

understanding both the rhythm and the melody of a Gregorian composition. The greatest attention will always be accorded to an analysis of the text in the study of the musical examples

## 1.2. THE MELODY AND ITS STRUCTURAL LAWS

The vocal interpretation of a piece of Gregorian chant rests essentially on the text/melody symbiosis of that particular piece, clarified by the mediation of the neume designs. Therefore, the attention given to the demands of the text should be followed by a study of the structural laws proper to that melody.

This section will treat of the laws that relate to the modal structure of a Gregorian melody. The melodic/verbal composition of a piece is articulated and ordered by a succession of poles of tension and relaxation. In each piece, the network of musical elements differentiated by the rhythmic articulations – each with its own proper character – determines a certain number of poles of various degrees of importance according to the scale degree they occupy in the melody. This ensemble of musical elements confers its specific mode and modal structure on the melody.

The determination of the sounds that serve the melodic/verbal *movement*, or rhythm, and also characterize the modal structure of a piece, are not the product of pure fantasy or caprice, but rest upon a certain number of laws that are present in the traditional melodic formulas, and are employed with great flexibility.

These traditional melodic formulas that establish the privileged relations between the specific scale degrees and the important rhythmic junctures, do not constitute a static and abstract group, but are rather vibrant musical organism, with very concrete movements of tension and relaxation. The intervals they contain frequently move in a single direction. Indeed, in example 1a, the ascending melodic/modal relation *re* up to *fa* is not equivalent to the descending relation *fa* down to *re*. The connections between the ascending *re* → *fa* and the descending *fa* → *re* represent two different melodic/modal behaviors, two different modes. It is precisely the diversity of these melodic/modal behaviors that is at the origin of the variety of melodic/rhythmic tensions.

For the behavior *re* ascending to *fa*:

1a DO-MI-NUS tamquam o-vis ad vi-ctimam ductus est, et non a-pé-ru-it os su-um. AM 414

The Lord, like a lamb led to sacrifice, did not open his mouth.

For the behavior *fa* descending to *re*:

1b Sana, Dómine, ánimam me-am, qui-a peccávi ti-bi. PsM 100

Heal, O Lord, my soul, for I have sinned against you.

Here, the interest is only about the orientation of the melodic/rhythmic movement, and not about the source mode from which the melody has its origin. The antiphon *Sana Domine* is certainly derived from the source mode RE. The four accents on *fa* correspond to the tenor of the second mode in the Carolingian Octoechos.

From the point of view of the *rhythmic* relation between the sounds and the constitution of the rhythmic/verbal units, the direction of the melodic movement is of primary importance. One needs to observe if the melody ascends or if it descends in its melodic/verbal course (a purely melodic course in the case of a melisma). In the last example, the conclusion of each of the four initial words / *Sana* / *Domine* / *animam* / *meam* / always correspond to a melodic descent, associated with a slight delay, over the final syllable of the word. But the melodic/verbal unit *quia peccávi (tibi)* expresses itself above all by a strong ascent toward the accent, followed immediately by a small melodic inflexion on the final syllable.

This concern for the rhythmic relationships engendered by the descent or the ascent of the melody is essential for its proper performance<sup>7</sup>. If one would

...to the etymology of the melody from the point of view of its evolution from the

neglect it, the modality would remain static and purely theoretical. In fact, ascending and descending melodies often constitute the determining factor for the rhythm, even if the other parameters (duration, intensity and timbre) maintain an influence.

The ensemble of these questions constitutes modality, the science of the Gregorian modes, also called *modology*<sup>8</sup>. An introduction to the interpretation of Gregorian chant cannot ignore this area, even as vast and complex as it is. However, to give to the subject the place it deserves would considerably overburden this book. It has been decided to give priority to the study of the neumes and the rhythm, without excluding the modal aspects. Thus one is limited to an exposition of the principal concepts of modality in order to show the influence of the modal laws on the interpretation of the Gregorian compositions. Such a knowledge is indispensable for the interpreter who wishes to acquire an adequate knowledge of these melodies and the innumerable rhythmic nuances signaled by the *in campo aperto* neumes, and thus be able to translate them into sound with all musicality that is proper to them.

#### FUNDAMENTAL CONCEPTS AND THE MODAL LAWS

Modality pertains to the study of the modes, that is to say, to analyze and describe the concrete manner in which each piece comports itself in its melodic plan. To attain this goal, it is first of all necessary to know the structures by which a melody can be organized.

##### 1.2.1. The three archaic modes

In certain pieces, the melodic discourse is constructed around a single note, more or less ornamented by notes above and below. The melodic movement

<sup>8</sup> The general term *modology* attends to all the scientific questions pertaining to the modal structures. It comprises the study of the scales and the writings of the ancient theoreticians. *Modality*, a term better known in Latin countries, more properly concerns itself with the way a Gregorian piece exists from the point of view of its structures and its melodic vocabulary. In some ways, one can choose one or the other term, according to the context.

is clearly orientated towards its final, which coincides with this single pole of the composition. From this point of view, there are only three scale degrees possible for the melodic structure. Each of these corresponds to one of the three *mother-notes* (*cordes-mères* in French) of the modes called "archaic." These mother notes of the composition are distinguished by the intervals pertaining to the neighboring scale degrees. The modality rests essentially on the interval relationships between the pitches, but also considering the tension relationships, that is to say, the phenomena of attraction, repulsion or of conduction that is developed between the different pitches of a melody.

In spite of the anachronism that this represents, it is convenient to designate the three archaic modes according to the procedure of solmisation of the degrees of the diatonic or pentatonic scale<sup>9</sup>. These are called:

1. The mode of DO. It is recognizable as a descending series by the succession of a minor second and a major second (DO down to *si* to *la* or *fa* down to *mi* to *re*) or, in the pentatonic scale – more appropriate to the archaic modes – DO down to *la* to *sol* or *fa* down to *re* to *do*. At the upper end, one finds the succession DO up to *re* to *mi* or *fa* up to *sol* to *la*, or even *si*<sup>b</sup> up to *do* to *re*.

The antiphons of the Liturgy of the Hours contain vestiges of this archaic modality, characterized by its single-pole structure.

2  PsM 177

*You are God, who do wonderful deeds.*

The *do* is the only structural degree of this antiphon. It is also the degree of the cadence and the tenor of the psalm tone<sup>10</sup>

<sup>9</sup> The pentatonic scale: *sol - la - DO - RE - MI (-fa)*.

<sup>10</sup> elementary knowledge of the laws of psalmody. For the fundamentals of (1975)

This archaic mode has been baptized as the "DO mode" after the publication of *PsM* (1981). In example 2, an embryo of a melody appears around the single pole of attraction DO: the melodic movement binds itself to the rhythm of the text, from which it receives its entire signification.

2. The mode of RE. It is recognizable as a descending series by the succession of a major second and a minor second (RE down to *do* to *si* or *sol* down to *fa* to *mi* or, according to the pentatonic scale, RE down to *do* to *la*, or *sol* down to *fa* to *re*). At the upper end, one finds the succession of a major second and a minor second (RE up to *mi* *fa* or *sol* up to *la* to *si*<sup>b</sup>).

3  GS 106

*It is good to give praise to the Lord, our God.*

In this simple but exquisite example, the scale degree *re*, the single modal structural pitch, is also the cadence and the recitation pitch for the psalmody. Here again, the entire dynamic of the melody proceeds from the accents of the text.

3. The mode of MI. It is recognizable as a succession of two major seconds in descending order (MI down to *re* to *do*, or *la* down to *sol* to *fa*, or *si* down to *la* to *sol*), and as a succession of a minor second and a major second in ascending order (MI up to *fa* to *sol*, or *la* up to *si*<sup>b</sup> to *do*, or *si* up to *do* to *re*).

4  AM 111

*I cried out and he heard me.*

The single structural degree of this antiphon – written on *la* instead of MI – is clearly indicated by the final MI (*la*) to which it is tied and which also functions as the recitation pitch for the psalmody.

The three archaic modes, whose principle characteristics have been shown here, predate the system of eight modes of the Carolingian Octoechos, which are attested in the West from the end of the VIII<sup>th</sup> century<sup>11</sup>.

### 1.2.2. The eight modes of the Carolingian Octoechos

In contrast to the archaic modes, characterized by a single-pole structure, the system of eight modes of the Carolingian Octoechos is founded on a bipolar melodic structure and the relationships of musical tension that develop between these two poles.

With the exception of the pieces pertaining to the archaic modality, the bulk of the Gregorian repertory was divided in the Middle Ages into four fundamental categories, according to the concluding scale degree of the piece.

#### *The first category: the Protus*

The Final is *re* (with a whole step followed by a half-step above it: *re* up to *mi* to *fa*) or, in transposition, *la* (up to *si* to *do*) or *sol* (up to *la* to *si*<sup>b</sup>). Cf. Co. *Dominus dabit ... fructum suum*, GT 18.1; In. *Exaudi... alleluia*, GT 241.1;

#### *The second category: the Deuterus*

The Final is *mi*, in transposition, *si* or *la* (with *si*<sup>b</sup>). Of. *Benedixisti... tuae*, Cf. GT 23.8; Co. *Tollite... eius*, GT 339.1; Ant. *Apud Dominum... redemptio*, GT 678.1.

#### *The third category: the Tritus*

The Final is *fa* or, in transposition, *do* (always with a half-step below it). Cf. Co. *Exsultavit... eius*, GT 29.2; Co. *Ecce Dominus... magna*, GT 26.7.

<sup>11</sup> Cf. the "Psalter of Charlemagne" or the Carolingian Psalter, [Tonary of Saint-Riquier] Paris 1620, p. 25ff.

#### *The fourth category: the Tetrardus*

The Final is *sol* and, theoretically, in transposition, *do* (always with a whole-step below it: *sol* down to *fa* or *do* down to *si*<sup>b</sup>). Cf. In. *Ad te levavi... confundentur*, GT 15.5.

The distribution of Gregorian pieces into these four fundamental categories, however, is far from being always evident. The value of this classification, used by the medieval theoreticians, should not be overemphasized. The existence of transposition already shows that the determination of a mode is not primarily tied to the name of the notes, but rather to the musical intervals that effectively exist between the sounds. Sometimes it happens that one is able to assign the same piece to two different modes, if the succession of the melodic intervals does not differ substantially from one category to the other. Thus the distinction reduces itself to a simple change of writing by the use of transposition. A comparison of the two versions of the responsorial chant *Ubi caritas* (GT 168 and 887) provides an illustration of this. One of these is attributed to the Tritus (6<sup>th</sup> mode) and the other to the Tetrardus (8<sup>th</sup> mode), even though they are composed of substantially the same intervals.

Each of the fundamental modal categories presented above are then subdivided into two sub-categories: the one is called the *authentic* and the other is called the *plagal*. Indeed, these constitute the official eight modes that the Vatican edition always indicates by using Roman numerals at the beginning of these pieces of chant<sup>12</sup>.

What has been said about the relativity of the four fundamental categories applies *a fortiori* to the sub-categories. What is important is not so much to abstractly assign a particular mode to a given piece, but to be able to recognize the modal tensions that are born of the relations between the melodic scale degrees. This phenomenon essentially results from the *bipolar structure* that in principle characterizes each of these modes. In the Carolingian Octoechos, the first pole,

<sup>12</sup> Before the Vatican edition there were other ways of indicating the modes.

the Final of the piece, enters into a relationship with a second pole, constituted for the most part by the recitation note of the psalm tone.

However, from the historical point of view, this bipolarity should be considered in the opposite sense. In fact, the psalmodic tenor often appears as the principal structural degree. It is in turn, joined to a secondary pole of attraction or of tension: the lower Final. Thus one can understand why in certain pieces, the Final seems to exercise a very limited structural role and sometimes it is not even heard until the last moment. For example: Ant. *In paradisum*, GT 881.3; Ant. *Caro mea*, GT 702.1; In. *Lex Domini*, Gt 86.1; In. *Ego autem in Domino*, GT 111.4.

The psalmodic Tenor is decisive for determining the structure of an antiphon. The structural affinity between the antiphon and the psalmodic Tenor often seems to have been willed by the theoreticians. In this case, one can rightly speak of a "mode-tone;" that is to say, that a given piece has its own mode, its own manner of being, with a corresponding psalm tone: it deals with a sort of "modal-tonal composition"<sup>13</sup>.

If one considers the movements between the two structural poles of the different modes, the psalmodic Tenor and the Final, one obtains the following table. It is a theoretical chart of the Carolingian Octoechos, always subject in practice, to more or less notable exceptions. The descending relationship between the psalmodic Tenor and the Final of a piece is graphically represented by the sign

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1 <sup>st</sup> mode:	authentic Protus	la \ re	Ant. <i>Puer</i> , GT 138
2 <sup>nd</sup> mode:	plagal Protus	fa \ re	Ant. <i>Sitivit</i> , GT 700

<sup>13</sup> Cf. L. AGUSTONI, "Gregorianischer Choral", *Musik im Gottesdienst*, Regensburg 1986, 7.2.4 "Die Psalmotonmodi", p. 287; one will find an allusion to the terminology in A. TURCO, *Il canto Gregoriano II* Roma 1987, p. 182.

3 <sup>rd</sup> mode:	authentic Deuterus	si \ mi <sup>14</sup>	Ant. <i>Ecce Dominus</i> , GT 539
4 <sup>th</sup> mode:	plagal Deuterus	la \ mi	Ant. <i>Crucem tuam</i> , GT 175
5 <sup>th</sup> mode:	authentic Tritus	do \ fa	Ant. <i>Domine</i> , GT 885
6 <sup>th</sup> mode:	plagal Tritus	la \ fa	Ant. <i>Alleluia</i> , GT 852
7 <sup>th</sup> mode:	authentic Tetrardus	re \ sol	Ant. <i>Caro</i> , GT 883
8 <sup>th</sup> mode:	plagal Tetrardus	do \ sol	Ant. <i>In pace</i> , GT 703

### 1.2.3. The archaic psalm tones restored

Recent studies in Gregorian modality have shown that the correspondence between the principal structural degree of a piece and its psalmodic Tenor has been faulty. The modal assignment used by the Carolingian Octoechos has been almost uniquely based on the Final and the ambitus of the melody, without consideration of the overall structure of the piece. Indeed, the Ant. *Audivi vocem* (GT 689) has been attributed to the 2<sup>nd</sup> mode, even though its modal structure is not *fa* descending to *re*, but rather *sol* descending to *re*. In the same way, the antiphons *Habitabit* (GT 680) and *Inclinate* (GT 179), attributed to the 4<sup>th</sup> mode, show rather the structure *sol* down to *mi* rather than the structure *la* down to *mi*, as proposed by the Carolingian Octoechos.

For the first time, the edition of the *PsM* (1981) has taken into account this modal disagreement, by creating modal categories that are more precise for these antiphons. The antiphons in Protus, having the structure *sol* down to *re* (or, in transposition *re* down to *la*), have received the indication II\*, and the antiphons in Deuterus, having the structure *sol* down to *mi*, have the indication IV\*. After

<sup>14</sup> The Vatican gives a *do* for the psalmodic Tenor of the 3<sup>rd</sup> psalm tone, which does not correspond to the witness of the most ancient manuscripts. The "Commemoratio brevis de tonis et psalmis modulandis" (M. GERBERT, *Scriptores ecclesiastici de Musica...*, t. I, S. Blasius 1784, new edition Hildesheim 1963, p. 213-229), of the second half of the IX<sup>th</sup> century, clearly indicates the Tenor as *si*. In the *AM* of 1934, this original Tenor has been restored (while also maintaining the "tonus recentior" with Tenor *do*, "ubique receptus et diuturno usu probatus" *AM* 1213(l). Only the *si* is used in the *PsM* (1981).

some decades, it has become the usage to name the first "Protus-at-the-fourth," because of the interval of a fourth from *sol* down to *re*, and the other the "Deuterus-at-the-third," because of the interval of a third from *sol* down to *mi*.

The *PsM* also contains the indications for the modes and tones C, D, and E, tied to the three archaic modes presented above.

The antiphons of this type, that do not fit into the categories of the Carolingian Octoechos, are found, in the *PsM*, with an authentic psalm tone, coherent with its composition. Indeed, some of these melodies are already known; others are published for the first time. In the *PsM*, all the psalm tones, traditional or recently restored, are put together on pages ix and x: we reproduce these on the following pages.

4a

### MEDIATIONES IN TONIS PSALMORUM

The musical notation consists of eight staves, each representing a different psalm tone. Each staff begins with a clef and a key signature. The notes are written on a five-line staff with various rhythmic values. Below each staff is the Latin text: "Hic tonus sic flécti-tur, † et sic medi-á-tur: \*". The text is written in a Gothic-style font. The staves are labeled with Roman numerals I through VIII on the left side.

per.  
Hic tonus sic flécti-tur, † et sic medi-á-tur: \*

E  
Hic tonus sic flécti-tur, † et sic medi-á-tur: \*

C  
Hic tonus sic flécti-tur, † et sic medi-á-tur: \*

IV  
Hic tonus sic flécti-tur, † et sic medi-á-tur: \*

D  
Hic tonus sic flécti-tur, † et sic medi-á-tur: \*

PsM IX

One can ask if this recent development constitutes a progress in all respects. The response merits some nuances. From the point of view of the structural affinity and the reciprocal dependence between an antiphon and its psalmodic Tenor, the solution adopted by the *PsM* seems the more logical and the more coherent. To judge the musical interest of this "systematic" restoration, it is necessary to envisage the entire context, antiphon and psalm tone. The use of the same recitation pitch for both the antiphon and the psalm tone can engender an impression of monotony, while the alteration and the new placement of the psalmodic Tenor at a higher pitch, as in the Carolingian Octoechos, introduces an agreeable note of variety and of interest by way of contrast. To form an opinion on this question, one can chant the Ant. *In cymbalis* with some psalm verses; a first time according to the version of the *PsM* 258 (the E tone), then according to what is indicated in *AM* 79 (tone IV). After the antiphon, the Tenor at the fourth (*AM* 79) certainly gives some relief for psalm 150, the text of which invites one to praise God with the sound of instruments<sup>15</sup>. A similar comparison can be carried out on the antiphon *In mandatis* with psalm 111, according to the versions of *PsM* 304 and of *AM* 126.

#### 1.2.4. The notion of a structural degree:

**principle structural degrees, secondary structural degrees, complementary and subsemitonal ones<sup>16</sup>, other important modal degrees.**

When one analyzes the melodic structure of Gregorian pieces, one finds that few pieces limit themselves to just two structural poles, the Tenor and the

<sup>15</sup> There is another solution, that of chanting the psalm at the third [a note by Dom Saulnier].

<sup>16</sup> The term "subsemitonal" was popularized by P. WAGNER, *Einführung in die Gregorianischen Melodien*, 3 vol. edition Leipzig 1911-1921: in Gregorian chant, it signifies the scale degree under which one finds a semitone: *do, fa, si<sup>b</sup>*.