., according to the idea that he wishes to impress upon his hearers. The chosen word will be stressed, pronounced more emphatically, with special intonation that will bring it into full relief. By this very fact, the other words will be passed over somewhat lightly. The liberty of an orator is so great that he can even upset the most authentic grammatical laws, and no one will have any right to reproach him. I will explain what I mean. In the sentence I gave as an example, every word is grammatically accentuated except the indeclinable monosyllables *in* and *non*. But if an orator wishes to insist on the idea of the absolute security that results from hope in God, he may perfectly well put all his energy into the word *non*, subordinating to it all the rest, even though it is unaccentuated.

Here then is one undeniable fact: the subordination of the word to the phrase, of the part to the whole, of the means to the end.

A second point, equally undeniable, is the subordination of the text to the melody. Although certain adherents of the modern school hesitate, or even refuse to admit it, it is one of the most certain principles of ancient music: *Musica non subjacet regulis Donati*, "Music is not subject to the rules of grammarians." Even common sense would seem to support us here, if it is true that melody was created in order to transfigure and widen the expressive capacity of our poor human words, which so often fall short of portraying by themselves all the wealth of ideas, sentiments, and aspirations that we have within us. Clearly, if words are susceptible of being enriched by melody (and that is the sole reason for the existence of Gregorian chant), they are subject to the melody which can expand them according to its own manner and choice.

Thus the composer is not obliged to follow the words step by step; he may make free use of them according to the light of his own understanding. For indeed, what he wishes to express musically is not each individual word that he uses, but solely the idea or sentiment expressed by the succession of words which make up the sentence or the phrase. He is only interested in the idea; the words and syllables—in modern as well as in ancient music—are, or may sometimes be, scarcely more than the necessary substratum on which to support his melodic developments.

It is true to say that Gregorian chant is of such admirable construction, it is so natural and perfect an art, that very often composers have succeeded in preserving the general melodic trend while, at the same time, paying scrupulous respect to the particular character, melodic, quantitative, and rhythmic, of each

of the words. This is clearly seen in the *Memento verbi tui* and in the *Hodie in Jordane* cited above.

It is none the less true that perfect freedom remains, and composers have, in fact, frequently made use of their liberty. We have only to open the *Liber Usualis* to see that the same word is treated differently in different circumstances, without the least embarrassment on the part of the composer, and according to his pleasure. Thus, for example, in the Introit *In voluntate tua*, of the twenty-first Sunday after Pentecost, the word *Domine* occurs twice. On the first occasion, there is only one note on the accent, and three on the weak penultimate syllable. On the second occasion we find five notes on the accent and only one on the weak penultimate syllable. Hence, on the only two occasions on which he makes use of it, the composer has given the word *Domine* a rhythm utterly different from its normal rhythm, with the further complication that the two forms adopted are the contrary of one another. Why? Because he wished to. In composing his Introit, which is, moreover, a masterpiece, he was not seeking oratorical rhythm, but true musical expression, or rather he was busy praying and singing freely his entire confidence and self-abandonment into the hands of God, without worrying himself about the grammatical form of each of the words. And who will dare to blame him?

The melody, therefore, has precedence over the text, and may exercise its superiority in each of the "orders" mentioned above. Melodically, we sometimes find words with their accent on a low note, and their final syllable on a high one; quantitatively, we find neumatic developments on all syllables, including the weak penultimate syllables of dactyls, which are grammatically the least suitable for such treatment. Even in the intensive order, the final syllable has sometimes a slight crescendo from the accented syllable, because of the melodic sequence.

Obviously these melodic, quantitative and intensive modifications often entail rhythmical modifications also: words can lose the ictus on their final syllable; spondees can have an ictus on their accent, and dactyls an ictus on the penultimate, with the accent on the up-beat. In a word, the melody rules, and we should not complain of this, for in this way Gregorian art has given birth to innumerable masterpieces, and become possessed of a quite extraordinary pliancy. We need have no fear in asserting that there is no musical language so ideally supple as is that of Gregorian chant. It is truly the instrument of one's dreams, at the service of prayer which expresses the spiritual relationship of the spiritual soul with that pure Spirit, God.

To choose but one example among thousands, let us look once more at the *Salve sancta parens*, as given a few pages back. Here are three spondaic words, having, grammatically, similar accentuation. In the first, *Salve*, and the third, *parens*, the accent has four notes; whereas in the second, *sancta*, it has only one. In the first and the third, the spondaic accent is on the down-beat, while in the second it is on the up-beat. Why? Because the composer, or rather, whoever adapted these words to the melody of the Epiphany Introit *Ecce advenit*, was pleased to make it so.

We know that the accent is a melodic elevation; but the accent of *Salve* is low. Why? Because the melody requires it: the piece begins with an intonation starting low, rising up towards the principal accent, and falling away again at the cadence, a frequent procedure in Gregorian art. The word is strictly subordinate to the melodic sequence, that is, to the "musical," not the "oratorical" rhythm. But notice, however, that the artist contrives to reconcile all the various elements: starting on a low note, he ascends at once, rising just above the tonic, so as to be able to fall to rest on it at the final syllable.

In the Communion *Memento*, the first word, a spondee like those that follow, has a neum and an ictus on the accent, in spite of the fact that the composer might easily have treated this accent exactly as he treats those in the words that follow. Why? Always the same reason. There is indeed a normal rhythm of individual words, but the words are subject, nevertheless, to the supremacy of the phrase and the melody. The composer has full liberty, and makes use of it.

In practice, to determine the place of the ictus (which is, as we know, the basis of the general rhythmic synthesis and the condition *sine qua non* of its existence), we must look first of all at the melodic indications, especially those which are neumatic: lengthened notes (dotted notes, the pressus, the note before a quilisma) and neums. In their absence (and this is frequent, especially in antiphons), we must, as far as possible, make use of the final syllables of words and the accents of dactyls. If, however, we are faced with a melodic phrase of clear and even stereotyped design, this must be given precedence, because of the law of the supremacy of the melody over the text. I can only touch on all these details here, although they are both important and interesting. In our Solesmes editions of liturgical books, vertical episemas ordinarily indicate the place of the ictus in doubtful cases, so one has merely to follow them.

One last word, in recapitulation of all that has been explained hitherto: It has often been supposed that the "Solesmes Method" may be summed up in the dictum: "the accent on the up-beat." But this is inaccurate. To teach that the accent is



always on the up-beat would be as false as to teach that it is always on the down-beat. I think I have shown, with sufficient clarity, that the accent in a spondee is normally on the up-beat, while that of a dactyl is normally on the down-beat, and that, moreover, both phrase and melody can freely modify the character of the individual word.

The truth is therefore this: Contrary to the theory still favoured by certain schools of thought (although it is one flatly contradicted by facts), the accent *can* be on the up-beat quite as well as, and often better than, on the down-beat, because its natural lightness enables it to be on either. If, therefore, a brief summary of the method of Solesmes be required, it might be condensed into these two propositions:

- (a) Complete mutual independence of rhythm and intensity.
- (b) Complete mutual independence of the rhythmic ictus and the Latin tonic accent.

#### THE GENERAL RHYTHM

Before coming to an end, and since we have now before us all the elements that make for clarity, I must say a few words (I wish they might be more!) on the synthesis of composite rhythm.

In the third paper, we gave some practical rules for determining the place of the ictus. I reproduce them here to aid our memory, and complete them by those that result from our study of the rhythm of the isolated word:

- (a) The vertical episema;
- (b) Lengthened notes (dotted notes, *pressus*, note before a *quilisma*);
- (c) The first note of each neum, provided it is not immediately preceded or followed by another ictus;
- (d) In syllabic chant, preference should be shown for the final syllables of words and the accents of dactyls.

What then are the practical rules for determining the arsic or thetic nature of each ictus in the third rhythmic synthesis (cf. Paper II, p. 28), that of composite rhythm?

No precise answer can be given to this question. The place of the ictus arises out of what I called the rhythmic "mechanism"; so that if sometimes there is a certain liberty, more commonly we find that the material qualities of length, melody, neumatic grouping, etc., impose a definite rhythm, which we could not neglect without immediately upsetting the whole economy of the phrase. There is certainty on this head, therefore, more often than not.

But in the highest rhythmic synthesis, it is quite another matter, for on this depend ultimately all the shades of expression, movement, intensity, and trend of meaning. Here it is a question of interpretation, of art. No longer can we deal in rigid and absolute rules, but must be drawn along by the unrestricted pliancy of Gregorian chant, which, however, leaves the interpreter the greatest possible freedom. Who indeed can be legislator in matters of taste?

Nevertheless, here, as in the other syntheses, we have some things that are certain and others that are absolutely free. Gregorian chant is essentially melody adapted to words, and exists solely in union with words. Each of these two elements, melody and text, has its own rhythm. If the melodic and verbal rhythm coincide, all is well; but if, on the contrary, they are different, or even contradictory, it is not always easy to know which is to have preference.

Let us proceed by steps, and first consider the melody alone, apart from the words. Everybody knows that in natural music, although there is no hard and fast rule in the matter, a melodic rise normally involves a slight crescendo and accelerando, because it is expressive of exertion, of progress, of increased life. A melodic descent, on the other hand, suggests calm, or the approach to an end, and is usually accompanied by a decrescendo and *ritenuto*. We can say therefore, that an ictus forming part of a melodic ascent tends to be *arsic*, and that one included in a melodic descent tends to be *thetic*.

Now let us look at the text, apart from the melody. Since the tonic accent forms the *arsis* of a word, and the final syllable its *thesis*, we may say that an ictus that falls on the tonic accent tends to be *arsic*, while that which falls on the final or weak penultimate syllable tends to be *thetic*.

Now let us turn to text and melody together.

If their rhythms accord, everything is easy, and we can give a sure rule :

(a) An ictus that coincides with a tonic accent in a melodic ascent is certainly *arsic*;

(b) An ictus that coincides with the final, or weak penultimate syllable of a word in a melodic descent is certainly *thetic*.

Several examples may be found in the *Kyrie X*, and in the Communion *Memento verbi tui*, already quoted.

Difficulties only arise in those cases, not indeed rare, where the melodic and verbal rhythms contradict one another; that is, when an ictus falling on an accent (*arsic*) forms part of a melodic descent (*thetic*), or, on the contrary, when an ictus on the final

syllable of a word (thetic) is included in a regular melodic ascent (arsic).

What must be done in such cases cannot be a matter of rules. Each case must be examined individually, and we must try to recognize which has the prior claim, text or melody. In practice it is a question of musical sense and taste. All I can do is to give you a few directing principles, which you may apply as you think fit. If we allow—and for me the matter is not open to doubt—the supremacy of the melody over the words, we must give priority to the melodic rhythm, at least when we are faced with a perfectly clear melodic design. But if the melody has no particular characteristics and consists in a more or less simple undulating line, leaving the words their full individuality, in this case it is better to give precedence to the verbal rhythm.

But this, I repeat, is a matter of taste which can vary with different persons and which can even change according to the passing dispositions of an individual. We are here in the realm of art, of high art, where the most delicate influences are brought into play. Nevertheless, it is no idle matter, for frequently the whole secret of interpretation, the whole musical life of a piece and its truly prayerful expression depend upon it.

I will bring these papers to a close by a highly practical recommendation:

We must distinguish between the objective rhythmic analysis which we make at our desk or piano, and that which forces itself upon us at the moment of execution. Rhythmic analysis—like chironomy, which is its visible expression—is only a means to an end. It is the end itself that really matters, which in this case is perfection of interpretation. This means that chironomy must be regulated *hic et nunc* according to the needs of the choir that is singing. If the choir has a tendency to flatten, to become heavy, to lack élan and life—and such is often the case—then, multiply arsic passages, even where the objective analysis requires a thesis. If, on the contrary, there is a tendency to rush, hold the choir back by repeated thetic influences, even where the melodic élan or an accent ordinarily requires an arsis. For, after all, we sing in church, not in order to show off our art or musical taste, but to pray; and prayer is only possible where there is living and disciplined unity of voices.

