

1-1-1988

## Solmization with Guidonian Hand: A Historical Introduction to Modal Counterpoint

Rosemary Killam

Follow this and additional works at: <https://digitalcollections.lipscomb.edu/jmtp>

---

### Recommended Citation

Killam, Rosemary (1988) "Solmization with Guidonian Hand: A Historical Introduction to Modal Counterpoint," *Journal of Music Theory Pedagogy*: Vol. 2, Article 11.  
Available at: <https://digitalcollections.lipscomb.edu/jmtp/vol2/iss1/11>

This Article is brought to you for free and open access by Carolyn Wilson Digital Collections. It has been accepted for inclusion in Journal of Music Theory Pedagogy by an authorized editor of Carolyn Wilson Digital Collections.

# SOLMIZATION WITH THE GUIDONIAN HAND: A HISTORICAL INTRODUCTION TO MODAL COUNTERPOINT

ROSEMARY KILLAM

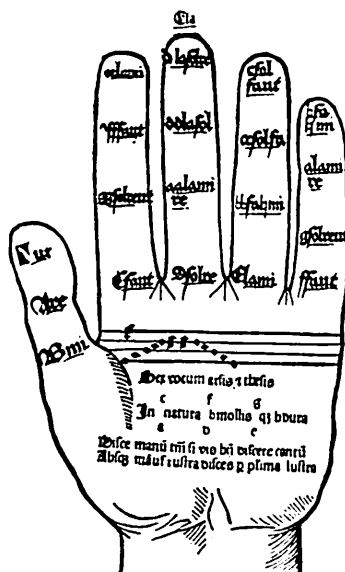
## BACKGROUND

The music of the Renaissance and Middle Ages has become an increasing part of contemporary repertoire. Nearly all music departments have ensembles devoted to the performance of early music; vocal groups devoted to the singing of madrigals and pre-tonal sacred music are not uncommon at the high school level. Modal counterpoint serves as the traditional introduction to this style for undergraduate music students, and provides unique challenges and benefits to those who will undertake its study. Undergraduates often have little experience in or appreciation of the musical aesthetics of the sixteenth century. Most undergraduates have difficulty relating to Renaissance modality; many seem first to regard it as incomplete tonality. On the other hand, as the tide of contemporary music carries us ever farther from the common-practice period, modal counterpoint offers students the opportunity to experience and manipulate a style that is the culmination of an extensive development of many centuries, yet not cast in the mold of tonality. In addition, late Renaissance sacred music, as characterized by Palestrina, is accessible to students through their own vocal performance.

What form of solfege should be used for modal literature? All of us have vague memories from music history of the Guidonian hand, as illustrated in Figure 1. Most of us have attempted the principles expounded by Morley in his *A Plain and Easy Introduction to Practical Music*, only to decide that his method of solmizing is neither plain nor easy at this point of historical remove.

The texts explaining solmization are primarily in Latin, although increasingly available in translation, and are far from clear at first encounter. However, it is the premise of this study that solmization is not impossibly difficult, indeed not at all beyond the grasp of an undergraduate modal counterpoint class, if the techniques are presented in an appropriate sequence. When one considers that solmization and the Guidonian hand

**Figure 1. Guidonian Hand.**



252

Just what was the level of skill developed through solmization? Guido, himself, left a graphic account of a specific instance of the success of his methods in his "Epistola de ignoto cantu" of c. 1030:

. . . I will set forth the situation in full. John, holder of the most high apostolic seat, who now governs the Roman Church, hearing of the fame of our school and greatly wondering how, by means of our Antiphoner, boys could know songs which they had never heard, invited me through three emissaries to come to him. . . . The Pope, accordingly, was greatly pleased by my arrival, conversing much with me and inquiring of many matters. After repeatedly looking through our Antiphoner as if it were some prodigy, and reflecting on the rules prefixed to it, he did not dismiss the subject or leave the place where he sat until he had satisfied his desire by himself learning to sing a verse without hearing it beforehand, thus quickly finding true in his own case what he could hardly believe of others (trans. Strunk, *Source Readings in Antiquity and the Middle Ages*, p. 122).

Other writings of Guido imply that the real advantages in his methods involve students learning music without having heard it first, sparing them the necessity of learning by rote.

Solmization and use of the hand provide this independence to twentieth-century musicians. I have found that development of a proficiency level at which music can be solmized, after a preliminary scan for points of mutation, is sufficient to add greatly to students' understanding of the contrapuntal techniques employed in the music.

The actual system of interlocking hexachords and assignment of pitch sequence to a position on the palm of the hand seem unnecessarily complex in the twentieth century; some consideration of the development of music may help demonstrate the logic of the solmization system.

We of the twentieth century are used to reliable constants, such as tuning forks, metronomes, the ever present visualization of scales on a keyboard—indeed the standardization of the five-line staff and notation printed on it. We need to bear in mind that Guido was of the period of heightened neumes and that he advocated the staff as a way to determine the pitch of notes. He lived more than a century before the work of Leonin and Perotin. Indeed, there is good reason to question whether Guido

## JOURNAL OF MUSIC THEORY PEDAGOGY

himself originated the hand and the solmization system. Certainly some of the elements were developed later by others. However, writers for the next 500 years attributed these developments to him. If his authorship is not historical, it was an accepted historical fact for many theorists who followed him.

Given the ambitus of Gregorian chant, the octave was not an essential interval. Octaves were rather the result of changed and unchanged voices singing the same music, or an interval compounded from modally defining fourths and fifths. What was of the utmost importance was specifying the location of the half-step: the intervals encompassed by chant could be compounded of whole tones and semitones, but their relationship was of prime importance so that the larger intervals could be accurately specified. What was needed was some constant arrangement of semitones and whole tones, at least in some partial pattern, and this was not supplied by the intervals encompassed in the modal fourths and fifths. Given the state of affairs, does not the identical interval pattern of G up to E and C up to A look helpful? The hexachords with a lowest pitch of C were known as "natural"; those with a lowest pitch of G were known as "hard." With the addition of the "soft" hexachord on F, the system was complete. The "hard" and "soft" hexachords were named for the shapes of B-flat (round = soft) and B (square = hard). The hexachords in the gamut are illustrated in Figure 2. Successive generations of theorists proposed and discarded additional transposed hexachords, but the F, G, and C hexachords were those most generally accepted. Hughes (p. 46) comments:

Medieval practice, as well as theory, used the recta gamut with its hexachords and syllables as the basis for learning and teaching music; the pronunciation of the syllables was a means, perhaps the only one of insuring that the correct notes were sung. If the accidental serves to indicate where *mi* and *fa* lie, then in a broader sense it serves to show which of the hexachords is in use . . . .

Figure 2. Hexachords in Gamut



Nearly 500 years after Guido, Tinctoris in his *Expositio Manus*, began Chapter One with an extremely detailed justification for the Guidonian hand. One is tempted to discern in his explanation the controlled annoyance of an experienced teacher at having to explain, once again, why such an obvious aid is useful, and his grim determination to make such a thorough justification as to obviate any subsequent discussion of the matter:

The hand is a short and useful lesson, fully showing the characteristics of sounds in music. The term “hand,” however, is used as the container for the contained, for any hand, that extreme member placed at the end of the arm on the human body according to physiologists, contains that lesson in the tips and joints of its fingers.

(There follows a paragraph naming and describing each finger and the number of joints it has.)

Although this lesson can be taught in either hand, it is taught rightly, however, in the left by everyone, for the reason that the places in the left hand are more easily indicated by the index finger on the right, even though some people most aptly indicate the places on the thumb of the left hand with the index finger of the same hand and the places on the other fingers similarly by the thumb of the same hand; wherefore they may use only one hand, that is, the left, in the instruction of this particular kind of lesson (Seay, “The *Expositio manus* of Johannes Tinctoris”).

Although it is possible to learn to solmize without use of the Guidonian hand, my experience has shown the hand to be a valuable learning aid. Beginners can get lost in the overlapping hexachords; the hand provides a constant location and reference point.

### RENAISSANCE TREATISES ON SOLMIZATION

Solmization with the Guidonian hand was a central method of learning for over 500 years. Tinctoris ended his *Expositio Manus* with this

## JOURNAL OF MUSIC THEORY PEDAGOGY

statement: “. . . it is evident that no one outstanding in music escapes without a knowledge of the hand.” Naturally, the technique of solmization varied somewhat in its description from one treatise to another. The three treatises chosen as the basis for this study were selected for their clarity in translation, their historical position, and their influence on sixteenth-century music.

Johannes Tinctoris was born c. 1435 near Nivelles, and died c. 1511. He served at various Italian courts and was known for both his compositions and twelve treatises, of which *Expositio Manus* is the second, published originally sometime after 1477. Franchinus Gaffurius was born in 1451 and died 1522. He, too, served at a number of Italian courts, having been ordained a priest in 1474. His *Practica Musicae* was first published in 1496. Andreas Ornithoparchus was born in Meiningen, c. 1490, and studied at a number of European universities in the early part of the sixteenth century. His *Musicae Activae Micrologus* was published in 1517 and went through a number of editions. John Dowland's translation of it appeared in 1609.

Tinctoris is generally described as a conservative writer. Both Gaffurius and Tinctoris were in Naples during the period 1478-80 and are presumed to have become acquainted. Tinctoris' writing is thought to have influenced the younger Gaffurius. Gaffurius' writings were extremely widespread throughout Europe, being printed in five editions between 1496 and 1512. Gaffurius undertook a ten-year-long study of theory at various centers in Italy (1472-1482) before settling in Milan. He was acquainted with a wide range of theoretical writings, including that of Plato and other Greek writers, whose works he had translated for his own use. He was acknowledged by contemporaries as an erudite theorist. The work of Ornithoparchus is included because it shows a basic agreement from a later source with the work of Gaffurius and Tinctoris, inasmuch as he acknowledged both Gaffurius and Tinctoris in a long list of influential writers. Ornithoparchus was known not only through the multiple editions of his work, but also through the incisive translation by Dowland, published nearly a century after its first appearance. Dowland's translation of a section on the use of the monochord is biting even at this historical distance:

The monochord was chiefly invented for this purpose, to be judge of musical voices and intervals: as also to try whether the song be true or false, furthermore, to shew haire-braind false musitians their errors, and the way of attaining the truth . . . . When therefore thou wilt learne a Song, even the deepest, of thy seite

## SOLMIZATION

by the helpe of thy Monochord, set thy Monochord  
before thee on the table, and make in what Key the  
first Note of that Song is, which thou desirest to know  
(Ch. 9, p. 23).

Given that this work was considered worthy of translation and publication at the beginning of the seventeenth century, small wonder that solmization was taught as a shortcut to setting “thy Monochord before thee!”

### INTRODUCTORY LESSONS IN SOLMIZATION

The twentieth-century development of the felt-tip pen eases the initial study of the hand. Students should be advised to bring a felt-tip of dark color to class on the day this study is initiated. After being given copies of Figure 1, they need to label their left hand with pitches only, starting from low G on the tip of the thumb. If pitches are labelled a few at a time in ascending order, the counter-clockwise spiral of the pitches unrolls itself.

Next, students need to review pitches in ascending sequence, finding all Gs, As, etc., on the hand. The fact that all Ds reside on the middle finger should be stressed, although students will probably discover this for themselves with considerable joy.

The next classwork should be on hexachords. The interval patterns of hexachords on F, C, and G should be established. Then, all possible hexachords built on these three notes should be illustrated on the blackboard, building up from Gamma Ut. A handout of these (such as Figure 2) might be helpful, but students may achieve a better understanding of hexachords by copying them in class. Once students have covered the hexachord system in pitch names, they need to sing them using syllables “ut-la.” The first singing is most easily done from the board; the next step is to sing the hexachords, pointing to the hand. Herein lies some of the advantage of felt-tip pens; only the most diligently clean of undergraduates will have removed all traces of the indelible felt-tip from their palms in the space of one class to the next, even if they have forgotten to study and renew it. The varying and multiple syllable names for each pitch should be explained in detail, with reference to the written hexachords.

At this point, the hymn, “Ut queant laxis,” (found in Appendix A) can be solmized. Students thus learn the music through which Guido derived the solmization syllables. Also, this is an easy chant with which to begin solmization, since it stays within one hexachord. If students have some



## JOURNAL OF MUSIC THEORY PEDAGOGY

familiarity with the Latin words, they have the possibility of relocating themselves at the beginning of each phrase of text, should they have become lost in the solmization syllables.

The importance of "mi-fa" as the location of the half step in the hexachord should be re-emphasized at this point, since it will become critical in solmizing mutations and ficta. When one note only above the hexachord is sung and the hexachord is returned to immediately, that note is solmized as "fa," and sung a half step above "la." "Fa" is used to indicate the location of a note with a half step below it, and "mi" is used to indicate a note with a half step above it.

Additional solmization of literature will require the principles listed above, as well as use of musica ficta for cadences and mutation, so these items need to be considered before more singing is done.

The use of musica ficta is still a controversial topic. Allaire has made a case for musica ficta being used primarily to indicate "fictitious" hexachords. Certainly, the practice of singing one note above "la" as "fa" and making it a half step higher introduces E-flat at the top of the soft hexachord built on F. Musica ficta can be justified to avoid tritones, although Tinctoris allowed the tritone in a horizontal line, if necessary, to avoid the vertical tritone.

Cadential ficta, as in the Burgundian cadence, are solmized by the rule that "mi-fa" names the half step. Thus, a ficta that creates a half step below a note in one of the hexachords is solmized as "mi" and that which creates a half step above a hexachord note is solmized as "fa." The hexachord is returned to immediately following the ficta.

### PRINCIPLES FOR MUTATION

Since most melodies have a wider ambitus than that of one hexachord only, some method must be used to transfer from one hexachord to another while solmizing. This is a point of variance in treatises of the time. However, Gaffurius, Tinctoris, and Ornithoparchus were in considerable agreement, as the following excerpts show:

Tinctoris:

... mutations have been invented to change one propriety into another. Hence, after we have entered into any propriety, we ought never to mutate before the final syllable (of that propriety); and thus, it is understood that mutations must take place as rarely and as tardily as possible (p. 223).

## SOLMIZATION

Gaffurius:

Furthermore, churchmen acknowledge many kinds of pitch mutations. According to Bacchius, mutation is the exchange of substitutes, or the transposition of something similar into a dissimilar place. Hence in his *MORALS* Gregory says that to change is to go from one thing into another and not to be stable in respect to one's essential self, for each thing tends to move toward another, by as many steps, so to speak, as its distance requires. Martianus calls such mutation transposition, and he explains this as the variation of a pitch into another form of the pitch. Briennius, however, said that mutation was the transference of a substitute system and a vocable.

There is also another aspect of mutation in pitch and sound: for when these vocables are in motion and are only coming into existence, they are believed to be of the genus of successive entities. The Interpreter explained this in the Twenty-seventh Problem. According to him, the generation of pitch and sound itself consists of a certain coming into being and changing. Such a system, according to the writing of Marchettus, results in definite mutation. He says: "Mutation is the change of one vocable into another on the same pitch." For if these syllables which are assigned to sounds and pitches—to their notes, that is—stand on one and the same line or space, they are called equal in quantity but different in quality or propriety.

Hence, when mutation occurs, the quality of one hexachord is transferred into the quality of another hexachord, the quantity of the sound remaining the same, as Anselm testifies in Book III of his *Musica*. Hence, I call mutation the alternative displacement of one vocable into another taken on an identical pitch. I understand sounds to be the syllables of the hexachords. Therefore, no sound is changed into another sound by raising or lowering; rather a syllable is changed into another syllable and a propriety or

## JOURNAL OF MUSIC THEORY PEDAGOGY

quality is changed into another quality. Thus, when in a musical passage, we articulate syllables only, mutation will fit exactly. The alphabetical letters that are used in the system, however, are neither introduced nor changed. Moreover, a syllable which occupies either a line or a space all by itself is not suitable for mutation. Thus on Gut, A re, B mi, and e la mutation never occurs, because if it should happen to come about by necessity, you would repeat the original order of the interlocked hexachords (Young, Ed., p. 28-30).

Gaffurius then illustrates mutations. It should be noted that he allows mutation from soft to hard hexachord and vice versa. Gaffurius interjects the following statement:

Most authorities agree that on b fa and b mi no mutation is possible since the syllables do not both have the same pitch and since they are a major semitone apart from one another. This is because b fa is a minor semitone higher than the mi of a la mi re; and since a whole tone is larger than a minor semitone by a major semitone, it is clear that b mi is higher than b fa by a major semitone. When, therefore, we produce that b fa-b mi mutation out of necessity, a mutation both of quality and of quantity will result. I speak (1) of quality, that is, of the propriety of B-molle into B-durum by changing fa into mi in order to ascend, or conversely, in order to descend, and (2) of quantity, that is, passing from a lower to a higher sound by means of fa into mi at the distance of this apotome, or conversely, mi into fa, descending from a higher to a lower pitch. Since this progression is difficult and highly dissonant, the schools of music have advised that it be avoided with every ingenuity (p. 33)

Gaffurius concludes his discussion of mutation as follows:

## SOLMIZATION

Many mutations can also occur indirectly and irregularly, as everybody can readily figure out by himself. Further, they say that a plurality of mutations is to be avoided when one comes to the conclusion that the melodic progression has been suitably arranged in a single mutation. It is said too that mutation ought to be managed slowly and over as long a time as possible. Occasionally a disjunct passage of mutations occurs in singing when a progression takes place beyond the range of the hexachord, ascending or descending—for example, through seven, eight, or even more pitches. This is more frequently encountered in mensural composition. Many mutations could be executed through conjunctions if the syllables of the hexachords were arranged in whole tone intervals and these whole tones were divided into unequal semitones. But since this coincides very closely with the chromatic or mixed genus, the present discussion, concerned only with the Guidonian diatonic system, rejects it . . . .

Ornithoparchus' detailed rules for solmizing and mutation cannot be understood without a summary of some of his preceding definitions. His definition of voices included the following statements:

Therefore, a musical Voyce, is a certain syllable expressing a tenor of Notes. Now Notes is that by which the highnes, or lownes of a Song is expressed. Therefore of Voyces,

Some are { flat Mols  
Naturals  
natural Sharps } Viz. { Ut Fa  
Re Sol  
Mi La }

because they { Flat  
Meane  
Sharpe } sound  
Make a

Besides of Voyces some be superiours: viz. Fa, Sol, La.  
Others be Inferiors: as Ut, Re, Mi (p. 6).

## JOURNAL OF MUSIC THEORY PEDAGOGY

The meaning of this definition seems to be that "Voyce" is roughly equivalent to a hexachord, as expressed by solmization syllables. His table shown above illustrates that some voices are called flat Mols, which contain the "ut-fa" fourth and make a "Flat sound," that is a lower sound than the others. The term "meane" is used to define a "Natural" voice in that it lies in the middle of "Flat" and "Sharpe" hexachords, not that the sound is unpleasant.

Ornithoparchus' translation used "Keys" as a term roughly equivalent to our meaning of clef combined with a key signature: "Or more formally, a Key is the opening of a Song, because like as a Key opens a dore, so doth it the Song."

His use of "scale" was not so encompassing as our definition:

Therefore, generally a Scale is nothing else, but the knowledge of mi and fa, in flat fa natural mi, and his Eights. The scale natural Durall is a Progression of Musically Voyces, rising from A to natural sharply, that is, by the Voyce mi. But the scale flat Moll is a progression of Musically Voyces, rising from a to b flatly, that is by the Voyce fa (p.14).

With these definitions in mind the rules of Solfaing and Mutations of Ornithoparchus are presented:

### Rules of Solfaing

1. He that will Solfa any Song, must above all things have an eye to the Tone. For the knowledge of the Tone is the invention of the Scale, under which it runnes.
2. All the Tones runne under the Scale of natural Dure, excepting fift and sixt. [Lydian and Hypolydian]
3. To have a Song runne under natural Dure, is notheing else, but to sing Mi in flat fa natural mi, and fa in a flat Scale.
4. When a Song runnes under a Scale natural Dure, the lowermost Notes that kinde are to be sung; but under a Scale of flat Moll, the uppermost Notes.

5. Every Solfaer must needs looke, whether the Song be regular, or no; for the transposition of a Song is oft times an occasion of changing the Scale.

6. Every Song ending in the Finals, is regular, and not transposed, saith Saint Bernard in his Dialogue.

7. Whensoever a Song ascends from D sol re to A la mi re by a fift, mediately, or immediately, and further only to a second, you must sing fa in flat fa natural mi in every Tone, till the song do again touch D sol re, whether it be marked or no. But this Rule falles, when a song doth not straightways fall to F fa ut, as in the Hymne, Ave maris stella, you may see.

8. In flat fa natural mi, and his eights, you may not sing mi for fa nor contrariwise; because, they are discording and repugnant voyces, saith Franchinus lib. 1 pract. cap. 4.

9. Flat in places where he is marked contrary to his nature, doth note Mutation.

10. The Scale being varied, the Mutations are also with it varied, both in the whole and in part. In the whole, as in transposed Songs; in part, as in conjoynd Songs.

11. As often as fa or mi is marked contrary to their nature, the Solfaer must follow the marke so long as it lasts.

12. Seeing there is one and the selvesame judgement of eights, the same solfaing of Voyces must be (p. 15-16).

### Rules for Mutations

1. As often as the Progression of sixe Musicall Voyces wants, there must necessarily be Mutation.

2. No Mutation can be in a Key which hath but one Voyce, because there one Voyce is not changed into it selfe, although it may well be repeated.

## JOURNAL OF MUSIC THEORY PEDAGOGY

3. In Keyes which have two Voyces, there be two Mutations, the first is from the lower to the upper; the second contrarily. From this Rule are excepted Keyes which have Voyces of one kinde, as cc sol fa and dd la sol.
4. A Key having three Voyces, admitteth sixe Mutations, although therein you must needs varie the Scale.
5. Let there be no Mutation, unlesse necessitie force you to it.
6. The flat m 11 Voyces cannot be changed into natural square, no contrarily; because they are discords.
7. Naturall Voyces are changed both into natural Dures, and into flat mols, because they are doubtfull: excepting mi and sol, re and fa, which are not changed one into another; because they are never found dwelling in one Key.
8. In the falling of a Song, let the lower be changed into the higher, in the rising contrarily.
9. In a Key which hath one Voyce, there may be so many Mutations, as there may be in his eight, because of them there is the same judgement.
10. You must make a mentall, not a vocall Mutation, unless two of three Notes be put in the same place that receives Mutation (p. 17).

### SUMMARY OF SOLMIZATION AND MUTATION PRACTICES

The quotations of the previous pages show that, at the time they were written, solmization was a living practice. The writers grappled with the application of rules to a diverse body of musical literature, giving exceptions for differing forms of compositions. Also, they showed that solmization and mutation were not mechanical processes, but involved application of analytic skills and knowledge. The hexachords implied a musical identity relative to each other, and were in some instances related to certain modes. The rules can be summarized as follows:

1. The hexachord in which one begins a piece should be chosen in relation to the mode of a piece, for the mode will give some general indication of its ambitus.

## SOLMIZATION

2. Any passage involving essential use of B-flat, not just its use at the top of the natural hexachord, should be solmized in the soft hexachord. Since the concept of a note a step or a half-step below the hexachord was not used by the writers quoted, any b-flat will require the use of the hard hexachord. The passage "F-E-F" will require the natural hexachord. However, "G-F-G" can be solmized in either the natural or soft hexachord, depending on its context. Compositions need not necessarily begin and end in the same hexachord. A one-note extension above any hexachord, when the hexachord is returned to immediately, is solmized "fa" and sung a half-step above "la."

3. Mutation from one hexachord to another should take place only when actually necessary, as opposed to whenever possible. Good examples of this will be found when the melodic line of a composition in the hard hexachord contains a passage C-E, which can be solmized in the natural hexachord, but is not required. Where a passage can be solmized in different ways, the one requiring the least mutation is preferred.

4. When mutation is necessary, it should take place as late as possible, retaining the old hexachord for as long as possible.

5. Tinctoris did not write of the hard-soft hexachord mutation, Gaffutuis allowed it and gave examples thereof, and Ornithoparchus seemed to have two contradictory rules (Rules 4 and 6). On closer inspection, the contradiction appears to resolve: according to Rule 4, any key having three voices allows six mutations. Inspection of the gamut reveals that any note that is present in three hexachords involves all three differing hexachords, and that to obtain six mutations, hard-soft and vice-versa must be allowed. Rule 6 would seem to apply more to an actual mutation on the note B, which would require its chromatic inflection. Gaffurius treated this in some detail, deeming it possible as a solution to avoid worse problems.

6. None of these writers forbade mutation on "ut," a rule quoted in our own time, and Gaffurius specified it in some of his examples. Considering the detail in which these writers specified mutation, its practice on "ut," particularly when suggested in a descending passage, does not appear to be forbidden.

7. Solmization of ficta is governed by the "mi-fa" identification of the half-step.



## JOURNAL OF MUSIC THEORY PEDAGOGY

### STUDENT PRACTICE OF SOLMIZATION WITH THE HAND

With these basic principles in mind, students should proceed to the collection of melodies presented in Appendix A. As in modulation in tonal music, the exact point of mutation in some passages will admit of several differing analyses. Fluent solmization requires that the singer read ahead and perform analysis both as to mode and hexachord. Use of the hand can be gradually discontinued as singers acquire a firmer sense of hexachordal relationships. I suggest that students be allowed to use the hand as long as they wish. Some students will find the added "sense modality" of touch as they point to the appropriate spot on their left hand with their right, to be a mnemonic aid in compositions that must be learned thoroughly, as for performance.

I have found that modal chorale melodies are a good first assignment, since they do not present new problems in both pitch and rhythmic organization. The first four melodies of Appendix A contain a representative selection of modal chorale melodies that were harmonized by J. S. Bach. The subsequent examples of Appendix A present representative melodies chosen with respect to their importance in history and literature. The stemless style of transcription is the preference of colleagues; all melodies are transcribed from the 1947 edition of the *Liber Usualis*. Following these preliminary assignments, any sixteenth-century contrapuntal literature to be studied in class is first assigned for solmization and class performance.

After a few weeks of solmization and use of the hand, students can hear and sense the organization imposed on Gregorian chant by the two factors. Students then have a framework on which to place their new learnings in modal counterpoint. Moreover, they have a historically appropriate methodology for approaching modal counterpoint through its melodic lines.

### SUMMARY AND CONCLUSIONS

Solmization offers a historically appropriate approach to the sixteenth-century sacred music on which most undergraduate study of modal counterpoint is based. Solmization gives students assistance in the performance practice of the music and insight into the solution of some of the problems of *ficta*. I combine this approach with reading in the twentieth-century modal counterpoint texts, student group reports on representative music literature, and student writing in the style. All of this activity fills a three-hour one-semester course, the final exam of which is student performance of their final writing projects, which are four-voice imitative works.

## SOLMIZATION

In "An Approach to the Analysis of Renaissance Music," Aldrich wrote,

In learning new compositions all performers—instrumentalists as well as singers—solmized their parts . . . .  
Present-day musicians would be well advised to follow the precedent of the earlier performers . . . .

Also, Allaire commented, "In short, solmization was to the medieval and renaissance musician what spelling is to a reader."

Solmization provides students with a method to engage in independent study, and integrates them into a tradition that is fast approaching the beginning of its second millennium.

### REFERENCES

Aldrich, Putnam. "An Approach to the Analysis of Renaissance Music." *The Music Review*, XXX/1 (1969): 1-21.

Allaire, Gaston. *The Theory of Hexachords, Solmization and the Modal System: A Practical Application*. American Institute of Musicology, 1972.

Brown, Howard M. *Music in the Renaissance*. Prentice-Hall, 1976.

Dowland, John, translator. *Andreas Ornithoparcus His Micrologus*. Thomas Adams, 1969.

Evans, Paul. *The Early Trope Repertory of St. Martial de Limoges*. Princeton University Press, 1970.

Ferland, Ernest T. "Improvised Vocal Counterpoint in the Late Renaissance and Early Baroque." *Annales Musicologiques*, IV (1956): 9-174.

Gauldin, Robert. *A Practical Approach to Sixteenth Century Counterpoint*. Prentice-Hall, 1986.

Grout, Donald J. and Palisca, Claude V. *A History of Western Music*. 3rd ed. W. W. Norton & Co., 1980.

## JOURNAL OF MUSIC THEORY PEDAGOGY

Haar, James, editor. *Chanson and Madrigal, 1480-1530; Studies in Comparison and Contrast*. Harvard University Press, 1964.

Hoppin, Richard H. *Medieval Music*. W. W. Norton & Co., 1978.

Hughes, Andrew. *Manuscript Accidentals: Ficta in Focus, 1350-1450*. American Institute of Musicology, 1972.

Jeppesen, Knud. *The Style of Palestrina and the Dissonance*. Dover Publications, Inc., 1980.

Kerman, Joseph. *Listen*. Brief Edition. Worth Publishers, Inc., 1987.

Klarmann, Rev. Andrew F. *Gregorian Chant: A Textbook for Seminaries, Novitiates and Secondary Schools*. Gregorian Institute of America, 1945.

LaRue, Jan, editor. *Aspects of Medieval and Renaissance Music: A Birthday Offering to Gustave Reese*. W. W. Norton & Co., 1966.

*Liber Usualis*. Edited by the Benedictines of Solesmes. Belgium: Desclee et Society, 1947.

Mainous, Frank D. and Ottman, Robert W. *The 371 Chorales of Johann Sebastian Bach*. Holt, Rinehart and Winston, Inc., 1966.

Morley, Thomas. *A Plain and Easy Introduction to Practical Music*. London: J. Dent & Sons, Ltd., reprinted 1963.

Poulton, Diana. *John Dowland*, second edition. University of California Press, 1982.

*Processionale Monasticum ad Usus Congregationis Gallicae, Ordinis Sancti Benedicti*. Solesmis: e Typographeo Sancti Petri, 1983.

Reese, Gustave. *Music in the Renaissance*. W. W. Norton & Co., 1954.

Sadie, Stanley, editor. *The New Grove Dictionary of Music and Musicians*. London: Macmillan, Ltd., 1980.

Seay, Albert. "The Expositio manus of Johannes Tinctoris." *Journal of Music Theory*: 194-232.

Strunk, Oliver, editor. *Source Readings in Music History, Antiquity and the Middle Ages*. W. W. Norton & Co., 1956.

Killam: Solmization with Guidonian Hand: A Historical Introduction to Mod  
SOLMIZATION

VanderWerf, Hendrik. *The Chansons of the Troubadours and Trouveres*. Utrecht: Aosthoek, 1972.

Young, Irwin, editor and translator. *The Pracica Musicae of Franchinus Gafurius*. University of Wisconsin Press, 1969.

Zarlino, Gioseffo, translated by Guy A Marco and Claude V. Palisca. *The Art of Counterpoint*. W. W. Norton & Co., 1968.

APPENDIX

Chorale no. 267. Vater unser in Himmelreich.



Chorale no. 10. Aus tiefer Not schrei' ich zu Dir.



## JOURNAL OF MUSIC THEORY PEDAGOGY

### Chorale no. 21. Befiehl Du Deine Wege. (Melody by Hans Leo Hassler)



### Chorale no.160. Gelobet seist Du, Jesu Christ.



### Hymn: Ut queant laxis (Vs. 1). Liber Usualis p. 1384.

Ut que-ant la - xis re - so - na - re fi - bris Mi - ra ges - to - rum

fa - mu - li tu - o - rum, Sol - ve pol - lu - ti la - bi - i

re - a - tum, San - cto Jo - an - nes.

Killam: Solmization with Guidonian Hand: A Historical Introduction to Mod  
SOLMIZATION

Sequence: Dies irae (Vs. 1). L. U. p. 1168.

Di - es i - rae, di - es il - la, Sol - vet see - clum in fa - vil - la:

Ies - te Da - vid cum Si - by1 - la.

Sequence: Veni Sancte Spiritus (Vs. 1). L. U. p. 750.

Ve - ni, Sancte Spi - ri - tus, Et e - mitt - te cœ - li - tus

Lu - cis tu - æ ra - di - um.

Hymn: Ave maris stella (Vs. 1). L. U. p. 1074.

A - ve ma - ris stel - la, De - i Ma - ter al - ma

At - que sem - per Vir - go Fe - lix cœ - li por - ta

Hymn: Pange lingua (Vs. 1). L. U. p. 811

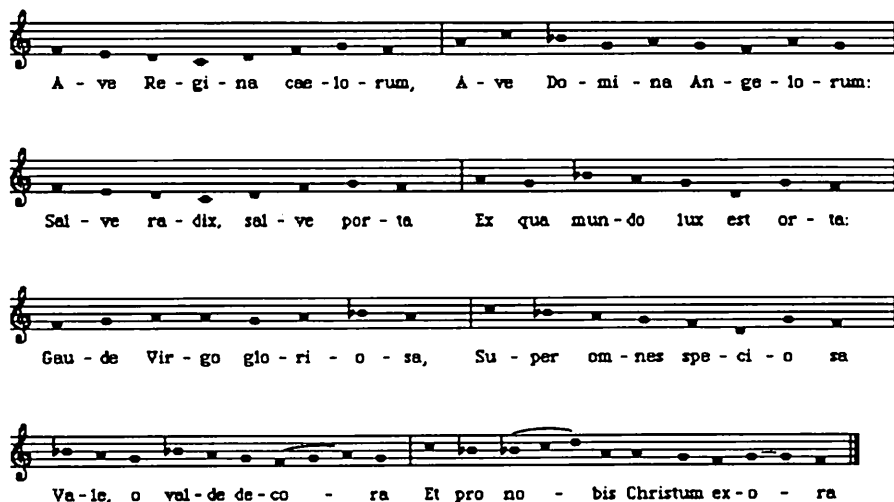
Pan-ge lin-gua glo-ri-o-si cor-po-ris mys-te-ri-um, san-gui-nis-que  
pre-ti-o-si Quem in mun-di pre-ti-um Fruc-tus ven-tris  
ge-ne-ro-si Rex ef-fu-dit gen-ti-um

Sequence: Stabat Mater (Vs. 1). L. U. p. 1644.

Sta-bat Mat-ter do-lo-ro-sa Jux-ta cru-cem la-cri-mo-sa,  
Dum pen-de-bit Fi-li-t

Killam: Solmization with Guidonian Hand: A Historical Introduction to Mod  
SOLMIZATION

Antiphon: Ave Regina caelorum. L. U. p. 244.



A - ve Re - gi - na cae - lo - rum, A - ve Do - mi - na An - ge - lo - rum:  
Sal - ve ra - dix, sal - ve por - ta Ex qua mun - do lux est or - ta:  
Gau - de Vir - go glo - ri - o - sa, Su - per om - nes spe - ci - o - sa  
Va - le, o val - de de - co - ra Et pro no - bis Christum ex - o - ra

Sequence: Lauda Sion (Vs. 1). L. U. p. 793.



Lau - da Si - on Sal - va - to - rem, Lau - da du - cem et pas - to - rem,  
In hym - nis et can - ti - cis



Hymn: Veni Creator spiritus (Vs. 1) L. U. p. 756.

The image shows a musical score for a hymn. It consists of two staves of music, each with a treble clef and a key signature of one sharp (F#). The first staff contains the lyrics: "Ve - ni cre - a - tor Spi - ri - tus, Men tes tu - o - rum vi - si - ta:". The second staff contains the lyrics: "Im - ple su - per - na gra - ti - a Quae tu cre - a - sti pec - to - ra". The music is written in a simple, melodic style with eighth and quarter notes.

Ve - ni cre - a - tor Spi - ri - tus, Men tes tu - o - rum vi - si - ta:

Im - ple su - per - na gra - ti - a Quae tu cre - a - sti pec - to - ra