

The Nave, Looking East.

# SEMIOLOGY AND THE INTERPRETATION OF GREGORIAN CHANT

(This article was published in *Divini Cultus Splendori*. a *Festschrift* prepared in honor of Joseph Lennards of the Netherlands on the occasion of his eightieth birthday. Mr. Lennards has devoted his life to the study of Gregorian chant and its teaching through the Ward method. The translation from the French was made by Virginia A. Schubert.)

It is fitting to honor a recognized Gregorianist like Joseph Lennards, enthusiastic disciple of Dom André Mocquereau, with a discussion of the ideal of the founder of the school of Solesmes.

This ideal was proclaimed throughout a long scientific and artistic career which began when a young monk of Solesmes undertook a study of chant more by duty than by choice, and consequently came to realize its incomparable value. Thus, beginning with the general introduction to La Paléographic musicale of 1889 and continuing to the *Monographic Grégorienne VII*, written in 1926 to refute Dom Jeannin's theory of dividing chant into measures, one finds different formulations of the same very clear affirmation: "It is in the great variety of notations of neums that one must seek the light on every aspect of Gregorian chant." (*Paléographic musicale, XI*, p. 19) The path was thus laid out, but it was a long and difficult one to follow.

Is this surprising? When a musical repertoire, which was first only memorized and then fixed on parchment by procedures that were more or less precise, was submitted over several centuries to a deadly and sometimes sytematic degradation, the result is that such a repertoire is so deformed that its true nature can no longer be imagined. For all intents and purposes its tradition has truly been destroyed.

Efforts attempted to correct the resulting errors have the expected results, for the means employed are generally taken from the principles of classical or modern music and are not adapted to the special characteristics of Gregorian chant. The risk is that such attempts to correct errors really result in deforming the chant in another way. It is a vicious circle. If one observes that Gregorian chant is evolving in a negative way, one does not know how to correct that state, being ignorant of the way it was sung originally.

Instead of beginning by attempting to define Gregorian chant and to classify it as one type of music or another, it must be studied in itself, and its notation must be reconstructed as best one can. Before commenting on the interpretation of a musical work that one can no longer hear, the musical score must first be studied. According to the program of Dom Mocquereau this brings us back to the original notation as the only primary source since the first medieval theorists have almost nothing to say on the subject. The least we can do is study these notations, which are the oldest and richest in all kinds of indications, in every way possible so that no precious detail escapes us. Every manuscript and every family of notation should be examined carefully before enlarging the investigation by comparing the diverse families among themselves.

The first job, which is paelographic in nature, consists of deciphering and classifying the various ways of writing the neums. This foundation is necessary before undertaking more refined and interesting research.

When the same manuscript includes signs for neums that are different in form but intended to represent the same series of sounds (there are at least twelve different forms for the torculus in the first documents from St. Gall), it must be observed first that the choice made between these signs is conscious and coherent. A certain sign is used in all the cases where the same musical context is found. As soon as the intention of the writer is thus verified for each of the signs, one must ask what is the meaning (*logos*) of these signs (*semeia*) that are so clearly differentiated and used with such care? Why does the neum take this form here and another there? The answer to this question is the very object of semiology. A comparison between the writing used to represent the neums on deforming musical compositions more or less severely.

It follows then that in a chant competition the elimination of a candidate would give sanction to a serious blow struck at "traditional data" for we would no longer have true Gregorian, but something else that would not be of the same interest to us.

Interpretation necessarily takes place beyond and above the "semiological date." Starting with material that is re-established in this way as exactly as possible it will create authentically beautiful pieces. Just as in all music, the person interpreting it must take a position personally, using his taste, his sensitivity and culture, while respecting the limits established by semiology. Semiology marks off the terrain in which one can maneuver at will. However, if one moves outside of the limits, one will fall into subjectivity or fantasy. It is therefore not the role of the contemporary musician to decide the value of a certain Gregorian performance if he does not first have the proper training. Whether he approves or condemns, his judgment will not be justified. If he shows a preference for a performance that does not respect historical truth, such a performance would in no way be justified. If, to the contrary, he criticizes another that follows the indications of the most ancient manuscripts, it would in no way effect the science of semiology. The performer does not attain his goal if he does not manage to give to the chant the life that belongs to it in a strictly Gregorian ethos, satisfying at the same time prayer and musical art. This is for us an excellent reason to justify the publication of instruments of studies that allow the re-discovery of what Gregorian chant was like in its origins.

In 1863-64, Michael Hermesdorff had already edited in Trier his *Graduale* in which paleographic signs in type face were placed above the staff. Dom Mocquereau did more by copying in his own study copy as well as in his choir copy the neums from the oldest manuscript from St. Gall. The *Gradual Neume* was undertaken without any idea of publishing it. The goal was simply to facilitate and support a greater familiarity with Gregorian chant which was becoming ever better understood and appreciated. The publication was only decided on later because of constant requests from students. Today the *Graduale Triplex* which adds to the square notes of the official edition the neums of Laon 239 and St. Gall performs a still greater service.

Who would ever have the idea of advising all the faithful to use these perfected books? They are for those who know how to read and for those who want to learn and perfect themselves in the most authentic tradition. It is an efficacious antidote against empiricism and the inevitable errors of too simplistic methods.

As for those who continue the original criticism directed against Dom Mocquereau on the differences in the various families of notation or those who propose to put off until doomsday the applications of recent semiological scholarship, they seem to be ignorant of two things. On the one hand, they do not take into consideration the fact the one hand and the word and the melodic text in which they are found on the other hand provides well-known criteria.

However, the relationship that exists between semiology and interpretation is less well understood. Semiology is not a method for performing Gregorian chant as some have believed. It is rather a science that searches for and learns to read what the first writers wrote, and even, what they intended to write. Semiology belongs to the realm of solfeggio, for it brings out the diverse values between sounds and re-establishes an original hierarchy between them that must be followed in performance at the risk of that appearances are often deceitful. Various ways of writing neums, even those that seem at first opposite, can lead to the same performance when one knows how to interpret the neums in the context of their own notation. On the other hand, one can ask if it is possible to imagine an end to the re-discovery of Gregorian chant? Semiology is an historical science, and consequently, it is called upon to investigate indefinitely. It is a facile and worthless evasion to wait for the end of the research before performing.

Placed as we are during a period when there is an undeniable renewal of Gregorian chant, we cannot disappoint the hope that is born especially among the young. We must do everything in our power to give them a solid and authentic instruction which corresponds to their aspirations.

DOM ÉUGENE CARDINE, OSB



Raphael. Detail of angels from the Virgin of the Baldaquin. Pitti Gallery, Florence.

## GREGORIAN SEMIOLOGY: THE NEW CHANT. PART I

(This is the first of a series of four articles on contemporary study of Gregorian chant and the findings it has produced.)

The decade of the 1960's was a time of searching for all denominations in the Christian church, but for lovers of Gregorian chant it proved a time that seemed disastrous. Even though the decisions of the Second Vatican Council proclaimed that Gregorian chant should maintain its "pride of place" as the revered music of the Catholic Church, reality saw to it that the chant went out the door with the Latin. Congregations that had been silent for over a thousand years were suddenly expected to sing and the frantic, on-going search for a music they could call their own began. So great was the fear that a century of research and devotion would slip into disuse that the French Assembly, realizing that the chant was really a Gallic art more closely related to Charlemagne and his empire than it was to Rome, declared it an official art treasure and directed the Ministry of Cultural Affairs to offer regular classes in chant interpretation.

The chant had been dealt near fatal blows before. In the sixteenth century, after the Council of Trent, re-acting to the pressure of the Lutheran chorales and Huguenot psalm tunes, some authorities without a mandate ordered the chant to be pared of all its "gothic excess," being the melismatic ornament that the medieval Church used to decorate its intonations, in the same way that the medieval artist decorated the cathedrals. The chants were reduced to the more or less syllabic versions which remained in vogue until the early twentieth century. In France the revolutionary government threw out the chant with the rest of the Church where it remained until the restoration in the 1830's.

The restoration saw the re-opening of the Abbey of St. Pierre de Solesmes under Dom Prosper Guéranger with the express purpose of restoring the liturgy and its chant to a state which was as faithful to the early medieval practice as possible. This involved a seventy-year study of manuscripts which were collected, copied or eventually photographed from all over Europe, backing up through history from the square notation that they could read to the ancient, tenth-century neumes whose

meanings remained largely obscure. This was perhaps the most enormously painstaking and methodical chore in the history of musicology. Every syllable of every chant for the church year, both the Mass and the office, was charted with columns showing the versions from as many as twenty-five or more different significant manuscripts. From these charts, the monks deduced what was to become the official chant for the entire Church in 1908.

While the musicological world applauded the monks' efforts in restoring the ancient melodies, the rhythm of these melodies remained open to great dissension. Neither the familiar square notation or the ancient unheightened neumes seemed to give any conclusive evidence of rhythmic pattern. Furthermore, despite the plethora of treatises which describe medieval thoughts on modes and counterpoint, there is not a single extant work devoted to a discussion of rhythm. The few writers that even mention in passing with such phrases as "as one to two" or "longer and shorter" are separated by one or two hundred years and write in terms that are open to misunderstanding at this historical distance. Gregorian rhythm seemed to be the victim of one of those blind spots in history that occur because the subject was so obvious in its day that no writer saw any reason to discuss it!

The restoration of the chant by the abbey took place in tandem with the rise of the art of musicology in the late nineteenth century and the matter of rhythm has been caught in a dichotomy ever since. The research musicologist is dedicated to the unravelling of mysteries and often cannot conceive of a concerted music without a definite, metered rhythm to lean on. For the ecclesiastical world, the chant is not a musical performance but a sung prayer. Therefore, in order to perform it they had to accept some workable rhythmic system, authentic or not. However, even among the most ardent mensuralists in the musicological camp there has never been any system they could all agree on. The original theory at Solesmes under Dom Joseph Pothier was that, since the chant was an ornamented intonation and in no way related to dance or folk music, the music should move in a conversational flow. This theory, however logical for prayer, did not satisfy the mensuralist camp and the battle raged on.

By the turn of the century, the Vatican under Pius X was anxious for the Church to be united under one system of chant and the deliberations, which resulted after his *motu proprio*, began. The German musicologists still agreed that there must be some mensural system but had no agreement as to which one. In the meantime, Dom André Mocquereau, who had become chantmaster at Solesmes, had devised a system based on a single, indivisible beat for each note and grouped the chant melodies into groups of two or three-note patterns according to his "rhythmic ictus." This theory was based on no historical evidence at all, but it did have the advantage of enormous aesthetic instinct and rationale and it did have at least a steady beat. This system won out, and Solesmes Abbey got permission to print the chants in their restored versions with Dom Mocquereau's editings: the horizontal episema, the dots, and the controversial vertical episema. The restored chant was spread throughout the Church, where it prevailed until the advent of the vernacular service in 1965.

During the years between 1903 and 1965, the chant rose from obscurity to an art form. Even though badly done by those who took Dom Mocquereau's indivisible beat too literally, in the hands of an artistic, knowledgeable conductor it took its place beside the masterpieces of any other epoch. Dom Joseph Gajard, Dom Mocquereau's successor, not only gave the world its first commercial recordings featuring the monks of Solesmes but travelled widely, teaching choirmasters and students the beauties of the Solesmes interpretations which, of course, involve the whole spectrum of choral beauty and worshipful sound, not just the rhythm. He established what is still the basic sound and atmosphere of Gregorian chant. By the time of Dom Gajard's death in 1970, the chant world had been hit with two staggering blows. The first was Vatican II. The second came from Solesmes itself. Dom Eugène Cardine, a paleographer and monk of Solesmes who also taught at the Pontifical Institute of Sacred Music in Rome, had uncovered new meanings in the ancient, unheightened neumes that were not according to Dom Mocquereau's theories and which pointed out misunderstandings and errors in the Vatican Edition of the chant.

Research into the middle ages, after all, did not stop with the *motu proprio* and the abbey continually kept at its dedicated probing into unlocking the secrets. While studying the charts from which the Vatican Edition was made, Dom Cardine began to marvel at the incredible similarities that existed in the manuscripts even though they originated anywhere from Ireland to Sicily and Spain to Poland. Why was it, for instance, that even though the ancient neumes had as many as twelve different variations in the design used to notate a three-note group, there was an amazing similarity in the neume chosen, even in different manuscript schools? It became obvious that with the advent of large square notation some indications had been eliminated. Further study proved that the early notations gave many directions as to interpretation even though they gave very few as to exact pitch. All this was lost with the advent of square notation in the twelfth century.

Cardine's discoveries lead to his publication, in 1970, of his treatise, *Sémiologie Grégorienne*, semiology being the art of understanding symbols. Because of its importance, it exists in the original Italian and in French, Spanish, Japanese, German, and in English as translated by this author. Despite the excitement with which his revelations were received by many both within the Church and without, general histories of medieval music do not as yet reflect the findings, and most of the Catholic Church in the United States, having divested itself of the chant, is not even aware of the changes. Chantmasters who were artist interpreters under the former tradition have been reluctant to change and one especially ardent supporter even left a two-million dollar endowment to maintain the theories of Dom Mocquereau. (A musicologist of Mocquereau's standing might even have been elated by the new findings!)

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Besides the *Sémiologie*, the abbey has now published a new *Graduale* which is in keeping with the post-Vatican II ritual. The old *Liber Usualis*, the music student's handy source for Gregorian melodies, is out of print. The new *Graduale Triplex* contains all the music for the new Mass with three different notations: the square notation which gives the exact pitch plus the neumes from the German school of St. Gall below the staff, and those from the French school at Laon above the staff. The abbey is presently at work on adding the same to the *Antiphonale*, the music for the office. Thus the square notation still provides us with the melody but the tenth-century neumes guide us in the rhythmic nuance for its interpretation. (The rhythmic signs of Dom Mocquereau are also still on the square notation for those who wish to continue the earlier practice, but they, of course, have no use in the more recent interpretations.)

Cardine's discoveries have resulted in significant diversions from the former tradition. First of all, the chant proceeds in a basic syllabic rhythm, in line with the original instincts of Dom Pothier. The syllables, however, are longer or shorter according to the normal Latin pronunciation and the type of neume used. This basic difference might be shown in English by the differing speed of an off-hand "certainly," a more deliberate "probably," or a determined "by no means." These differences first appear in the use of a dot (.), the punctum, a dash (-,/), the tractulus or virga, or an episema (-,/), the small line like the top of a *t* added to the tractulus or virga.

For neumes of two or more notes, his discovery was more revealing. Historians commonly point out the similarity between the earliest neumes and the grammarian signs added to early manuscripts for ease in reading. These tenth-century neumes that concern us appeared in small books held by the chantmaster and were intended to remind him how to conduct the chants that the monks, who probably could not read at all, had already memorized. In some instances the signs seem to imitate hand signs for the conductor. But in greater reality, Cardine realized that there was a definite relationship between the ease with which the copyist's hand could move and the intended interpretation. A flowing design which required no stopping of the pen indicated a normal, flowing tempo whereas a square-cornered one or one in which the line was broken, forcing the copyist temporarily to lift his pen, prescribed a more deliberate movement. The speed of the notes could also be affected by adding "significant letters," small letters which suggested speed up or slow down.

Perhaps the most exciting discovery uncovered the meaning of the neumatic caesura, the *Neumentrennung*, the instances where an otherwise connected group of notes was broken into sections or where a long melisma was divided into a series of smaller groups by the copyist. Cardine has shown that the note on which the copyist was forced to lift his pen from the parchment should receive a lengthening, thus giving some extra importance to a syllable or defining a musical design for the groups of notes in the melisma. In many instances, the Vatican Edition ignores these indications.

A summary of the interpretative meanings hidden in the ancient neumes will appear in a following article. Cardine's *Sémiologie* gives detailed instructions for performance of some two hundred neumatic symbols as well as the paleographic reasoning behind his conclusions. Even though the half-dozen basic principles involved in his discovereies are relatively simple, the total of all their combined implications leads not only to a freedom from a rigid pulse, which lacked historical foundation anyway, but to a more wonderful flow of sound, true to the natural accentuation and meaning of the Latin, and to a variety in the phrasing and nuance that adds a more graceful design to the melismas. In the hands of a musician who is also a theologian, the implications behind the accentuation of the text often gives us an open window into the mind of the middle ages.

ROBERT M. FOWELLS



Detail, "Circle of Angels and the Elect" from the Last Judgment by Fra Angelico, 15th c. Academia, Florence.

## GREGORIAN SEMIOLOGY: THE NEW CHANT. PART II

(In reading these articles, it is suggested that the reader consult the *Graduale Triplex* and the English translation of *Gregorian Semiology*, both of which can be ordered from the Abbaye St. Pierre de Solesmes, F-72300 Sablé-sur-Sarthe, France.)

The previous article was devoted to a quick resumé of the history of Gregorian chant so far as its interpretation is concerned. It pointed out that the style of singing known to most chant lovers today had existed, in reality, for only some sixty years between the *motu proprio* of 1903 and Vatican II in 1965. The interpretive discoveries of Dom Eugène Cardine, published in his treatise *Sémiologie Grégorienne* in 1970, disclosed the fact that the ancient, unheightened neumes from the tenth and eleventh centuries were filled with indications regarding the movement of the chant,

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its expressive nuance and its melismatic designs even though they have very few indications as to exact pitch. The little books in which they appear were intended for the chantmaster's use, only. By the time notation on staffs had appeared in the twelfth century the monks and the clergy had become literate and the chants were copied out on huge choirbooks in square notation that the whole choir could see, but with the change in notation the expressive signs disappeared, leaving a distinct melody which evidently had no rhythm.

Regardless of whether these earliest, unheightened neumes were borrowings from grammarian signs or intended to mimic the chantmaster's conducting signs, Cardine has shown that the monks of the Carolingian era developed systems of notation in which the movement of the melody was directly related to the ease with which the scribe could move his pen. The designs follow the direction of the melody, with the first element always showing the relative lowness or highness of the first note in relation to those that follow. The first mark literally says, "It's *that* direction." Thus, the simple sign  $\checkmark$  shows us that there is a starting note at the bottom ( $\checkmark$ ) which is followed by a higher note ( $\checkmark$ ). Or, in the other direction, a higher note ( $\checkmark$ ), combining as  $\land$ . This elaborate system of dots, lines and curves which appeared above the text of the ancient chantmaster's little book enabled him to remind his largely illiterate monks of the subtleties in the melodies that they had already memorized.

This article will outline the most significant indications to be found in these neumes which are now printed above and below the square pitch notation in the new *Graduale Triplex* and in the future *Antiphonale Triplex*. Since the square notation gives the actual pitch, there is no need to discuss pitch indications unless they have to do with the interpretation or are needed to clarify the meaning of a neume.

Before discussing the actual neumes, there are certain small letters, often called Romanus letters, which appear in the old manuscripts which concern tempo, and there are others which are merely warning signs of unusual pitch factors—leaps, unisons, etc. The latter have been taken care of in the standard square notation but the Vatican Edition was often inconsistent and in error as regards the tempo indications. Where the scribes wrote a small t (tenete: hold) or less often an x (expectate: (wait) the Vatican Edition normally added a dot or a horizontal episema to indicate what was believed to be a doubling of the time value. This is no longer taken as a strict doubling but merely a lengthening to give emphasis to a note. Where the scribes wrote a c (celeriter: speed) the Vatican Edition ignored it completely because it could not fit into the concept of an indivisible beat, even though the old neumes distinctly prescribed a quicker movement through the note or notes indicated. Sometimes these letters were lengthened to indicate their application to a whole group of notes. (c, f) There were also modifying letters such as m (mediocriter: (a little bit) or b (bene: quite a bit). Mystery still surrounds the use of a few rarely used letters such as f (*fremitus*: roaring or murmuring), g (*guttur*: throaty) or k (*klangor*: noisily). The frequent letters s (written in old script as  $\Upsilon$ ), a and i are warnings of unusual upward leaps; e indicates a unison, and i or d downward leaps. Occasionally the small letters seem to contradict the neume they are placed by, which indicates that the scribe made a mistake and is correcting it with the letter.

Even though the *Graduale Triplex* uses both the St. Gall and Laon neumes, this article will be mainly concerned with those from St. Gall. For the performer, they lie between the text and the square notation and are easier to see. In most instances they also agree with the Laon notation, although, as the next article will point out, at times there is an interesting artistic choice which can be made between the two, regardless of the square notation. For each of the neumes discussed, its symbol in

square notation will be followed by the series of variations on that same neume that are possible in the early notation, showing immediately the inadequacies of the later notation in relation to the subtelties possible by the earlier, supposedly more primitive notation.

Isolated notes  $\blacksquare = \cdot, -, -, -, -, -$ 

The simplest neumes are those which indicate a single note for a single syllable: the dot or punctum  $(\cdot)$ ; the virga  $(\cdot)$ ; and the dash or tractulus (-). The tractulus and the virga both signify a standard, syllabic beat, not a metronomic beat but one that varies with the speech rhythm of the word. They are equal in value but they differ in design because they often denote changes in pitch level, changes which are readily seen now in the square notation. When the scribe wished to denote a lengthening of a note, he added an episema, the top of the letter t (tenete) which caused him to lift his pen from the parchment and hence slowed down the movement. This lengthening is not intended as any arithmetic multiple but simply as an added emphasis on the note, and hence the syllable that goes with it. To shorten a virga, the scribe had to add the letter c (celeriter) and some manuscripts did the same for the tractulus.

The isolated punctum appears only in one manuscript, the Cantatorium of St. Gall (St. Gall 359) which is also the most perfect and precise of the early tenth century manuscripts. It is always used as a shortened tractulus, indicating a lower note, and appears in a series of unisons. The sign denotes a lighter, quicker motion such as is appropriate to those syllables of a word which lead up to the accented syllable. As we will see later, the punctum has this same meaning of lightness when it is combined with other symbols into a three or four note neume.

Clivis

1

$$\mathbf{R} = \mathbf{A}^{\mathbf{A}} \mathbf{A}^{\mathbf{A$$

Analysis of Gregorian melodies shows that most of them can be shown to be ornamentations of intonations on the dominant or tonic notes of the mode. For this reason, neumes with more than one note per syllable should be thought of as such and should move a little faster than the isolated neumes in a flow that is often referred to as melismatic tempo. There is, of course, enormous difference between some of the simple antiphons and the soloistic graduals, but the principle of ornamenting important scale degrees with turns, passing tones, etc. still holds.

With the clivis, we find seven possible variations on the neume for which the Vatican Edition has only one sign. It always denotes a two-note pattern in which the first element is higher than the second. The basic example consists of only two elements—a line pointing up and a line pointing down—which a scribe could make with one easy movement of the hand. The longer second arm of the second example warns that the last note is a third or more lower than the first. The remaining signs, however, are interpretive. The c on #3 reminds us that both notes should move faster than usual. The following signs prescribe lengthening: #4 says to lengthen both notes; #5 is a rare form which emphasizes the lengthening by making a square sign and also adding an episema; and #6 and #7 both tell us to lengthen the second note because of the added episema. Some scribes used the letter t instead of the episema and we occasionally find both used for emphasis.

Pes (Podatus) 
$$= \frac{1}{2} \frac{2}{3} \frac{3}{4} \left[ \frac{5}{4} \frac{3}{4} \frac{3}{4} \right]$$

Here again the Vatican Edition has only one sign for seven possible variations. The pes is a two-note neume in which the first note is lower than the second. The rounded form of #1 is an easily drawn hook in which the first part points down and the second part up, both notes moving lightly in accordance with the design. The episema on the top of #2 tells us to emphasize the second note, whereas the square form of #3, which requires a more deliberate use of the scribe's pen, emphasizes both notes. #4 is a rather rare design which was used to warn the singers of a higher pitch for the first note than they might expect but its rhythmic value is the same as the square #3. The last three designs involve unisons and will be discussed later.

Porrectus 
$$\mathbf{N} = \sqrt[1]{\mathcal{N}} \frac{1}{\mathcal{N}} \frac{3}{\mathcal{N}} \frac{4}{\mathcal{N}}$$

The porrectus is a three-note neume in which the second note is lower than the first and third, actually a clivis combined with a pes. (There are some instances where the sign denotes a high note followed by two lower notes at the same pitch, as would be shown in the square notation.) Again, the Vatican Edition often uses the same sign for all four variations. The first sign is a quickly drawn figure which indicates that all three notes move at the melismatic tempo. In sequences that include more than one porrectus, the scribes often added a c to make sure that the movement did not lag. The episema on #2 lengthens the third note, the one on #3 lengthens both of the first two notes, and the one on #4 lengthens all three because of the caesura (cutting) between two and three, as will be discussed in detail later.

A= ハガカ 5 カガ パッ あっち ハイ

#### Torculus

The torculus combines a pes and a clivis into a three-note neume in which the second note is the highest. The first flowing sign indicates melismatic tempo and often has a *c* added for a reminder not to linger on the first note. The second sign is the same except that it has a longer third member to warn of a drop of a third or more. Sign #3 requires a more deliberate movement of the pen and almost always appears in cadence figures where a slowing down is in order. The fourth and fifth signs, besides warning of a lower or higher first note, also indicate an emphasis on that note because of the caesura which follows it. The two neumes under #6 indicate a light first note followed by two longer ones, as is sometimes emphasized by an added *c*. Numbers seven and eight are also forms that indicate an emphasis on the last two notes. The same holds true for #7 and #8, but they differed in design because of their particular use in melodic passages.

The foregoing discussion establishes the basic principles behind the interpretive suggestions inherent in the earliest notation but they cover only about a fifth of the Cardine treatise. Most of the remaining neumes are combinations of the foregoing neumes, operating on the same principles: dots indicate a light movement; dashes, the normal movement; curves, a melismatic flow; and squareness, the addition of an episema; or the breaking of a neume, a more deliberate movement or emphasis on a particular note. Thus the climacus (122, 122) and the scandicus (122, 122) indicate a series of light notes, but if a dot is replaced by an episema (22, 122) that note should be given an emphasis that is not shown in the Vatican Edition. The same holds true for

the various four-note neumes such as the porrectus flexus ( $\mathcal{N}$ ), the pes subbipunctis ( $\mathcal{N}$ ), the scandicus flexus ( $\mathcal{N}$ ), or the torculus resupinus ( $\mathcal{N}$ ).

Another group of light neumes is made up of various combinations of dots or apostrophes. Often these carry indications of unison notes but they also indicate light movement unless there is an added episema. Probably the most significant change which concerns the interpretation of these neums is that, contrary to the theories of Dom Mocquereau, two or more notes on the same syllable that are on the same pitch are not sung as a sustained sound for the value of all the notes but must be lightly repercussed—not actually divided from each other but pulsed with the voice. The Vatican Edition shows these as a group of square notes in unison but it does not show that the last note of a group often has an episema. In the case of the bivirga or trivirga ( $f_{i}$ ) the unison notes should receive even more deliberate repercussion since they are used to underline syllables which call for a greater emphasis in pronunciation. The trigon ( $f_{i}$ ) also indicates a series of light notes, the first two at the unison, but it also may have an episema on the last note.

#### Oriscus

The oriscus **(5)** is a sign which indicates a unison pitch and it appears especially in cadence figures as a substitute for the more common pes, clivis or scandicus. Without going into all possible variations, the following list gives the most common forms.

Pressus major. ( $\checkmark$ ) This neume indicates two unison notes followed by a lower note and in its most common form requires three syllabic beats. Possible variations include ( $\uparrow$ ) in which the first note is long but the others light, and a reclining form ( $\checkmark$ ) in which all notes are light.

*Pressus minor.* ( The pressus minor with its preceding note and, in fact, is sometimes tied to it. If the preceding note is long, the pressus minor is normally light or, if the reverse is true, the pressus minor may be lengthened with a *tenete*. It may also be shortened with a *celeriter* where there is any possibility of a misunderstanding. In some instances the proper interpretation is best found by comparison with the Laon notation.

*Virga strata.* ( $\checkmark$ ) This can indicate either two unison notes or it can replace a pes in particular situations, a factor which was sometimes mis-transcribed in the Vatican Edition. In any case, it represents two light notes.

Salicus and pes quassus. (5, -) The salicus is subject to the same variations in design as the scandicus, but the presence of the oriscus here prescribes a note which leans towards the succeeding note, which is the important note of the neume. By the same token, the presence of the oriscus as the first element of a pes is an interpretive sign which denotes a leaning towards the following note.

#### Quilisma $\mathbf{I} = \mathbf{w}$

This is one of the most controversial signs in the squabbles between the mensuralists and the Solesmes School. Because its appearance looks somewhat like a mordent and early manuscripts say it should be sung with a "tremulous" sound, many musicologists feel that it is a sign for a mordent or a shake, somewhat in the baroque sense. However, "tremulous" not only means "shaking" but "timid." The Solesmes School has always held that the latter interpretation should prevail and that the note

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should be passed through lightly. In its original form it was indeed a sort of ornament. It appeared in the earliest manuscripts as a note which added the scale degree inside a minor third in pentatonic chants. To understand what a startling sound this could have been, sit at the piano and play a chant-like mixture of notes using only the pentatonic *c*-*d*-*f*-*g*-*a* for about five minutes. Then add an *e* between the *e* and the *f* and the shock will be apparent. The original signs were taken from medieval question marks (add or d), and they indicate the same lightening of the voice one uses when asking a question, showing that the dissonant ornament must not be emphasized. This agrees with the standard interpretation except that Cardine points out that the sign carries no rhythmic significance whereas the earlier practice called for singing it as an eighth note preceded by a dotted quarter note.

#### Liquescence

The liquescent neumes, those that appear in the square notation as smaller notes, are warning signs for careful pronunciation—diphthongs and certain combinations of consonants—and they appear in the old notation as loops added to the last element of a neume. The Vatican Edition uses only one sign. The old neumes use a small loop if the letter involved is to be pronounced very clearly without adding to the value of the note, thus in effect shortening the actual phonated sound, and they use a large loop if there is to be an emphasis which actually lengthens the note somewhat. At the present state of knowledge some confusion remains as to the subtelties implied by these old neumes and the subject is still open to clarification. Regardless, they are warning signs of the need for careful enunciation, especially in the reverberant halls where most chant was sung.

#### Caesura

Possibly the most significant of all Cardine's deductions was the unravelling of the mystery surrounding the caesura, the neumatic break or *neumentrennung*. For instance, if a scribe could easily have written  $\bigcirc$  or its equivalent in the various manuscript styles why did they consistently write their equivalent of  $\_$ ? in particular instances? Or why were the notes of long melismas always grouped the same way, regardless of varying notational schools? Obviously some principle was involved beyond the whim of the copyist. Cardine provides extensive examples to prove that a melisma which could have been copied out in a great variety of ways, if only the pitches were involved, was actually noted in a way that divided it into design groups which were mirrored by the copyist's pen and possibly also by the conductor's hand. And in line with the initial theory behind his discoveries, the brief pause of the pen at the end of each grouping determined the point at which a slight *tenuto* on the final note caused the designs to be obvious to the listener. The neumatic breaks are actually expressive indications which the copyist never failed to show.

The final article in this series will show many instances in which this expressive device not only adds emphasis to important syllables but mandates musical designs in passages that were often sung as a meandering, rather senseless succession of notes. These beautiful gothic designs were prime targets when the late renaissance church musicians trimmed the chant of its "barbaric excesses!"

The foregoing article gives a quick synopsis of the findings of Dom Cardine. The entire treatise covers many occasional exceptions not possible to discuss here, along with exhaustive proof of the validity of his opinions. The concluding article in this series will discuss the interpretation of particular selections from well-known chants as they can now be sung in the light of the earlier neumes.

## GREGORIAN SEMIOLOGY: THE NEW CHANT. PART III

(This is the third and final article in this series by Dr. Fowells.)

The two previous articles discussed the history of the mysteries surrounding medieval chant and gave a summary of the findings of Dom Eugène Cardine regarding the rhythmic and interpretive implications contained in the medieval notation which disappeared when the large, square notation denoting exact pitch came into vogue in the twelfth century. The revelations of his research become truly amazing when viewed as part of the *Gestalt* which is made up of the combination of the text, the melodies, and the subtleties of the interpretive indications. No later notation was ever developed which conveyed the kinds of nuance found in these ancient neumes.

Cardine's theories replaced the rhythmic system conceived by Dom Mocquereau at the turn of the century and in some ways revert to the original instincts of Dom Pothier in the nineteenth century. Cardine has shown that the basic chant rhythm depends first of all on the natural speech rhythm in which important words or syllables receive more emphasis in one way or another than the unimportant ones. A series of single notes may vary in length according to the movement of the Latin. If one says in English, "Where in the world are my glasses?" the words where, world and glasses get more emphasis and a little more time than in the or are my even though they are not strictly counted out as guarter notes or eighth notes. To say each syllable as a quarter note would make the reader sound moronic. Despite the mensuralist contention that a choir needs a steady pulse to stay together, current practice with semiology has proved this to be untrue. Any musical performance relies on phrasing and nuance for a truly musical effect and any listener to Dom Gajard's recordings would realize instantly that even he did not adhere to a strict, unbending tempo. An interpretation based on semiology admittedly requires a greater flexibility, but it is a flexibility that is mandated by the flow of the language and the notation.

The hardest change for the traditional Gregorianist to accept is that neither the vertical episema or the division of the chant into groups of two or three notes is any longer valid. Instead, the music moves generally in two types of motion—either the syllabic beat which agrees with the movement of the spoken word or the melismatic beat which is a somewhat faster movement that takes into consideration the fact that neumes with multiple notes and melismas are actually ornaments and, as such, should be treated with less emphasis than the single pitches. Within these two movements one also finds an occasional c *(celeriter)* which reminds the singer to sing a note or a group of notes a bit lighter and faster than usual. One also finds the various ways of adding some emphasis and length to a note—the episema, the t *(tenete)* or the caesura. Thus, awareness of the types of tempo plus the neumatic variations and alphabetical signs (the Romanus letters) forms the basis of the more relaxed and even dramatic sound of the chant *á la Cardine*.

An exciting musical phenomenon of the late twentieth century is the final marriage between the musicologist and the performer. Thanks largely to the popularity of high-fidelity recording, artists with concert caliber imaginations have applied the findings of the musicologists to old music and discovered beauties formerly unknown. Previously, early music was primarily the hobby of learned amateurs and most performances of medieval music tended to be stiff and bland. We now know that their music can be as impassioned as their buildings or their literature. The medieval musicologist has usually claimed that there was no madrigalism in the chant, that it was by nature dignified and sanctimonious. All indications of word

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painting were dismissed as accidental phenomena to be ignored because there were instances of the same designs where no pictorialism was possible. Would we apply the same theory to Bach just because he sometimes applied his baroque vocabulary abstractly and thus ignore the exquisite examples of word painting in his vocal works? Hardly! Medieval warnings against excess dramatics should not be taken to mean that none was intended.

To offer some specific examples, let us first examine a rather simple but lovely chant, the introit for Christmas midnight Mass, *Dominus dixit ad me*.



This entire chant is an ornamentation of the tonic and dominant tones of Mode II (d and f), the falling minor third which characterizes so much of medieval and primitive melody. In the text the Christ Child is speaking from the manger, saying, "The Lord has said to me, 'Thou art my Son: this day have I begotten you.'" The chant begins with an ornamented f, a scandicus with a c beside it to remind the singer that the clivis should be sung as lightly as the two dots that preceed it. Starting the chant with a light ornament shows the gentleness of the baby's voice. The light repercussion of the unisons in the tristropha continue in the same mood. The Vatican Edition dots the single tractulus on *-nus* but neither the St. Gall or the Laon notation suggest it.

All of the notes on *dixit* are also light. The St. Gall scribes used a tristropha with a lowered first member to show the upward leap, the e (*equaliter*) simply reminding the singers to start on the same pitch as the previous note. The Laon notation uses a pes followed by an oriscus but the c confirms the same light movement as in the German notation.

Speaking at a more adult pitch, the Lord is quoted on the ornamented tonic (c), the notes moving in an easy, melismatic flow except for the emphais on *meus* (my) where the pitch not only rises above the central pitch of recitation but the St. Gall scribe added an episema to the clivis on *me*- and used a square pes on *-us*, both of which underline the importance of the word.

The second half of the chant is a variation of the first half. The neume on the first syllable of ego, however, now has an m (*mediocriter*) beside it, reminding us not to be flippant this time because the Lord is speaking. (Notice that since ego and *Dominum* are both part of the Trinity, they share the same melody.) The small *s*, in its old form, stands for *sursum* (rise) and reminds the singer to return to the tonic after the lower cadence on *c*. The final words, *genui te* (begotten you), provide a small, balanced form in themselves—an ornamented tonic on *ge*, an emphatic reminder of the dominant with the bivirga on *nu*, a light ornament on the final syllable at the top of the melody on *-i*, and then a gentle return to the tonic on *te*.

How does one learn all of these irregular variations? One learns them, to use M. Clement Morin's expression, as "little musical words." Each word and each group of neumes in a melisma has its own musical design and personality which soon becomes indelibly fixed into an entity—the word, its melody and its nuance becoming one thought. Once learned, one needs only the reminder from the neumes and the conductor's hand to achieve a unison performance.

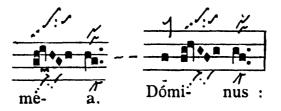


If the concept of using light notes to depict the Christ Child's words seems farfetched, let us look at the communion from the very same Mass. Here the Lord speaks, saying, "In holy splendor, from the womb before the daystar have I begotten you." This time, the notes abound with signs for lengthening—madrigalesque dignity! In the first phrase, only the unimportant syllables lack emphasis as they dip down to the minor third below the note of recitation. Is it entirely an accident that the highest note appears on the word "daystar" and that it is the only note in the chant that leaps out of its original hexachord? If the birth of Christ can be emblazoned in stained glass as a visual aid for the non-reader when plain glass would have let in the light, should we strip the sung text of all drama? Evidently they did not.

The descriptive content of the chant is by no means new at Solesmes. A detailed exposition of the sensitive setting of these two chants appears in a recent publication from the abbey, a volume of writings by Dom Gajard which was published by the abbey in honor of his centenary. (*Les plus belles mélodies Grégoriennes commenteés par Dom Gajard*, Solesmes, 1985.)



Any chant for which we have the old notation shows examples of signs which deny the sameness of all notes and which add designs that underscore syllables and enliven the movement of the melody. In the introit for the Mass for Christmas day, Puer natus est, we find first a square pes on the first syllable of Puer telling us to be deliberate in the announcement of the news and, incidentally, imitating a trumpet signal. The first phrase is an ornamented intonation on d and the letter c turns the neume on the first syllable of nobis into a simple "baroque" ornament. The word *datus* (given) is emphasized by virtue of the caesura which adds emphasis to the first note. The importance of the word *imperium* (government) is shown not only by the square pes which rarely appears at the top of a melody but by the height of the top note, being the only one in the chant that exceeds the original hexachord. The phrase comes to a cadence on the word eius (His) which is melismatic both by virtue of its importance and because it is cadential. Without semiology we would have a meandering nine-note figure. With semiology we have a definite design-a lengthened clivis at the beginning and the end with a turn figure between them which is lightened by the c.



A lovely example of the gracefulness that a simple *tenete* can add to an otherwise common figure appears twice in *Domus mea*. Although on different scale degrees, the same figure is used for *mea* and *Dominus* (being the same). Sung with equal emphasis on each note the melody is common; adding a slight hold at the top note as indicated gives the figure an elegant lilt.

Any chant we turn to would provide examples of the interpretive signals discussed above. To apply the principles, one needs simply to study the tables of neums given in the front of *Gregorian Semiology*, noting the shape of the neumes in their most simple forms and then the multiplicity of variations possible. The Romanum letters are obvious and the changes made by episemas or square forms present no problem once the original design is familiar.

It takes a little more familiarity to identify the neumatic breaks, the caesura, but these constitute Cardine's most important discovery. The fact that the note before the break must be emphasized and slightly lengthened not only throws emphasis on important syllables but, in the case of long melismas on a single syllable, changes what would otherwise be a meandering series of notes into intelligible groups—"little musical words"—groups which incidentally agree with the words which were added later in medieval troping as memory aids.



For example, look at the melisma which is sung on the word *Ave* in this *Ave Maria*. Transcribed into note-heads, this is a formless succession of pitches with almost no sense of direction.



But if it is sung with the note before the caesura slightly lengthened it breaks into four, easily remembered designs. Considering the number of *Alleluias* and cadential melismas in the repertory, this discovery has changed what were once performance hurdles into attractive designs.



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In this melisma on the last syllable of the *Alleluia* of *Dies sanctificatus* the caesuras break the the pattern into four, four-note figures, each one ending with a *tenete* to emphasize its separation from the next pattern, the last one also being extended with the quilisma figure which re-iterates the former *tenete* pattern. The word "break," incidentally, does not mean a break in the sound but a slight lengthening of a note which interrupts the regular flow.



In the gradual, *Constitues eos*, the setting of *principes* (princes) amounts to a series of four-note groups in the type of melisma that was probably intended to serve as a meditation on the word. The first four set the entire word, using a deliberate clivis on *-pes*. The next two groups also end with two deliberate notes, although the Vatican Edition does not accurately reflect the *tenete* in both the St. Gall and Laon versions because the lozenges are used to notate both the punctum (dot) and the tractulus (dash), the first signifying light motion and the last normal speed. The third group warns of a change in pattern with the *tenete* on the first note and it also ends with a *tenete*. The final figure begins with three lengthened notes and, in effect, lengthens the fourth again by virtue of the pressus which repeats the note instead of holding it, and then cadences onto the final note.



In the gradual, *Locus iste*, the final *est* before the double bar provides an excellent example of the deliberate notation of the caesura. It could have been notated as MJMM or JMJJT or JJMJJT or JJMJT or a good many other ways but it was not. St. Gall and Laon agreed almost completely that the first symbol should be the torculus with its deliberate two last notes. A five note ornament with a *tenete* at the end follows. The last seven notes begin by repeating the original three, but the two early manuscripts differ slightly in that St. Gall adds a *tenete* to the third note. Both manuscripts agree, however, that the fourth note should be lengthened and that the last three notes belong together and should not be tied to the fourth as they are in the Vatican Edition. The grouping provides an intelligible design for the melisma and saves it fom being merely an incoherent group of fifteen notes.



The beginning of the introit, *Da pacem*, illustrates a common use of the caesura where it underlines or emphasizes the reciting tone of a chant's mode. This common intonation figure for Mode I shows that the emphasis should be on the second note,

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the first being a sort of up-beat, and the second having both a *tenete* and a caesura. The next two re-iterations of the note are ornamented with the upper half-step. The high notes on the following *Domine* are emphasized by both the caesura and the *tenete*; the middle syllable has simply a familiar ornament, and the final syllable again has a *tenete* on the reciting note as well as the final cadence.



For a final example of the function of the caesura in emphasizing important words and in delineating melodic designs let us examine the first line of the gradual, Viderunt omnes. The first phrase is an ornamented intonation on mi and sol of Mode V. The neumes on Viderunt move at a simple, syllabic tempo as they set us thoroughly in the mode. However, the word omnes (all) is greatly expanded, probably to emphasize its meaning. The first note on *omnes* should be stressed, as shown by the caesura between the first and second notes of the podatus ( $\checkmark$ ) which could have been written in its usual form ( $\checkmark$ ) if nothing but pitch direction was intended. After that first note there follows a nine-note ornament made up of three three-note figures set off from each other by the *tenete* at the end of the first two groups. The word *omnes* is set to this balanced design, -:----- . Except for two neighboring notes, the text fines terrae (ends of the earth) uses only re-iterations of the mi and fa, making it all the more necessary to derive some sort of pattern to avoid monotony. The two-note figures on fines are stressed by using a square pes and a clivis with a tenete, contrasting with the faster melismatic tempo of the preceeding word. On terrae the repetitions are broken into patterns by the two figures marked c, the last three-clivis figure with the *celeriter* in the middle being a common cadence pattern.

This series of articles, intended not only to bring the church musician up to date on matters of Gregorian interpretation, but hopefully to encourage the use of the Church's greatest musical tradition where it may be appropriate in the new service, has been devoted to an expose of the theories of Dom Eugène Cardine on Gregorian rhythm and the interpretive indications inherent in the ancient, unheightened neumes. For the full story, the reader should refer to the following books:

1. Gregorian Semiology by Dom Eugène Cardine, translated by this author from the original Sémiologie Grégorienne. Both are published by Solesmes Abbey.

2. Graduale Triplex, the complete liturgy for the Mass printed with not only the usual square notation for the pitch but with the ancient neumes from St. Gall below the notes and those from Laon above, from which the singer reads the performance directions discussed in the semiology. This is also published by the abbey and it is the best reference source to date for the music history student. It not only contains the old notation, but it agrees with the new liturgy which the *Liber Usualis* does not.

For those who read French, there are numerous other works of interest to the chant lover available. Simply write for the catalogue from Abbaye St. Pierre de Solesmes, F-72300 Sablé-sur-Sarthe, France.

Although these new interpretations may seem complex at first, singing the chant in this manner is infinitely easier for the uninitiated than it was with the former system with its groups of twos and threes. With the new discoveries the chant has a new life, an even more beautiful flow, and hopefully a more authentic sound in its faithfulness to the medieval original in keeping with Solesmes' tradition.

### THE ROLE OF SEMIOLOGY

(This paper was originally presented at a conference on Gregorian semiology, June 26-28, 1988, at California State University, Los Angeles, in cooperation with the Huntington Library.)

During the late nineteen-fifties, the role of semiology in the task of restoring the Gregorian repertory was considered to be a rather bizarre, and indeed to a number of my Roman instructors, a somewhat suspect endeavor. It was definitely the "new kid on the block" at the Pontifical Institute of Sacred Music in Rome during those years. On the international scene, the work of restoration had centered around two opposing camps of interpretation, roughly classified as: 1) the equalist approach and 2) the mensuralist approach. There seemed to be no room for a third approach in this field of endeavor. The road to the acceptance of semiology as an essential tool in the restoration of the Gregorian repertory promised to be long and hard, if not impossible. But then who could have reckoned that Dom Mocquereau had prepared such a worthy successor for this task, as Dom Eugène Cardine?

According to that time-honored saying, "All roads lead to Rome!" It certainly held true for Dom Cardine, as well as for myself. I will begin with my "road to Rome" and then that of Dom Cardine's.

In the summer of 1956, I was summoned one evening to the abbot's office. Before I could come to a full stop before his desk, he began to outline what would become my monastic work to the present day. He calmly announced: "You will make solemn profession on August 6th, then you will go to Sant' Anselmo in Rome to get a licentiate in theology. While you are there, you are to learn Italian so that you will be ready to begin your studies at the Pontifical Institute of Sacred Music. When you have acquired the doctoral degree, you will return to be the choirmaster for the community." With that, I was on the road to semiology and a series of wonderful encounters with the work of Dom Cardine.

My background at St. Meinrad had been that of the equalist approach, but with a vengeance! During the early 1950's, St. Meinrad had a taste of the debate between the equalists' and the mensuralists' interpretations. It was during this time that Dr. Willi Apel spent several months with us in order to make use of our library for work on his now famous book, Gregorian Chant. One of our young members, Robert Snow, was appointed to assist Dr. Apel in his research. Before he came to us, Snow had been a student of Dragon Plamenac at the University of Illinois. Discussions among the musicians of the community during those days were always lively and sometimes even heated. You can get a fairly accurate feel for our discussions by reviewing the final pages of chapter two on "The Problem of Rhythm" in Dr. Apel's book.' What was the role of the Latin accent? What were the subtle nuances of rhythm that the manuscripts seemed to be indicating? How did one realize them in actual performance? How could one teach that to a choir of musically unsophisticated monks for use in their daily sung office? Underneath all that discussion rang the words of Gustave Reese: ". . . while admiring the beauty of the Solesmes interpretations, one should not overlook the fact that they are historically suspect. . ."<sup>2</sup>

In the summer of 1955, our choirmaster attended the Gregorian chant workshop sponsored by the Madames of the Sacred Heart at Manhattanville College. Upon his return, he began a reform of our choral performance practices. For the sake of pedagogical simplicity and clarity, it turned out to be an equalist interpretation, with a vengeance! Every syllable and every note of a neumatic group was to be sung with an absolutely equal duration. Pauses at the mediant cadence of a psalm verse were to receive exactly two counts. We knew he was serious about this when he appeared at

the first community chant practice with a metronome to mark the beats! Needless to say, this particular "reform movement" soon collapsed.

I left for Rome the following year with many more questions than answers about the restoration of the Gregorian repertory. In a sense, I had been well prepared for my encounters with Dom Cardine.

My first encounters with Dom Cardine were the chant rehearsals that he conducted at Sant' Anselmo for the students. During those rehearsals, he brought the Gregorian repertory to a level of vibrancy and spiritual depth that I had never before experienced. At the time, I knew nothing of the semiological principles he was utilizing. I was only aware of their marvelous results. The knowledge would come with exposure to his courses at the institute in the fall of 1959.

I learned of Dom Cardine's "road to Rome" in bits and pieces of private conversations during my annual summer encampments at Solesmes from 1960 to 1963. Dom Cardine saw his mission as continuing the kind of research that Dom Mocquereau was unable to continue. That research was later to lead to what we now call semiology and the conclusions it has made possible. In a very fundamental way, Dom Cardine's mission began with Dom Mocquereau's meeting with Pope St. Pius X in the spring of 1904.

This is how Dom Cardine recounted that meeting to me. During the course of the meeting, the Holy Father asked Dom Mocquereau: "now just how long will it take you to produce a critical edition of the Gregorian repertory?" At that point, Dom Mocquereau took a deep breath and answered: "Oh, about fifty years, Your Holiness. . . . ." Shaking his finger at him, Pope Pius X solemnly replied: "No, it won't take you fifty years, you will do it within the next few years!" The rest is history. The *Kyriale* in 1905; the *Graduale Romanum* in 1908; and the *Antiphonale Romanum* in 1912.

Now, the immediate challenge was no longer that of producing a critical edition of the Gregorian repertory that would be faithful to the groupings and divisions of the neumatic elements as found in the best manuscript traditions. The challenge had become much more pragmatic: what practical method should one use to perform the chants as they would be found in these new editions? It was at this point, that Dom Mocquereau shifted his attention to the pressing problem of providing a method for performing the repertory.

Dom Cardine recounted how concerned Dom Mocquereau was that responsible research continue a critical edition of the repertory. By 1906, Dom Mocquereau had already seen the rhythmical importance of certain types of graphic separation. He gave it the name "division." By this he meant the graphic separation of the last note of the group that precedes the quilisma, the clivis, the torculus, the climacus and so on. The last reference to this line of research in his writings is to be found in the article "La tradition rythmique Grégorienne" which was published in *Rassegna Gregoriana* in 1906.<sup>3</sup> With Dom Mocquereau's encouragement, Dom Cardine quietly continued that line of research. As if in fulfillment of a prophecy, that research began to bear fruits after Dom Mocquereau's response to Pope St. Pius X! Dom Cardine's "road to Rome" was complete when the president of the Pontifical Institute of Sacred Music, Monsignor Iginio Anglès, was successful in obtaining him as instructor of Gregorian paleography at the institute.

During those years after the death of Dom Mocquereau in 1930 until the 1950's, Dom Cardine had continued patiently in his daily round of singing in the monastic choir and studying the written legacy of those chants as it had been carefully collated on those massive comparative tables in the paleography room at Solesmes. As he recounted to me years later, he began to realize more and more just how subtly and with what great precision the living Word of God had become enfleshed in that repertory. Permit me to paraphrase the words of T. S. Eliot in attempting to capture the spirit of those years: "Where shall the word be found, where will the word resound? Not here (amid all the noise of too hastily fashioned theories), there is not enough silence (amidst all the sound and fury of debate, there is). No time to rejoice (in sung prayer) for those who walk among the noise and deny the (Holy Spirit's) voice." My apologies to T. S. Eliot, who wrote his poem "Ash Wednesday" in that fateful year, 1930.

Semiology was indeed the "new kid on the block" in Rome during the 1950's. In discussing the problem of Gregorian rhythm in a book published in 1986, John Stevens could say that "Recent research, notably that of Leo Treitler, . . . has shifted the direction of the enquiry away from 'origins,' as conceived in a somewhat restricted paleographical sense, towards function and context—'the study of notations in the light of their use in particular conditions, especially the condition of a longestablished oral tradition."4 He goes on to say that: "the 'shift of focus' is from paleography as traditionally practiced to semiotics, concerned with the 'functional relationships of sign systems and what they signify' in the social and historical situation of those who use them."5 I witnessed Dom Cardine do precisely that almost thirty years ago! As if echoing some of Dom Cardine's class presentations, Stevens tells us that: "the function of the notation was principally to guide the singers 'in adapting language to melody, and in giving the right sounds to the melodic turns. The earliest notation. . . is directly related to sentence punctuation, the function of which was to help the reader 'bring out the sense of a text as he read it aloud.' Notation was similar to punctuation: 'it did its work by marking off the sense units of the text." I would only add a summary sentence: "in the beginning was the WORD (spoken, or sung); and the WORD was made visible—by the nod of the head, the gesture of the hand, and the flow of the pen."

Dom Cardine's pedagogy taught us to study the neumatic forms, never in isolation, but always according to their function in the verbal context in which they were found. Today, he would find himself no longer alone in that endeavor. He has been joined by such diverse scholars as Berkley Peabody,<sup>7</sup> Walter Ong<sup>\*</sup> and David Hiley,<sup>°</sup> as well as Richard Norton in his recent book entitled Tonality in Western Culture. In Norton's remarks on cantillization, I can still hear fragments of Dom Cardine's lectures on Gregorian psalmody: "(it) was created for the elevated delivery of religious texts of high moral quality. It directs behavior . . . it is the word of God . . . (in it) the individual note is of little importance; nor is the individual word of great importance either. Only the whole thought or sentence, with its caesura and cadence, makes a musical unit. The early Christian singer heard tones as portions of a tonal whole, each needing to be complemented and each pointing in some fashion beyond itself. In this sense the whole was known before the parts. Through grammatical structure, the melos was conceived as a whole framework that housed . . . the sentence itself."10 In the beginning was the WORD, and then the neum!

Drawing on the findings of the psycholinguist T. G. Bever, Edward D. Hirsch in his book, *Cultural Literacy*, describes how language, both oral and written, must function. Since our short-term memory lasts just a matter of milliseconds, our minds cannot reliably hold in short-term memory more than about four to seven separate items. That particular constraint is hard-wired into our systems. We are able to read because we chunk letters into words and words into phrasal units. In fact, all languages must form brief bursts of words in clauses. Every known language divides its sentences into semi-complete clausal units that are small enough to be structured within the limitations of short-term memory. He goes on to add that (1) "the clause is the primary perceptual unit; (2) within each clause we assign semantic relations within major phrases."<sup>11</sup>

For the medieval notator, it was but a short step from the graphic separation and grouping of a text according to sense units for oral proclamation, to that of the graphic separation and grouping of a melodic setting of these texts according to the indivisible melodic units. Producing a truly critical edition of these chants involves, of necessity, a high degree of fidelity to these original groupings. In this context, a favorite *bête noire* of Dom Cardine was the representation of the scandicus flexus in the Vatican Edition as a podatus followed by a clivis. Needless to say, the rhythmic difference is considerable!

An example of this can be found over the accent of the word *Domine* in the verse of the gradual *In Deo speravit*.<sup>12</sup> There we find a neum of seven notes, notated by St. Gall 359 as a scandicus flexus followed by a torculus. The graphic separation occurs at the base of the melodic curve, so none of the notes receives any special rhythmic emphasis. Moreover, both Laon 239 and the Beneventan family have joined the torculus group to the preceding notes to form one single neumatic entity! In the Beneventan notation, the neum is produced by one single flow of the pen! One is led to the conclusion that the notators did not necessarily think only in terms of binary or ternary groups, but also in four, five, six and in this case, of seven notes groups. Which as the experts tell us, is about all that our short term memory can manage.

What Hirsch calls "chunking," Dom Cardine called grouping. An example would be the medieval notator's usual practice of grouping a series of repeated notes at the unison into groups of twos and threes, which we call the distropha and tristropha. Dom Cardine pointed out one example in which one manuscript gave a continuous series of six stropha, another gave two groups of three, and yet another gave three groups of two—each for the same piece! In this particular instance, it was not the rhythm, but visual clarity that had determined the groupings.

Such an oral context for the study of the Gregorian repertory came naturally to Dom Cardine. His teaching day in Rome began and ended with the singing of those chants in the monastic choir at St. Jerome's Abbey. In fact, our monastic ancestors, like the ancients generally, pronounced what they read in an audible fashion. St. Benedict describes a typical scene in Chapter 48 of the Holy Rule: " . . . after Sext and their meal, they may rest on their beds (in the dormitory) in complete silence; should a brother wish to read privately, let him do so, but without disturbing the others."<sup>13</sup> By the end of his novitiate, a novice was expected to have memorized the entire psalter so that he could take his turn at proclaiming and singing the psalms during the divine office. In fact, Benedict insists that: "in the winter season . . . in the time remaining after vigils, those who need to learn some of the psalter or readings should memorize them (RB 8:3)." However, no one was to presume to read or to lead the singing in choir unless he could do so to the benefit of his hearers (RB 47:3)! Thus, intelligent phrasing, good diction, sensitive word rhythm and accurate inflection were all normal expectations of the monastic community with respect to those who would lead its common prayer. David Hiley is on solid historical ground when he remarks that: "Since (the repertory) evolved orally it is not surprising that it relies heavily on melodic formulas deployed in simple structures, all of which could be memorized."14

It was precisely within the context of these simple structures that Dom Cardine led us into the heart of his semiology lectures for first year students. The Italian edition by Dr. Nino Albarosa of Dom Cardine's class notes for first year students bears this out.<sup>15</sup> In Chapter VI of those class notes, you will find how he used those stereotyped patterns to lead us into the principles of Gregorian composition. From the *cursus planus* patterns,<sup>16</sup> found in the psalmodic patterns for the introit antiphons of the Mass and made famous by Pope St. Leo the Great in his homilies, to the more flexible patterns that were developed for use in the psalmody of the divine office and St. Jerome's vulgate translation, the constant theme was the presiding role that was played by the Latin accent.

Yet, in the hands of experienced singers, sensitive to the demands of oral proclamation, these stereotypes were profoundly modified and even abandoned. His example from the codex St. Gall 381 of the psalm text quoniam Dominus spes ejus est<sup>17</sup> is a case in point. In a number of highly revealing cases, that same sensitivity to oral proclamation led the Gregorian composer to preserve faithfully the original Hebrew pronunciation of certain proper names. One of his favorite examples from the monastic antiphonal was that of the *Magnificat* antiphon *Montes Gelboe*, with its use of the "passing tone" form of the special cursive torculus to arrive at the climax of the melodic line on the final syllable of the word *Gelboe*.<sup>18</sup> My favorite example from the Graduale Triplex is that of the 8th mode offertory antiphon Precatus est Moyses.<sup>10</sup> No composer of grand opera has surpassed the rhythmical and melodic treatment of the phrase: memento Abr'ham, Is'ac, Iacob. Yes, Virginia, there are inspiring examples of how to handle a word or phrase, in which the principle accent occurs on the last syllable. Through examples such as these, we gradually came to realize the profound implications of his simple statement that: "fundamentally, it is always the text that inspires the melody and its rhythmic expression."20

In the beginning was the WORD, and then there was the neum. From that perspective, his definition of a neum makes eminently good sense: "A neum consists of all the notes to be found over a single syllable, the rhythm of which is indicated by the manner in which these notes are grouped or separated."<sup>21</sup> This is indeed neither an equalist, nor a mensuralist, approach to the problem of Gregorian rhythm. As his students, we could no longer examine the evidence as isolated markings in a manuscript. From now on, verbal context and oral function had always and everywhere to be taken into consideration.

In his article on notation in the *New Grove Dictionary*, David Hiley notes that although *desagregation* has long been recognized as of rhythmic significance, its usual effect has not been highlighted, namely, that "it may be connected with cheironomic practice, where the goal of the cantor's gesture 'attracts' rhythmic weight."<sup>22</sup> Unfortunately, it is at this point that he leaps to a temptingly simple conclusion. A conclusion based on the work of Dom Gregory Murray in 1963 in which the highly nuanced "rhythmic weights" indicated by the manuscript tradition, are reduced to simple longa and brevis proportions. I can still see Dom Cardine's eyes twinkle as he remarks: "Yes, there is indeed a distinction between so called 'short' notes and 'long' notes—but *some* are shorter, or longer, than *others*! For heavens sake, don't be selective. Be faithful to *all* the manuscript evidence!"

Indeed, I cannot remember a class in which Dom Cardine did not sing and gesture with chalk in his hand on the blackboard, to demonstrate his examples. The opening melisma for the offertory *Ave Maria* was the classic example for discovering the indivisible melodic entities of which it is constructed. Each entity is an indivisible unit of élan and repose: a single movement to the goal of the motion, regardless of the specific number of pitches involved in that rhythmic flow. The notation literally came alive before our very eyes!

One of his favorite teaching devices was to give us a series of pitches, written in stemless note heads on a four line staff, with certain pitches encircled. We were told: "the encircled pitches are rhythmically important. If you were a tenth century copyist at St. Gall Abbey, how would you notate the melodic motive?" Pages 22-28 in Dom Cardine's article entitled "Neum" in Volume X of *Etudes Grégoriennes* is a good introduction to this learning experience. One soon learned that even if all the stemless notes appeared to be equal in value, the act of retracing the neumatic designs soon taught one that "some notes are more equal than others!"

These highly nuanced "rhythmic weights" would produce an extremely complex score in standard modern notation. But we can take solace in the remarks of one of our contemporary composers. Aaron Copland expressed the problem in his Norton lectures at Harvard University in 1951 this way: "I wish our notation and our indications of tempi and dynamics were (as) exact (as the metronome markings seem to indicate), but honesty compels me to admit that the written page is only an approximation; it's only an indication of how close the composer was able to come in transcribing his exact thoughts on paper. Beyond that point the interpreter is on his own."<sup>23</sup>

As Pierre Boulez has remarked: "A Gregorian melody is unquestionably more complex than a tonal melody, since its structural pointing is much more subtle. We cannot speak of a 'progress' from monody to polyphony, only of a shifting of interest that enriches one element and impoverishes another."<sup>24</sup> For medieval singers, these subtle rhythmic nuances were part of the air that surrounded them. Air that resounded with the solemn proclamation of the Word of God in the daily round of liturgical services and the private reading of sacred scripture. It is in this context that Dom Cardine could proclaim his basic stance that: "Fundamentally, it is always the text that inspires the melody."<sup>25</sup> "Both the melody and its notation depend upon the text, are informed by the text, and are modeled on THE TEXT."<sup>26</sup>

"Verbal context" and "oral function" were hallmarks of Dom Cardine's semiology. Unfortunately, we have yet to understand adequately their full implications. John Steven's research, published in 1986, is a case in point. His use of the term "isosyllabic"<sup>27</sup> to express the rhythmic value of a given melodic unit as found over an individual syllable of the text, is to miss seeing the forest because of the trees. Melodic units of exactly the same, equal length, are not the norm. As Dom Cardine has indicated in his article on the "Neum,"<sup>28</sup> the graphic representations of these melodic units indicate an elasticity of these notes in relation to a syllable of average rhythmic weight. The example he gives in footnote 17 is very enlightening: none of the five syllables in *Veni Domine* has exactly the same rhythmic weight, or durational value. Elasticity reigns supreme!

Like the purloined letter in Edgar Allen Poe's famous story, the key to Gregorian rhythm has been there in front of us—all the time! The proof of that stance has been borne out for me by my experience as choirmaster at St. Meinrad. It is a musically unsophisticated community. Music in standard modern notation containing complex rhythmic patterns, will stop them cold in their tracks! Yet, Gregorian chants taught them according to Dom Cardine's semiological principles, will be comfortably sung with all the intricate rhythmical nuances that the text and neum groupings indicate.

Gregorian semiology, as it was taught by Dom Cardine, is what we would call today a "wholistic" approach. An approach that puts us in contact with a standard medieval monastic practice. A practice in which singers were to allow their activity to absorb the whole spirit and body. Their voices were to make audible a poised, attentive spirit dwelling upon the inner meaning of the text, sensitive to its musical nuances—nuances that were at the service of the inner meaning of the text. Remembering Dom Cardine's total engagement in the act of singing, even in the midst of the monastic choir at Solesmes, I am reminded of the assertions made by Walter Ong and Berkely Peabody: "spoken (and sung) words are always modifications of the total, existential situation, which always engages the body. Bodily activity beyond mere vocalization is not adventitious or contrived in oral communication, but is natural and even inevitable."<sup>29</sup> One of the roles of semiology has been to show us some of the meanings of that connection.

As a Benedictine monk, I found Dom Cardine's life and work to be a living commentary on St. Benedict's instruction on how the divine office should be celebrated: "Let us consider, then, how we ought to behave in the presence of God and His angels, and let us stand to sing the psalms in such a way that our minds are in harmony with our voices."<sup>30</sup>

The role of semiology has indeed been that of "shifting the focus" from the study of discrete neumatic forms, to the functional relationships of those forms and what they signify in the context of the verbal meaning to be proclaimed. I am grateful for having had a part to play in Dom Cardine's work. It is a work that can rightly be placed in the context of Article 117 of the Second Vatican Council's constitution on the sacred liturgy: "The typical edition of the books of Gregorian chant is to be completed. In addition a more critical edition is to be prepared of those books already published since the restoration of St. Pius X."

Thanks to semiology, that challenge is being met. Thanks to Dom Cardine's semiological approach, we have come to understand with greater clarity and precision that "in the beginning was the sounding WORD, and that WORD, made visible—by the nod of the head, the gesture of the hand—has been preserved for us, in the flow of the medieval pen."

#### FATHER COLUMBA KELLY, O.S.B.

- 1. Willi Apel, *Gregorian Chant* (Bloomington, IN. Indiana University Press, 1958), pp. 126 ff.
- 2. Gustave Reese in Music in the Middle Ages (London: Dent, 1940) p. 148.
- 3. Cf. the article "La tradition rythmique Grégorienne" in *Rassequa Gregoriana*, 1906, col. 237.
- 4. John Stevens in *Words and Music in the Middle Ages* (Cambridge, England: Cambridge University Press, 1986) p. 273.
- 5. Idem. Cf. footnote 16, p. 273.
- 6. Idem. Cf. footnote 17, p. 274.
- 7. Berkley Peabody in The Winged Word (Albany, NY: Suny Press, 1975), p. 197.
- 8. Walter Ong in Orality and Literacy (New York: Methuen, 1982), p. 61.
- 9. Cf. "Plainchant" in *The New Oxford Companion to Music* (New York: Oxford University Press, 1983), Vol. 2, p. 1456.
- Richard Norton in *Tonality in Western Culture* (Philadelphia: Penn State University Press, 1984), pp. 67-70.
- 11. Cf. E. D. Hirsch, Cultural Literacy (Boston: Houghton Mifflin Co., 1987), p. 34-35.
- 12. Cf. Graduale Triplex, p. 312, line 3.
- 13. Cf. RB 1980 (Collegeville, MN: The Liturgical Press, 1981), p. 249.
- 14. Cf. David Hiley, Op. cit., p. 1452.
- 15. Dom Eugène Cardine, Primo Anno di Canto Gregoriano (Rome: PIMS, 1970).
- 16. e.g., nostris/infunde.
- 17. Cf. Cardine, Op. cit., p. 62.
- 18. Cf. Antiphonale Monasticum, p. 576.
- 19. Cf. Graduale Triplex, p. 318.
- 20. Cf. Cardine, Op. cit., p. 30 ff.
- 21. Cf. Cardine, Op. cit., p. 13.
- 22. David Hiley, "Notation" in *The New Grove Dictionary of Music and Musicians* (Hong Kong: Macmillen, 1980), Vol. 13, p. 352.
- 23. Aaron Copland, Music and Imagination (Boston: Harvard University Press, 1980), p. 49.
- 24. Pierre Boulez in Orientations (Cambridge, MA: Harvard University Press, 1986), p. 36.
- 25. Cardine, Primo Anno di Canto Gregoriano (Rome: PIMS, 1970), p. 30.
- 26. Cardine, Op. cit., p. 35.
- 27. Cf. John Stevens, Op. cit., p. 504
- 28. Cf. Cardine in Etudes Grégorienne (1969), Vol. X, p. 21.
- 29. Cf. Walter Ong, Op. cit., p. 61, and Berkley Peabody, Op. cit., p. 197.
- 30. Cf. RB 1980, Op. Cit., Chapter 19.

### PLAINSONG WITH DOM CARDINE: THE SALICUS



PART ONE: THE STORY

Going back to 1908, when the monks of Solesmes—exiles on the Isle of Wight were at work on what we know as the Vatican Graduale, we are sure that they had the full support of Pope Saint Pius X.

However, we have the right to ask: who was it at the Desclée firm in Belgium who designed the typographical feature which for the past eighty years has succeeded in baffling the singers of chant by leading them into his trap?

When the manuscripts wrote the scandicus:  $\checkmark$ , it was simply to express three equal notes going up:  $\clubsuit$ . No problem here, nor was there one then.

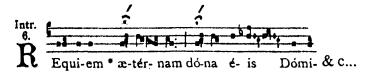
However, when it was the salicus:  $\checkmark$ , the monks in 1908 were kept guessing. The unknown type-designer invented that unfortunate sign, and Desclée's press continues to perpetuate it:

This was the era when Dom Mocquereau, that undoubted scholar but questionable theorist, was releasing his *ictus* into the field of plainsong. Nearly all printed editions of the chant can bear witness to Dom Mocquereau's zeal in fostering the rhythm. But it is a great pity that the little *ictus* sign should have wormed its way into any printed version of the salicus in this way:  $\int$ . Its presence there suggests to every mind that there is a point of rest on that second note. The normal *ictus* can mean just that. Unfortunately, this is a basic interference with the proper rhythm of the salicus.

Dom Eugène Cardine (who died in January 1988, aged 83 years) in his brilliant study of the neums, *La Sémiologie du Chant Grégorien*, chapter XV, has shown conclusively that the point of rest in the salicus is the final, third note. Never the second or middle note.

No wonder that confusion is guaranteed by the sad, injudicious printing of what looks like an *ictus* under the second note. It is a trap! We may well ask: who set this trap?

Recently at Chesham Bois (Buckinghamshire) we celebrated the Requiem Mass for the repose of the soul of that distinguished musician Henry Washington; for many years he was director of the choir at Brompton Oratory. Leading the singing we recognized a number of other distinguished musicians. These cantors embarked upon the introit unwarily, and they immediately fell into the trap.



This simple chant in Mode VI is guided by the two key notes "Fa" and "La." The note "Sol" serves more as a passing note. Each time the salicus occurs the voice should enjoy rising from "Fa" —through "Sol"—aiming to rest significantly on "La." However, those gallant mourners landed heavily—and with unanimity!—on the "Sol," each time. Beauty was sacrificed! Whom could we blame? What should be done? The present writer confesses frankly that, until Dom Cardine's survey of the neums (with Chapter XVI devoted to the salicus) came into his hands, he had been

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unaware of this trap and had been leading generations of younger monks astray. Alas, it had been so in other monasteries as well.

The decline in interest in the chant since Vatican II is now, by the grace of God, working in reverse. Young minds are being captivated by its novelty and instant beauty. The Church should seize opportunities for their instruction and guidance.

Here then is the story explaining how all this chant came about. It goes back to about the year 1830, when a young romantic Prosper Guéranger went wandering along the banks of the River Sarthe in France, musing over the empty remains of the Priory of Solesmes, left unoccupied since the French Revolution. He imagined that those monks could have been singing in that now deserted choir. He would boldly refound that monastery. Which is just what he achieved.

This was the age when each different diocese in France boasted a different version of the Church's chant, nothing being then co-ordinated. (In Britain all Latin music had been swept away at the Reformation.) Guéranger and his monks would take cameras with them and compile records from any libraries in Europe where manuscripts of the chant might still be hidden away.

Thus there grew up at Solesmes that great corpus of plainsong, preserved, collated and finally published in the facsimile reproductions bound into the volumes of the *Paléographie Musicale*. One of these big tomes is devoted entirely to the introit Os *justi*, unearthed from so many centers. Of special interest to England is their Volume XII of the *Paléographie* which illustrates that providentially preserved twelfth century antiphoner of Worcester Priory, invaluable through its direct connection with the chant from Rome.

Those early approaches to the available manuscripts brought one great truth to light: in whatever center and in whatever style of notation they were presented, these chants pointed to one basic tradition.

Then Guido d'Arezzo invented the stave. Before the eleventh century no manuscript of chant was written with notes set on a stave. The singers clearly must have known their chants by rote. Those neums, and their teacher's direction, sufficed to guide their voices. Above all, the neums explained and advertised the rhythm. The advent—and mischief!—of Guido's invention meant attention to the bald pitch of the notes at the expense of the more vital rhythm.

Were we not all perhaps brought up on the dictum of all notes being equal in the chant? The evidence from the neums may well surprise us: the truth emerges that some notes are more equal than others! We will discuss this matter below, under the headings of salicus and coupure. Meanwhile we must return to our monks of Solesmes.

Dom Gueranger had gifted followers. Two such were Dom Pothier and Dom Mocquereau. These two did not perhaps always see eye to eye. In the end it was Dom Mocquereau who worked out his theory of rhythm with the publication in 1908 of his *Le Nombre Musical* with its intertwined arsic *ictus* concluding with the *—ictus* which was thetic. The editions of chant printed by Desclée are seen to abound with this provocative *ictus*.

In more recent years the study of the chant was taken up well and truly by Dom Eugène Cardine, professor at the Pontifical Institute of Sacred Music. This appointment of his involved about one hundred journeys from Solesmes to Rome for the benefit of so many delighted students from as many different countries. In his time, Dom Cardine mastered the entire repertoire of the chant. Proof of this can be observed in the pages of his *Graduel Neumé* in which not only did he insert, by hand, neums from reliable sources set over the square notation of most pieces in the gradual, he also listed (in the margin of the pages) parallel passages for students to verify. These references to other pages in the *Graduel Neumè* are countless. Here is

the scholar leaving no stone unturned.

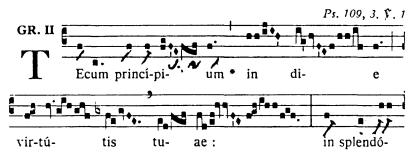
Dom Cardine's *Sémiologie Grégorienne*, first published in Italian in 1970, is a complete study of all the neums from whatever monastic scriptorium. The best sources are from Saint Gall in Switzerland and from Laon and Metz in France.

The reader will now realize how the correct rendering of the salicus which these pages have endeavored to promote is well guaranteed by the integrity and Gallic exactitude of this fine scholar, Dom Eugène Cardine.

This may be the right moment to introduce the *Graduale Triplex* to which the second part of this essay is greatly indebted. Published at Solesmes in 1979, it prints the four-line square-note version of the chant; not only that, for above the stave, hand-written in black, are the corresponding neums from a manuscript in Laon, while below the stave you read the neums in red from a choice of manuscripts from Saint Gall. This exacting task was undertaken by two students working under Dom Cardine. The provenance of each manuscript is carefully noted in each case. Triplex, indeed.

#### PART TWO: PERFORMANCE

This essay began by broaching the problem of the salicus neum. But the salicus is only one area in the wider embroidery of the chant, and the chant's woven beauty calls upon good will and due attention to certain recognized techniques. The cantor leading the singers is responsible for a good intonation. He must also be aware of the phrasing enhanced by coupure. These points will be illustrated below:



The strong single notes in this Advent gradual, *Tecum principium*, are echoed by *in splendoribus* in the next line.



In this Christmas offertory, the Saint Gall notation places a  $\mathbf{\tau}$  over the notes for *Deus*. This means *tenete*, hold back somewhat.



In this Advent communion, *pusillanimes* can mean "chicken-hearted," and these rising phrases seem to mock them! Note the importance of "Sol" and "Re" in this typical phrase in Mode VII. Note also the top "Fa."

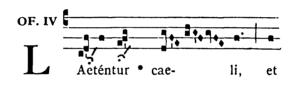
SALICUS



In this same Advent communion, the melody descends for the coming of the Savior, but that splendid rising salicus is the promise of salvation.



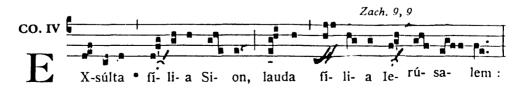
This Advent introit gives a true salicus on *tuam*; but not at *sedes*. This is indeed a case of coupure. Hold the "Do."



This Christmas offertory has a two-fold salicus making a splendid intonation.



The Christmas communion, *In splendoribus sanctorum*, moves from the salicus on *utero*, a humble beginning, to reach the heights in the wide-flung salicus at *luci-ferum*, daystar.



This Christmas communion is a reason for rejoicing: Daughter of Sion, daughter of Jerusalem. The first *filia* is sung to a salicus, as also is *Jerusalem*. But the second *filia* discloses a coupure. The interest is with the second note.

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In this simple phrase in Mode II there is a well-ordered balance. The third note of the salicus brings the voice to the "Sol" which repeats itself before bringing the whole to a cadence on "Re."



This is a unison salicus. Like the standard salicus, it has three notes but the first two are identical. They should be gently repercussed, not just fused. Then the third note should be given some prominence as is the usual salicus. In this Advent selection, the last three notes of *lux* are two repeated "Re" leading to the "Mi" which must shine through.



The intonation begins with a unison salicus. The two notes of this *Alleluia* for the first week of the year must grow into the "Fa" which must be enjoyed before the syllable *-le* is heard. In this last example the neum quite normally spans the interval "Mi"-"Fa." It is worth noticing that in plainsong these half-tones, "Mi" -"Fa" and "Si" - "Do," are natural intervals. They are appreciably wider than the duller semitones in equal temperament. Here is a basic reason for not accompanying the chant with the organ.

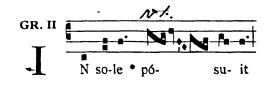
We turn now to the coupure. In French, *coupure* means a suppression or a cutting back or a ditch. Chapter IX of the *Sémiologie Grégorienne* is devoted to this big notion of coupure, which is Cardine's word for a remarkable phenomenon in notation. One becomes aware of this coupure only when looking at the chant in its notation of the original neums, before the advent of the ruled stave. There you can see at once where the "break" occurs in the flow of notes on one syllable. A classical example is the opening phrase of the offertory, *Ave Maria*.



The four instances of coupure are arrowed. What a singer must do can best be explained by analogy. You are driving your car, and there is another ahead of you. When the gap between you becomes at all dangerous you instinctively apply the brake. In the same way the singer will hold back the last note of the group he is singing. His voice gets poised on that last note. The composer has seen that your mind has reason to focus itself right there before moving on.

It is the fourth coupure in this example that deserves closer attention. We are approaching the cadence on "Sol," and the study of cadences is one of the rewards of familiarity with the chant. There is here the visible "break" between that final virga of the long series of notes on *A-ve* and the last note of the group which precedes it. This last note is a "Sol" and the voice can poise itself there intelligently before moving up to the final "La" which leads at once to the syllable *-ve* on "Sol." In this way the whole word *Ave* is rounded off with a feeling of beauty and balance.

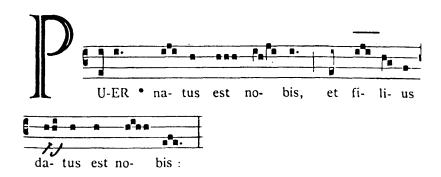
Not all coupures are as significant as this. At the second arrow, where all the notes have been descending and are already geared down, the coupure is less significant. In passing, one should note the intonation; the cantor must give the first two notes due attention.



In this Advent gradual (He placed his dwelling in the sun), the composer has made it very clear he wants a coupure after the third note of *po-suit*. The *ictus* half-way down that climacus has no real meaning now.



The gradual from the Christmas vigil, "Today you will know that the Lord will come," has two coupures marked on the syllable *e* of *scietis*.

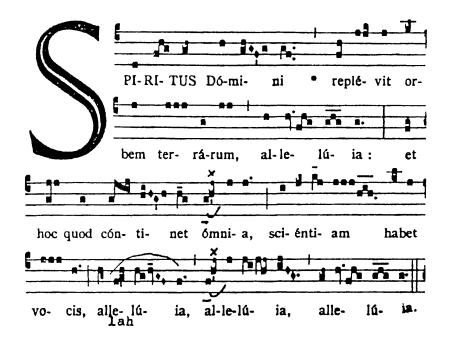


The introit of the third Mass of Christmas, "A boy is born for us, and a son is given to us," has a coupure at *da-tus*. The first note should be poised and then reiterated before rising up in the *pes*.

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We may conclude this brief exposition of the coupure principle with *Gaudeamus*, understanding now why we poise our voices on the second note. It is because of the clear coupure.



This essay began with the puzzle of the salicus. May the Holy Spirit guide us in the singing of chant to the glory of God. The introit of Pentecost shows the pitfalls of the printed version. The puzzling sign is seen here meaning two different things. The only true salicus is in the first *Alleluia*. Elsewhere it is a coupure.

DOM LAURENCE BEVENOT, O.S.B.

## THE LIMITS OF SEMIOLOGY IN GREGORIAN CHANT

(Dom Cardine gave this musicological testament at the third international conference of the Associazione Internazionale Studi di Canto Gregoriano, which took place in Luxembourg in June, 1984. It is printed here with permission of Solesmes abbey and *Gregoriana*, where it appeared in the issue of July, 1988 (No.11). The translation from French is by Virginia A. Schubert.)

This is my last will and testament.

If we consider as the subject of semiology all research which, beginning with the oldest and most differentiated neumatic signs, allows us to discover the truth about Gregorian chant, it is necessary to recognize as authentic semiologists certain Gregorian scholars who worked courageously along these lines for more than a century.

In an interesting article, Professor Hans Lonnendonker had the happy idea of putting in contact several German specialists, as a result of the work of Michael Hermesdorff, organist at the Cathedral of Trier.

In Italy the outstanding personality was without a doubt the canon of Lucca, Raffaello Baralli. More or less quickly, everyone made contact with the monks of Solesmes, who began their research under the energetic leadership of the founder of the abbey, Dom Prosper Guéranger.

Along with the two successive heads of the paleographic workshop of Solesmes, let us name those whose work is of special interest to us here: working with Dom Joseph Pothier was Dom Raphael Andoyer, and with Dom André Mocquereau, two monks whom I was fortunate enough to know at the end of their long careers: Dom Gabriel Bessac and Dom Armand Ménager. Our gratitude and faithful prayers go to these pioneers in the restoration of Gregorian chant and to all the others who preceded us and whose names I would not be able to mention.

Their work constitutes the point of departure for research which was greatly developed later. In 1950, my associate Dom Jacques Hourlier recognized the "intermediary science" which was introduced little by little between Gregorian paleography, a discipline where he himself excelled, and esthetics, where Dom Gajard prefered being placed. In 1954, Dom Guy Sixdenier proposed to call this new science semiology, a name that was immediately accepted.

Even before being called to Rome in January 1952, and to a much greater extent in the years that followed, by profession and by vocation, I dedicated myself to the study of neums, by following the path laid out by Dom Mocquereau, a path which always left me in awe. I believed in it from my first reading of his work, and I still believe in it today!

In the scholarly introduction to his *Palèographie musicale* (p.13), Dom Mocquereau presented the first manuscripts with notation in Gregorian chant in this way: "They are not the ancient masters whose teachings we would like to hear, but the translation into writing of what those masters taught and executed; and from there, for those who know how to read and understand this writing, there is a most perfect expression of 'liturgical cantilenes.' Let us emphasize here the phrase "for those who know how to read and understand this writing." This is exactly what semiology consists of: to learn to read in order to understand what Gregorian chant is.

Happily, I was joined in this search by Dom Luigi Agustoni who edited and published the results of the first research. A little later a courageous cohort of students presented themselves. They agreed to work on subjects that were sometimes very dry, but their efforts usually resulted in significant research papers and doctoral

dissertations. That precious collaboration enlarged the field of knowledge and assured its solidity.

At the same time and in a parallel fashion, a collection of outlines and notes was prepared for the classes at the Pontificio Istituto di Musica Sacra. Along with answers to questions and critiques of readings, these were carefully assembled in great detail by Dom Godehard Joppich and Dom Rupert Fischer into an organized course. This work was called *Semiologia gregoriana*, and was soon translated into French, Japanese, English, Spanish and German.

This was the second layer of semiological progress. It presented in many languages the ensemble of work accomplished over some twenty years. The written symbols of various schools of notation still gravitated to signs associated with St. Gall, but they were at the point of detaching themselves and reclaiming their independence. This does not mean that comparative semiology, which studies the differences and similarities of various schools, will not always be of the greatest interest and will not be able to develop indefinitely. To all of those who helped me in this second period, I send my warmest and most cordial gratitude.

Even before the end of this second period, when it still bore the promise of rich fruits, a third period had already begun. We had hardly explained the meaning of each of the neums in a quick fashion, when a new group of questions was already raised by the scholars: for what use were "particular" signs designated? I mean here signs whose design reveals a choice made among forms which were more or less the same. Thus one moved from the meaning of the sign to its conscious use. Here is the progress made: a step was taken toward esthetics and interpretation. In the *Festschrift* previously refered to (p. 443-457), Dom Godehard Joppich gave good examples of the bivirga placed at the end of a word. Similarly, Professor Heinrich Rumphorst (*Etudes Grégoriennes XIX*, p. 27-88) gave examples of two forms of the pes subbipuncti. Instead of being exhausted, the world of research extended farther and farther.

Moreover, everything seems to favor this growth. The Associazione Internationale Studi de Canto Gregoriano, in its tenth year, has more than justified the happy initiative of its two founders; and the third conference currently taking place gives evidence of the zeal and competence of its members. Our secretary, so well assisted by Signora Albarosa, works generously in various scientific and practical areas, especially in the publication of the *Bollettino* and the organization of the courses in Cremona. In addition, the entrance into official teaching and the imminent growth in this area gives us hope of equal progress in depth. Such a balance sheet leads one to profound gratitude to those who are working so devotedly on preparing the future. I sincerely rejoice that there are people to carry on the work; those who are growing up today and those whose presence we can only guess at who will carry on tomorrow.

Thus Gregorian semiology is alive and well. It finds its roots in the "foundation which is the least lacking," that of the first musical notations, and it develops its branches in the most promising milieu. The knowledge which results must bear fruit. Music is only learned in order to be performed and heard, to become pleasure and praise.

Interpretation is necessary in this last stage of bringing the chant to life, just as semiology is necessary to furnish the raw materials. The two must be in harmony or they will fail to reach their goal. If semiology is not respected, the work is treated without dignity and it is deformed. It can even be betrayed. If interpretation is lacking, interest in it will be lacking also. Success rests in the union of these two necessities.

I have affirmed several times that semiology alone is not enough to determine a

performance of Gregorian chant. It seems to me correct to say that semiology "is not a method" in the common use of the term, but at the same time the use of this expression is sometimes interpreted too strictly. Some have used it with pleasure as if through it they were freed from a bothersome burden. "It is not a method? Then it has no practical use; let us leave to others this scientific pastime!"

It is impossible to be more seriously mistaken! With Dom Mocquereau we have already seen that the study of the original neums is the only way to know Gregorian chant, and elsewhere we have proved that this study is indeed worthy of the name of semiology. The conclusion is evident!

Indeed, what do most of our critics want? They pretend that they are faithful to an ideal which they have judged to be perfect once and for all without ever having made the effort to question its value. Since for them the musical world is a question of taste, they are fully satisfied with the comfortable habits they have acquired and enriched with so many memories of people, circumstances and places that they love. Or on the other hand, they believe that if Gregorian chant is music, it has to be this way or that. Thus they think they are dispensed from all research into what sort of music it is. It is too easy! Therefore they cultivate, to their own liking, oppositions in tempo between phrases or clauses in the same piece, using crescendos, accellerandos or their opposites, instead of respecting the variety of syllables and the diverse values of the notes, allowing the Gregorian chant to express its own true character.

All the proposed rhythmic systems which are more or less measured, falter when compared with the first notations, whose obvious differences cannot be made to agree. The very notion of the neum is inconsistent if it is not attached to the syllables of the literary text, for the graphic signs were not conceived of as rhythmic entities. And what is there to be said about the *coupures* (breaks in the neums), which are evident everywhere in the manuscripts? Only that they are interpreted either more rigidly or with more elasticity, depending on the various schools of notation.

All of that, along with the additions and styles of notation which vary depending on the region, constitute the "semiological givens" that can neither be denied or objected to. These are the beacons of which I have so often spoken!

If we are asked how these well documented "givens" should be applied, it is necessary to answer: "With subtlety!" And once again it is semiology which teaches us. Here is an easy way to prove it. It comes from a research paper presented in 1977 to the Pontificio Istituto di Musica Sacra (No. 33, St. Maria Luigina Pelizzoni, *Festschrift*, p. 494). Codex 381 from St. Gall contains a *versicularium* (a book of verses for the introit and the communion), written around the year 1000, which is entirely in *campo aperto* notation. In it there are only eight examples of the virga with an episema  $\geq$ : four times on the word rex and four times on cor. It is very obvious that the intention was to emphasize these two monosyllables which have a particularly lyric meaning. This is all the more evident because these eight examples always take place in unisonic recitation. However, these two monosyllables, which are sung recto tono, also are notated elsewhere with a simple virga  $\neq$ : three times on *rex* and five times on cor. All in all there are the following occurences: with virga 4 + 4 = 8 and without virga 3 + 5 = 8

There is therefore a numerical equality. But since the use of the episema on the isolated virga is very rare in this document, it indicates the will of the author. This is in contrast with those cases when the absence of the episema can, without fearing an error, be attributed to a lack of attention. In general, the scribe preferred the virga with episema "when he thought about it!" Given these conditions, would it be indicated to sing in a heavy fashion the words that were given the episema and to allow those same words to pass unnoticed among the neighboring syllables when their notation is the simple virga? It would be rigorously exact and would conform to

the notation, but would it conform to an intelligent understanding of semiology?

It is possible to continue and elaborate on the conclusion. The possibility that we have to analyze this rich collection of psalm verses allows us to note specifically in simple examples what we remark so often in ornate compositions of the Gregorian repertoire. There are examples to be found in the first pages of the recently issued volume (No. XX) of *Etudes grégoriennes* in the article *"Les formules centons des Alleluias anciens."* In studying these superimposed notations, one sees here and there, next to very rare variants which are clearly opposed to one another, a certain number of imprecisions which cause us to question the attention of the copyists. The ensemble is quite different from a modern work, which is printed and checked several times to eliminate the smallest differences. In this case however, things that are considered as small defects give a certain kind of interest rather than being a detraction. It is like a play of light and shadow which brings out the proportions of the object admired.

Nevertheless, comparisons of this type are extremely profitable. They help us become more intimately connected with those who wrote the notation. If the Gregorian scholar is able to establish a serious contact with similar presentations, he will abandon little by little those aspects of his way of thinking that are too modern and will be able to acquire a sensitivity and a judgment which is more adapted to the music he wishes to bring to life again.

But then an important question is raised. Of what use are the charts of the "values of neumatic signs" that we are daring enough to publish? Let us recognize first that after having created them patiently, we sometimes hesitate to use them. We do not always know where to place a certain sign even though the value that was assigned to it originally in its context seems evident in most cases. It is the time to repeat once again that neums are not created to be put in a chart. If in spite of all this we do so, it is to facilitate explanations which are requested of us. A well-organized understanding of the most ordinary cases provides a frame which can be helpful, but we must be careful not to be caught in our own traps. Comparisons can be dangerous. The syllabic value placed between the "diminished" and "augmented" is obvious. But one must not add the two "values" on the left to make the equivalent of the "value" on the right or any other similar calculation. That would certainly be false!

The hesitations I make reference to are an obvious proof of our most perfect submission to the manuscript tradition. Indeed it would be very simple to classify automatically in all the examples in our chart all the signs that we run across, but we do not want to give into such facility. That is why in more than one case, after having considered the relationship of values on the positive side and on the negative side, we do not want to decide one way or the other. I remember having advised a student to write her examples of a stropha with episema **2** across the vertical line separating the syllabic value and the augmented value, because I could not decide, nor could she, in favor of one attribution or the other.

All this is to say clearly that we are here treating the limits of semiology with regard to the precise determination of values. Let us understand fully the meaning of this affirmation which does not negate the basic progress in this area made in the last few years, but which forbids all automatic classification of the signs, especially of those which are rare. Progress will no doubt be made in the future, but the very nature of a rhythm which is as free as that of Gregorian chant is associated with an elasticity and a suppleness which is opposed to rigorous precisions.

That is why we cannot accept the new Lagal edition which was invented recently to help chanters, but which, I am convinced, offers more difficulties than advantages, in the theoretical as well as the practical areas. It solidifies values in a deadly way and it is especially unable to translate their variety, because their relationship

one to the other is relative.

Indeed, thanks to our knowledge of the neums, when it is understood that a certain note is more important than neighboring notes, or vice versa, it is easy to understand a certain difference, which it will be prudent to reduce rather than augment, unless there are perfectly clear indications. But how to find a precise dimension for that note, such as would be found in clockmaking, but not at all in Gregorian chant? A greater problem still is how to find a printed form of the sign which can be easily measured by the eye of the chanter? It is bringing minutiae to impractical and inexact levels. I never thought of such a thing during my halfcentury with neums! The most explicit transcription of neums is not in any way rigid; it remains supple and human. In general, if the knowledge of plus or minus in the values of notes constitutes the essential part of semiology, the dose is determined by interpretation. On the other hand, instead of paying such scrupulous attention to the signs of the manuscripts, some Gregorian scholars take too great a liberty with the neums. They clearly separate the syllabic from the melismatic value, affirming that it is impossible to do otherwise. They say that long series of notes cannot be sung syllable by syllable. These series must be clearly heard to be understood.

Let us recognize that examples performed by a virtuoso soloist may be captivating because of the differences established between the slowing down and the hurrying of the sounds. But the beauty of a voice is not enough to be convincing, nor are certain similarities with Eastern music. One cannot manage to bend the notes to these fantasies! The most important thing is to accept this challenge: "If you think that the value of the syllable and the value of the neum can be made equal to each other, prove it!" I willingly return the package to the sender! If a proof must be given, it is through those who attribute different values to the same signs. When we consider a punctum equal to a punctum, and an uncinus equal to a uncinus, proof seems unnecessary. Here we still remain faithful to our total submission to the signs of the first manuscripts! Moreover, if there really was such opposition in the middle ages, would it not be normal to find some trace of that opposition? We are waiting for some evidence that would make us change our mind.

In these conditions, what advice should be given to the gregorianist who knows semiology at least in its broad outlines and who truly wants to sing and have others sing? How can he make the best use of his knowledge without running the risk of running into the reefs that we just mentioned?

Since semiology is the entrance necessary for all knowledge of Gregorian chant, semiology should be allowed to function freely without encumbrances under the pretext that it could stifle or hinder interpretation! Indeed, if from the beginning, before even having studied the original neums, one pronounces exclusions against a melodic reconstitution, a vocal technique, or any other musical phenomenon which would be declared contrary to good taste, to accepted practices, to ease of execution or even to the dignity of the liturgy or of prayer, by that very fact, one places an obstacle to the proper functioning of the semiological science and one establishes oneself as a pretentious judge of an art which is much beyond us. It is the duty of the person interpreting to accept all the conclusions of semiology (that is certainly obvious), even those which are surprising or seem abnormal. However, he will try to harmonize them with his own artistic imagination, for it is impossible to imagine a performance which would be judged by the person doing it as a contradiction or an obvious example of ugliness. It will always be possible to present objections which are historical, liturgical, or physiological, or still others which will allow for fruitful debate. The important thing is to arrive at a fundamental understanding which will permit one to apply to concrete cases principles verified in the rest of the repertoire. That is a true semiological type of reasoning which normally ought to be developed

and enriched, in relationship to conscientious work, revised constantly and without end. This is a program which is too beautiful for a single researcher, but one that an association like ours can establish and carry out.

If we have referred here exclusively to the values of notes in Gregorian chant, it is not to reduce the area of semiology to that rhythmical given. It is because the variety of values constitutes a very thorny question, in which ignorance greatly harms our performances. It goes without saying that nothing will be neglected with regard to the different schools of notation. Everything must be taken into consideration as historical witnesses; we would be guilty if we allowed them to be lost.

It is at this point that the interpreter comes in. He uses various semiological givens in order to establish a living and harmonious whole. He organizes and places in hierarchical order the various parts of the composition and in each one organizes the subdivisions and principal points, going from one to the other down to the smallest details. In this work he will especially have to take note of breaks in the neums (graphic separations), recognizing those which are cesuras and those which, quite to the contrary, represent accents. The difference is one of size because for the most part, the accents join the preceding to the following notes, while the cesuras establish one kind of break or the other, from the tiniest hesitation to a real pause (which nevertheless will not be complete because the breaks are found within the neum and thus one must not destroy its unity). This opposition in the meaning of the breaks indicates rather well the necessity for a true interpretation. This is all the more so because between the two extremes, there are many other breaks which are less clear and which should be treated as articulations of the melody which are more or less important. The role of the interpreter is to make a choice between the various possibilities and how much they can be harmonized. In the last analysis it is his work to judge and decide. Without a doubt he will be able to draw much information from the study of contexts and from the signs used for the neums, but he will also and of necessity need to have taste which is formed by his experience with Gregorian chant.

These varying talents will need to be used when it comes to the immediate preparation of chanters and even more so the actual singing. This will be the time to apply what we have analyzed previously, and even to go beyond it, as must be the case, to create a new living synthesis. If all music begins "beyond the sign," this is even more true of Gregorian chant. Its notation is as supple as its rhythm is free. After having pleaded for respect for the sign, we must beg gregorianists to surpass it!

The danger that is lying in wait for us is too well known: it is to lose oneself in the details which are identified and learned with difficulty and to forget the whole. In particular, the notes that we pay special attention to become too long. They muddy the movement and make it heavy. Excessive attention paid to a thousand details stifles what is spontaneous and natural. One can hear a voice which is constrained by fear and thus does not produce a good sound. In paying attention to the analysis, will we miss the synthesis? To prevent this, we must so greatly assimilate the result of our work that we end up by forgetting technique so that the listener does not hear it either. This ideal will not be achieved from one day to the next and perhaps never completely, but we will have to try for it as much as possible. May good sense guide us and keep us halfway between inaccessible perfection and a routine which is too easily satisfied with anything at all!

Let us accept this obligation willingly because it will reward greatly both those who look to Gregorian chant for pleasure for themselves, their students or their listeners, and those who consider the sung liturgy as praise of God and a source of spiritual life. For all of you, I wish the abundant fruits whose taste I know, and I hope to meet you in a harmonious progression on the path to Paradise. This is my last will and testament.

Solesmes, April 11, 1984

DOM EUGENE CARDINE

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