



Tonal Types and Modal Categories in Renaissance Polyphony

Harold S. Powers

Journal of the American Musicological Society, Vol. 34, No. 3. (Autumn, 1981), pp. 428-470.

Stable URL:

<http://links.jstor.org/sici?sici=0003-0139%28198123%2934%3A3%3C428%3ATTAMCI%3E2.0.CO%3B2-T>

Journal of the American Musicological Society is currently published by University of California Press.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/ucal.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact support@jstor.org.

Tonal Types and Modal Categories in Renaissance Polyphony

By HAROLD S. POWERS

TO UNDERSTAND TONAL RELATIONSHIPS in Renaissance music is to understand the ground from which our own sense of tonal relationships originally sprang. The primary tonal elements of Renaissance music are pitch-classes and triads, to all intents and purposes acoustically the same as those of eighteenth- and nineteenth-century music, and there is much in the detail of tonal relationships in Renaissance polyphony that is comfortably familiar. The sonic surface is sometimes faintly exotic, often charmingly vague and undirected to our ears, but hardly alien.

At the same time, the tonal properties of Renaissance music and Renaissance theorizing about those properties are of interest in their own right, for music was a central ingredient in Renaissance culture. Musicological theory today regards something called "modality" as the Renaissance equivalent of the "tonality" we attribute to Baroque/Classical/Romantic music. That is, just as any music from the "tonal system" period belongs in one or another of the twenty-four tonalities or keys, so also received doctrine has it that formerly there was a "modal system," and that every piece of Renaissance polyphonic music belongs to some mode or other.

The modal system that is supposed to have governed medieval and Renaissance polyphony originated as a doctrine borrowed by eighth- and ninth-century Carolingian monks from medieval Greek Christianity and applied to the classification of single-line melodies used in the Western Catholic liturgy. It was stabilized by the end of the eleventh century, and thereafter the basic structure of the system remained intact for many centuries. Eight modal categories were divided into four classes in each of which the first member (authentic) was in some sense higher in pitch than the second (plagal). The four classes were characterized as pertaining to four diatonic scale degrees labelled *D*, *E*, *F*, and *G*. A chant melody was deemed to belong to one of these pairs of modal classes according to the scale degree with which it ended (*finalis*), and was assigned to the higher-lying (authentic) or lower-lying (plagal) mode of the pair according to whether its course (*cursus*,

processus, ambitus) lay higher or lower with respect to that final degree. The background system (of Hellenistic origin via Boethius) included two varieties of its ninth degree, eventually to be called $b\sharp$ and $b\flat$; $b\sharp$ was regarded as "essential" and $b\flat$ "accidental," except that for melodies ending on F the $b\flat$ was of equal or higher status.

Besides D , E , F , and G , three other degrees— a , $b\sharp$ and c —were accepted as finals "transposed" from D , E , and F , though $b\sharp$ was rarely used as a final. If $b\flat$ replaced $b\sharp$ as an "essential" (as opposed to "accidental") degree in the background system, then G , a , and c would become finals of modes "transformed" from what they would have been had $b\sharp$ not lost its "essential" status to $b\flat$.¹

In due course the theory connected with the tonal structure of single-line melodies in the Latin liturgy was borrowed and adapted for theorizing about the tonal structure of multi-line Renaissance music. But it was a long time coming. Polyphonic theory was for centuries entirely preoccupied with problems of ensemble control, that is, with durational relationships and vertical sonorities in multi-line textures where each line had its own sequencing of pitches-cum-durations. Whatever may be our interest in the theory of large-scale tonal organization in polyphony, there was no such interest on the part of the polyphonic-music culture of late medieval Europe. The only available organized body of theory for large-scale tonal organization was the system of eight church modes, and there is only one dubious

¹ See Harold S. Powers, "Mode," *The New Grove Dictionary* (London, 1980), XII, 384–97, for discussion of the development and structure of medieval modal theory. On $b\flat$ as an essential degree for F-modes, see pp. 380–81. On "transformation" as opposed to "transposition," see p. 392. In medieval theory a G-mode with an essential $b\flat$ was regarded as a "transformation" of a "regular" *tetrardus* mode with its final on G , not as the "transposition" of a *protus* mode by an upward fourth that it came to be considered in the sixteenth century. "Transposition" could only be to a final outside the set of four "regular" finals, D , E , F , and G . For example, "transposed" mode 2 had its final at a ; if an A-mode had $b\flat$ as an "essential" degree, it would be deemed to have been "transformed," from (transposed) *protus* to *deuterus*. "Transformation" was a serious logical problem for medieval modal theory: if the combination of a final and an *ambitus* uniquely defined a mode as one of the only eight possible modes, then two modes with the same final and same *ambitus* that were not related as authentic and plagal—such as authentic "G-Dorian" and authentic "G-Mixolydian"—presented a contradiction in terms. For first signs of uneasiness over "transformation," see Guido's *Micrologus*, Chap. 8 (*Guidonis Aretini Micrologus*, ed. Joseph Smits van Waesberghe, Corpus scriptorum de musica, IV [Rome, 1955], pp. 122–29). The matter of "transposition" and "transformation" is discussed in full in three anonymous 11th-century treatises: the anonymous commentary on the *Micrologus* (ed. Cölestin Vivell [Vienna, 1917], p. 25; ed. Joseph Smits van Waesberghe [Amsterdam, 1957], p. 120); the *Questiones in musica* (ed. Rudolf Steglich [Leipzig, 1911], pp. 50–55); and the *Tractatus anonymous de musica et de transformatione specialiter* (ed. Heinrich Sowa, *Quellen zur Transformation der Antiphonen* [Kassel, 1935], pp. 154–60).

piece of evidence in medieval musico-technical literature that polyphonic music was ever imagined as possibly subject to the church modes, and some good indications to the contrary.² Even after modal theory had been fully accepted as the way to account for tonal relationships in polyphony, its essential separateness continued to be reflected in the design of music-theoretical treatises. The rules for the structure and the succession of simultaneities would be dealt with in a section called "counterpoint" or the like, and the modal system would be described in its own separate section. Zarlino's *Istitutioni harmoniche* is a case in point, and the diversities in his approach to tonal properties between Books III (counterpoint) and IV (the modes) are illustrative.

In any case, the chief stimulus to the introduction of modal theory into the world of polyphonic musical composition in a fully systematic way was not originally a desire for analytic understanding of long-range tonal relations. It was rather more cultural than technical, and had at first to do with the expressive function of music rather more than with its tonal structure.

The Platonic doctrine that ethos and pathos could be affected and effected by the "modes" of music was of course familiar in the Middle Ages: for instance, an ancient story often retold concerned a youth from Taormina who was incited to attempted rape on hearing the Phrygian mode and was calmed when the mode was changed to Hypophrygian. The doctrine of modal ethos, however, was not applied to specific single-line melodies of Catholic liturgical music; I know of only one late attempt, and it clearly illustrates the impossibility of doing so.³ And since counterpoint and modal theory were always treated separately in the treatises, modal ethos naturally does not turn up in medieval discussions of polyphony. With the advent of humanism in the fifteenth century, however, peripheral medieval recollections of the traditional power of music to express affections of the human spirit in specific ways were powerfully reinforced, not only by the renewed interest in the secular human world celebrated in classical texts, but also by the rediscovery of many more instances of

² See Oliver Ellsworth, "The Berkeley Manuscript (*olim* Phillips 4450): A Compendium of Fourteenth-Century Music Theory" (Ph.D. diss., Univ. of California at Berkeley, 1969), I, 16-25, 95-101, and II, 39-61, for a late 14th-century claim that modes might be applicable to polyphony. For both earlier and later opinions to the contrary, see Ernst Rohloff, *Die Quellenhandschriften zum Musiktraktat des Johannes de Grocheo* (Leipzig, 1967), pp. 152-54, and Johannes Legrense, *De ritu canendi*, in Edmond de Coussemaker, ed., *Scriptorum de musica medii aevi nova series* (hereafter *CS*) (Paris, 1864-76), IV, 369-71.

³ See Chap. 8 of the anonymous Carthusian treatise, *De natura et distinctione tonorum*, *CS*, II, 448.

the effects of music in those texts. And the musical modes were said to be able to induce those effects.

For the visual and literary arts the humanists had direct models in the remnants of ancient artifacts and texts. For music they had only names and descriptions. And since music in the ancient world had not been polyphonic, there were not many humanists interested in polyphony in any case; polyphony was part of the Northern Gothic world that most humanists self-consciously rejected.⁴ Before the sixteenth century only a few desired to reconcile the beauties of polyphony as they knew it first hand with the reported effects of ancient music. And however much they might know of the doctrine of ethos and of the names of the modes said to produce the effects, the only actual modes they knew were the church modes. Of course, these church modes did in fact bear a set of Classical names—Dorian, Hypodorian, Phrygian . . . Hypomixolydian—and the humanists interested in polyphony had no way of knowing that these names had been grafted onto a Latinized Byzantine scheme in the ninth century. *Faute de mieux*, they supposed at first that the theoretical-musical entities whose Greek modal names they knew were somehow equivalent to or at least descended from the modes with the same names that they read about in ancient texts.

An early instance of the new feeling may be seen in the fifth chapter “How to compose chansons [*cantilenae*]” of the essentially still medieval counterpoint treatise of Nicola Burzio (1487).⁵ Several prior conditions of general musical experience are given as necessary to a composer of polyphony; the last is a knowledge of the modes. There follows then a list of the eight modes, with a set of affects of medieval origin; then come instructions as to the order in which the voice parts of the chanson should be composed—the highest voice is to be composed first if all the voices are newly composed—and admonitions to take care that the harmonies work properly. The implication is inescapable that the highest voice is a freely invented melody to be composed with not only a modal structure but also a modal affect in mind. Burzio’s triple injunction to the polyphonic composer stipulating a knowledge of the modes, specifying their affects, and saying how the voice parts ought to be arranged, foreshadows a pattern of didactic

⁴ See Nino Pirrotta, “Music and Cultural Tendencies in 15th-Century Italy,” this JOURNAL, XIX (1966), 134–38, and also his “Novelty and Renewal in Italy: 1300–1600,” in *Studien zur Tradition in der Musik: Kurt von Fischer zum 60. Geburtstag*, ed. Hans Heinrich Eggebrecht and Max Lütolf (Munich, 1973), pp. 49–63.

⁵ Nicola Burzio, *Musices opusculum* (Bologna, 1487). This has been reprinted as *Florum libellus*, ed. Giuseppe Massera (Florence, 1975); see pp. 123–25.

thought that came to full fruition only three-quarters of a century later, in treatises by Hermann Finck (1556), Gallus Dressler (1561 and 1563/64), and others.⁶

But modal doctrine and polyphonic theory on the whole continued to be slow in coming together, and most of the junctures that do occur in the technical literature of music before 1525 are more suggestive than systematic.⁷ Tinctoris's famous fifth rule for counterpoint (1477) is characteristic: "A perfect consonance [*perfectio*] should never be put with any note [in the pre-composed part to which the new counterpoint is sung] such that a departure from the mode of the chant [*cantus distonatio*] could ensue."⁸ One observes that it is the mode of the given chant that is in question, not any putative mode for the polyphonic complex; the instruction is to avoid contradicting what is already there. In his treatise on the modes (1476), to be sure, Tinctoris claimed that "we use them not only in Gregorian music, which is simple and unmeasured, but in all other music, polyphonic and mensural."⁹ The treatise itself, however, is simply an elaborate exposition of Marchetto's systematic theory of single-line modality that goes back at least to the beginning of the fourteenth century.¹⁰ The examples Tinctoris actually supplied are single-line phrases constructed to illustrate each of the myriad modal categories and subcategories described. Only once is there a discussion of how mode should be applied to polyphony, in terms of a particular chanson, and the best Tinctoris could do was to assign a mode to each single-line voice-part individually, and say that the mode of the whole would be the mode of the voice-part most important compositionally, which he asserted without further qualification to be the tenor.¹¹ (Note that

⁶ Hermann Finck, *Practica musica* (Wittenberg, 1556), Book IV, "De tonis." Polyphony is discussed from cue Rr^v to the end of Book IV. Gallus Dressler, *Practica modorum* (Jena, 1561), and *Praecepta musicae poeticae* (MS from 1563/64), ed. Bernhard Engelke, *Geschichts-Blätter für Stadt und Land Magdeburg*, XLIX/L (1914/15), 213–50.

⁷ The adoption of modal theory in discussions of polyphonic texture as a way of accounting for tonal consistency is outlined, and the various ways of using it analyzed, in Powers, "Mode," pp. 397–418, esp. pp. 399–406.

⁸ Johannes Tinctoris, *Liber de arte contrapuncti* (MS from 1477), in *Johannes Tinctoris, Opera theoretica*, ed. Albert Seay, 2 vols., *Corpus scriptorum de musica*, XXII (n.p., 1975), II, 150.

⁹ Johannes Tinctoris, *Liber de natura et proprietate tonorum* (MS from 1476), ed. Seay, *Opera theoretica*, I, 70.

¹⁰ See Klaus Wolfgang Niemöller, "Zur Tonus-Lehre der italienischen Musiktheorie des ausgehenden Mittelalters," *Kirchenmusikalisches Jahrbuch*, XL (1956), 23–32, and Ed Peter Bergquist, "The Theoretical Writings of Pietro Aaron" (Ph.D. diss., Columbia Univ., 1964), pp. 226–42.

¹¹ Tinctoris, *Liber de natura et proprietate tonorum*, ed. Seay, *Opera theoretica*, I, 86.

Burzio gave compositional primacy to the tenor only when it was a pre-existing line to which the other voice-parts had to be fitted.)

In the compositional practice of Renaissance polyphony too, any demonstrable linking of then current notions of mode with individual works was at first sporadic rather than systematic, except for the identification of psalm-tones in connection with polyphonic Magnificats, where liturgical usage required strict conformity to the Gregorian formulae; but psalm-tones are not modes in the theoretical sense. Every now and then the names—or rather numbers—of modes turn up in the titles of works that are not Magnificats. When they do, they seem to be calling attention to a special feature of that particular work, not just casually mentioning a technical specification familiarly known to be applicable to all works of the genre or style; they are not comparable to the “F major” of Beethoven’s 6th Symphony or the “D minor” of his 9th.

In short, the question of whether polyphony in the late fifteenth and early sixteenth centuries was or ought to be conceived as regularly being “in” modes of the only modal system then known is moot and complex. What is certain is that by 1525 that question had become vital. In that year, the first work both to claim modality as a universal for polyphony and to exemplify the claim by citing a large number of actual polyphonic pieces appeared: Pietro Aaron’s *Trattato della natura et cognitione di tutti gli tuoni di canto figurato*.¹² This work belongs to the same doctrinal tradition as Tinctoris’s treatise on the modes. Unlike the Tinctoris work, however, Aaron’s work allows itself to be tested: his instances are real pieces, not invented illustrative phrases. Yet a reading of his treatise without presuppositions makes it clear that, like Tinctoris, Aaron was by no means merely reporting how things were generally understood to be, how music was being composed “in” modes. Rather, he was trying to reconcile a given repertory (to be found in prints published by Ottaviano Petrucci and Andrea Antico between 1500 and 1522) with a given system (the eight church modes of Gregorian chant theory). He was not telling his readers that such-and-such a piece had been composed in such-and-such a precompositionally selected mode. Rather, he was telling them that such-and-such a piece should be assigned to—should be classified under—such-and-such a mode, in each case carefully adducing his reasons for the choice of modal category. His claim that modality is a universal

¹² Pietro Aaron, *Trattato della natura et cognitione di tutti gli tuoni di canto figurato*, trans. in part and annotated in Oliver Strunk, ed., *Source Readings in Music History* (New York, 1950), pp. 205–18. See also Bergquist, “The Theoretical Writings,” Chap. 4 (pp. 224–314).

property in polyphony is merely a claim, not a well-known fact, and he knew he had to be able to make and justify a modal assignment for every piece, no matter how far-fetched in some instances, or the whole proposition would fail.

But to show that the eightfold system can be made to constitute a set of categories to one of which any composition can be assigned *a posteriori*, as Aaron most ingeniously did, is by no means to show that a "mode" is an *a priori* pre-compositional property of every piece of Renaissance polyphony, as a "tonality" certainly is a pre-compositional property in every eighteenth-century piece. The distinction is crucial. There are very few eighteenth- and nineteenth-century compositions about whose tonality any question could arise, then or now, while Renaissance musical theory is rife with discussions and controversy about modality. From Mattheson to Schoenberg there is never any question about how many tonalities there are, or what they are, while in the second half of the sixteenth century there were two competing general schools of thought on polyphonic modes, with two or more doctrinal subvarieties in each. Many writers who dealt with polyphonic modality adhered in one way or another to the traditional eight modes of Gregorian chant; others followed the general approach that had originated with the publication of Glarean's *Dodecachordon* in 1547. Glarean developed his new system from a curious mixture of the medieval church modes, Hellenistic musical theory, and passages on music in Classical texts. It comprised twelve modes, the eight of the church with finals on *D*, *E*, *F*, and *G*, plus two more pairs with finals on *a* and *c*, similarly divided into "authentic" and "plagal." The Greek modal names Dorian . . . Hypomixolydian were retained, and for the two new authentic-plagal pairs the new names Aeolian and Iastian (or Ionian) were devised, after ancient textual references.¹³

Such a fluid state of affairs in musical doctrine does not inspire much confidence in the theoretical status of "modality" as a pre-compositional universal for sixteenth-century polyphony. Of course, it might be supposed that the writers were somehow fumbling their way toward a system of modalities that was already inherent in the musical repertory, if not fully and consciously recognized as such. This was Glarean's belief for the twelve modes of his system; eight-mode theorists did not need to be explicit since their fundamental theory was not a new construction. But the development of the polyphonic repertory itself during the course of the sixteenth century does not

¹³ Heinrich Glarean, *Dodecachordon* (Basel, 1547). See the translation by Clement Miller, *Musicological Studies and Documents*, VI (n.p., 1965), pp. 113-17, 125-28.

support this view. To the contrary, it is only during the very period when modal theory was first beginning self-consciously to be assimilated to polyphony—say from Aaron (1525) to Gallus Dressler (1561 and later)—that the repertory itself begins to provide hard evidence of a systematic interest on the part of composers and editors in the question of “modality,” an interest as self-conscious as that of the theorists. And this evidence, too, tends to indicate that “modes” were originally thought of more as *a posteriori* categories for grouping items in a repertory than *a priori* pre-compositional choices or assumptions.

A good place from which to begin the argument is the fact that, in the second half of the century, cyclic sets of works began to appear that explicitly are claimed to have been composed according to modes; in these cases there is no secret about it to be discovered, no subtlety, absolutely no doubt about the pre-compositional intention. Cases in point, one for each basic doctrine, are the *Seven Penitential Psalms plus Laudate Dominum* of Lasso “[8] modis musicis redditi” (see below, Table 3), published in 1584 although first composed over two decades earlier; and the *Seven Penitential Psalms plus Five Prayers from the Prophets* “ad Dodecachordi modos duodecim” of Alexander Utendal, published in 1570.

Sixteenth- and early seventeenth-century anthologies and cycles ordered according to one of the twelve-mode systems generally say so in the title, as in the Utendal Penitential Psalms. Conversely, it is rare for anthologies or cycles ordered according to the traditional eight-mode scheme, such as the Lasso Penitential Psalms, so explicitly to refer to modality. Some do, however, and one of them is of enormous historical and theoretical importance for the question of modal categories, simply because it is explicit, as well as very extensive: the five-voice volumes from the fifteen-volume series of Latin motets entitled *Liber . . . ecclesiasticarum cantionum* that was published from 1553 onward by the Antwerp printer and occasional composer Tylman Susato (see Table 15). Some of the volumes are said to contain pieces (*omnes*) *de uno tono*, “(all) in one mode” (Books VII, VIII, X, XI, XII, XIV); the first two are said to be (*omnes*) *primi toni*, “(all) in mode 1” (Books V and VI); Book IX is said to be (*omnes*) *(quasi) de uno tono*, “(all) (as though) in one mode.” These volumes follow an order that is unmistakably intended to match the sequence of eight modes in the octenary theoretical tradition.

There is a vitally important distinction to be made between Susato’s modally ordered anthology, however, and such a collection as the modally ordered Penitential Psalms of Lasso. The Susato collection illustrates editorial judgments, not compositional inten-

tions. What those intentions may have been, or even whether there were any modal intentions, we assuredly cannot know from the kind of evidence Susato's anthology offers, while we just as assuredly can know that Lasso's intention in the Penitential Psalm settings was precisely to represent, to embody, to illustrate, the traditional eight-mode system. The epistemological status of the Susato anthology, in short, is not that of the Lasso cycle but rather that of the Aaron treatise, except that we are not told Susato's reasons for the assignment of the various pieces to their respective modes.

Other eight-mode collections are known from indirect testimony to have been modally ordered, which is confirmed upon examination of the collections themselves; Lasso's first Munich anthology of motets, published in 1562 (see Table 8-A) is such a collection. In many collections the arrangement of pieces alone reveals them to have been modally ordered, even in the absence of verbal confirmation, from Rore's five-voice madrigals published in 1542 (see Table 1) to Lasso's madrigal cycle, the *Lagrima di San Pietro*, published in 1593 (see Table 4). But most collections, whether by one composer or more than one, were not modally ordered.

The general trend in sixteenth-century printed collections was from less tonal ordering to more, and the organization of both anthologies and cyclic sets according to modal schemes became more common as the century wore on. Collections early in the century, such as Petrucci's printed anthologies of chansons and motets from which Aaron chose most of the examples he cited, have no discernible musical basis for their arrangement. Later in the century printers and editors came more and more to group compositions in collections according to two simple and practical musical criteria: (1) whether the composition was set in the "b-natural system" with no signature (called *cantus durus*) or the "b-flat system" with a b-flat signature (called *cantus mollis*); and (2) whether the voice parts as a group used a relatively higher or lower segment of the whole background gamut, as denoted by the choice of one or the other of two ever more standardized combinations of clefs, the so-called "*chiavette*" and the "standard" clefs. (I shall refer to the *chiavette* as "high clefs" and the standard SATB combination as "low clefs" in order to emphasize the contrast.) The set of three volumes of new Lasso motets published by Berg in Munich in 1582 (see Table 13) is an instance of grouping by these two criteria.

In some collections an additional criterion is used in the grouping, namely, (3), the pitch-class of the lowest note in the last sonority, or in modern terms, the root of the final triad. Those collections in which

the final sonority was also a factor in the ordering almost always fall into an obviously intended eight-mode or twelve-mode pattern, with a clear distinction between authentic and plagal modes. The choice of the high-clef combination as opposed to the low-clef combination, with "system" and "final" held constant, represents in principle the contrasting of authentic to plagal in a given odd-even, authentic-plagal pair of the traditional theoretical system.¹⁴ There were, however, several other ways of making the contrast in modally ordered polyphonic collections; it is the contrast itself that is essential. The contrast between authentic mode 5 (Lydian) and plagal mode 6 (Hypolydian), for example, is normally indicated by the use of high clefs in one group of pieces and low clefs in another, the pieces in both groups otherwise using the b-flat system and concluding with an "F-major triad." The contrast of high versus low clefs represents the authentic versus plagal *ambitus* feature of the traditional modal scheme, while the traditional common final of the pair is represented by the lowest sound, the bass, the "root" of the final chord. But individual modes can be otherwise represented polyphonically also, just as they can in the monophonic Gregorian chant. The traditional eightfold scheme, for instance, allows for a transposition (in the medieval sense) of mode 6 by a fifth upwards, so that the final is on *c'* rather than *f*, with *ambitus* higher to correspond. In polyphonic collections too, mode 6 may occur in a parallel form transposed a fifth higher, so that it is represented in the b-natural rather than the b-flat system, with high clefs denoting its higher *ambitus*, and its final represented in a concluding "C-major triad." If such a transposed plagal is contrasted with normal polyphonic representations of mode 5, as it often is in modally organized polyphonic collections, then the authentic-plagal distinction is no longer a matter of constant final and constant system with contrasting *ambitus*, but rather of constant

¹⁴ The connection of cleffing contrast with authentic-plagal contrast was adumbrated over half a century ago by Richard Ehrmann, "Die Schlüssel-kombinationen im 15. und 16. Jahrhundert," *Denkmäler der Tonkunst in Österreich, Beibefte*, XI (1924), 66–70 (see esp. the table on p. 69). Ehrmann did not pursue the modal question, however. Not only was he apparently content with the simplistic dodecachordal construct, with its six hexachordal finals and their transposition upward by a fourth, but also he was trying to cope with the chimera of cleffing as a transposition device (it is simpler to regard the whole Guidonian diatonic, with its subsystems and segments, as itself a "transposing instrument"). A link between cleffing and modes was documented by Bernhard Meier in his "Bemerkungen zu Lechners 'Motectae sacrae' von 1575," *Archiv für Musikwissenschaft*, XIV (1957), 85. Caroline Brown Miller has provided a very useful independent discussion of cleffing and modes in "Chiavette: A New Approach" (M.A. thesis, Univ. of California at Berkeley, 1960), pp. 94–122.

ambitus—represented by high clefs in both cases—with contrast embodied rather in the systems and finals, as below:

	mode 5 authentic Lydian	mode 6 plagal Hypolydian
system:	b-flat	= b-flat
<i>ambitus</i> :	high clefs	vs. low clefs
final:	F triad	= F triad
system:	b-flat	vs. b-natural
<i>ambitus</i> :	high clefs	= high clefs
final:	F triad	vs. C triad

In order to diagram these relationships more concisely we can use ♯ and ♭ as shorthand symbols for the contrasted *cantus durus* and *cantus mollis* systems, with “b-natural” (no signature) and “b-flat” (b-flat signature) respectively. We can abbreviate the two basic clef combinations and their variants by citing just the clefs for the soprano parts, which are the most consistent in their cleffing: the high clefs, the so-called “*chiavette*,” use the g-clef on the second line for the soprano part, written “g₂”; the soprano part in the low clefs, the so-called “normal” clefs, uses the c-clef on the first line, written “c₁”. The root of the final triad can be written with the capital form of its letter-name. Final triads on C, D, F, G, or A can occur in both systems; a final B[♭] triad can occur in the system with b-flat, but it is rare; a final E triad can occur only in the system with b-natural. The contrasted polyphonic representations of modes 5 and 6 described above may thus be symbolized as follows:

mode 5 authentic Lydian				mode 6 plagal Hypolydian		
system	<i>ambitus</i>	final		system	<i>ambitus</i>	final
♭	g ₂	F	versus	♭	c ₁	F
♭	g ₂	F	versus	♯	g ₂	C

If one considers all the possible combinations of even the three objective markers—minimally, two “transposition” systems, two standard cleffings, with six finals in each system—there are not eight polyphonic “modes” but rather twenty-four potential “tonal types,” minimally distinguished from one another by collection of pitch-classes, general compass, and final sonority. No major composer with

a substantial corpus of repertory is represented by even as few as twelve of these, let alone eight.

That which all members of a class of polyphonic pieces minimally characterized by some particular combination of system, cleffing, and final sonority have in common should be terminologically distinguished. It should be distinguished from "tonality," which might be mistaken as the equivalent of "key" in music of the "tonal period" of the eighteenth and nineteenth centuries; and it should be distinguished from "mode," since a "mode" is a music-theoretical construct, an inherited category in a fixed set of categories. I shall designate any class of polyphonic compositions minimally characterized by a particular combination of system signature, cleffing, and final sonority with the aforementioned term "tonal type." I shall argue that in given instances a tonal type may be intended to *represent* a mode in a categorical scheme; that is not to say, though, that the tonal type in question *is* that mode. The distinction is what an anthropologist of music might call a distinction between "etic" and "emic." A tonal type is minimally identifiable by its three markers and thus objectively observable completely apart from its musical or cultural context; it is "scientific," it is "etic." "Mode" conversely is all bound up in sixteenth-century musical culture, not only as a living doctrine of the music of the church and a heritage from the Middle Ages but also as a musical construct being experimented with by members of the culture, from both humanistic and traditional points of view; it is thoroughly "emic" and requires study on its own terms, as well as in relation to any music with which it may be connected. The task of the music historian is to sort out the ways in which the many tonal types objectively found in Renaissance polyphonic compositions were correlated with modal categories in the traditional schemes, above all with the traditional eightfold structure, because that is the structure reflected in all the modally ordered collections of the major sixteenth-century composers.

Both my term "tonal type" and the concept it represents are taken from the seminal etic study of sixteenth-century tonalities, Siegfried Hermelink's *Dispositiones modorum*. Hermelink classified Palestrina's compositions objectively according to their various combinations of system, cleffing, and final, and only then did he subjectively analyze and illustrate each type with respect to its musical properties.

From intensive and continued association with the masterpieces of the epoch there appears impressively and clearly a quite stable number of highly differentiated, precisely defined tonal types [*Tonartentypen*] with

unmistakable characters, which in their totality form a complete and independent system that emerges from the compositional particularities of the music, and in spite of an ultimate grounding in a traditional complex of notions—ambitus, modal scale structure, and so on—is determined by the simultaneous sounding of the several parts. In our investigation these are to be set against the traditional tonal doctrine.¹⁵

The systemic result of Hermelink's "intensive and continued association" with the works of Palestrina (and Lasso as well) was a set of twenty tonal types. His rejection of traditional modal doctrine was based on the discrepancy between the multiplicity of objectively discernible tonal types and the paucity of traditional categories.

Pieces with the following notational patterns are designated as Hypodorian:

Signature	Cleffing	finals
\natural	$g_2 c_2 c_3 F_3$	dd d d D
\flat	$c_1 c_3 c_4 F_4$	g G G GG

But what is the aim of this twofold possibility for notating? What use is it, if not to notate different kinds of pieces? The traditional theory gives no answer.¹⁶

I would argue of course that Hermelink was quite right, that two pieces set in these two tonal types will indeed have two quite different characters. And in that case, if each is supposed to "be" Hypodorian, and "Hypodorian" in turn is supposed to be a single real entity with a particular character of its own, then Hermelink's rejection of traditional modal theory as an explanatory theory of musical properties is fully justified. If one accepts the notion that a tonal type need not "be" a mode, but should rather be thought of as having been chosen to "represent" a mode, to stand as the embodiment of a traditional category, then there is no difficulty in accepting the fact that traditional modal theory was able to assign these two very different tonal types both to the same "Hypodorian" mode 2. The first one (\natural/g_2 . . . /dd . . .) was regarded as an upward transposition by an octave, while the second (\flat/c_1 . . . /g . . .) was an upward transposition by a fourth.¹⁷

¹⁵ Siegfried Hermelink, *Dispositiones modorum* (Tutzing, 1960), pp. 13–14. The tonal types are summarized on pp. 100–102 and 142 and described individually in Chap. 5 (pp. 100–43).

¹⁶ *Ibid.*, p. 12.

¹⁷ See Harold S. Powers, "The Modality of 'Vestiva i colli,'" *Studies in Renaissance and Baroque Music in Honor of Arthur Mendel*, ed. Robert L. Marshall (Kassel/

Bernhard Meier, in *Die Tonarten der klassischen Vokalpolyphonie*, also distinguished between these two "Hypodorian" types, citing numerous theorists and compositions. As he put it,

mode 2 transposed to *d'* [tenor] and *d''* [cantus] comes forth as a tonality that shows certain special properties, as compared with the usual form in which mode 2 appears (final *g-re*); nonetheless it keeps the character of the plagal mode through its melodic line, to be discussed later [pp. 210–11], and through the lower fourth relationship of its secondary cadence [A] to its primary cadence [D].¹⁸

If Hermelink's fundamental methodology is etic, Bernhard Meier more than any other modern scholar has shown the way to a deep and genuinely emic understanding of sixteenth-century attitudes toward and treatments of modality, both theoretical and compositional. His *Die Tonarten der klassischen Vokalpolyphonie* was the summary and culmination of a quarter-century of fundamental research into the theory and practice of sixteenth-century modality, and his labors show no signs of abatement.¹⁹ The crucial point in Meier's work is his incontrovertible demonstration (accumulated over many years) that one is obliged to "distinguish the authentic from the plagal modes; and

Hackensack, 1974), pp. 34–36 for references to Zacconi and Banchieri on mode 2 transposed up an octave; note that Banchieri regarded the high register of the transposition as effecting a change from plagal to authentic.

¹⁸ Bernhard Meier, *Die Tonarten der klassischen Vokalpolyphonie* (Utrecht, 1974), p. 138. See also pp. 123–25, 132–34, and 200–209.

¹⁹ The paradigmatic and most revealing study in Meier's *oeuvre* is his "Bemerkungen zu Lechners 'Motectae sacrae' von 1575." Meier's assumptions and approaches are conveniently set forth in English in the prefaces to the various volumes in his edition of Cipriano de Rore, *Opera omnia*, Corpus mensurabilis musicae, XIV, (n.p., 1959–77). Carl Dahlhaus's review of and response to Meier's *Die Tonarten* that appeared in *Die Musikforschung*, XXIX (1976), 300–303 and 354–56, continue an exchange between himself and Meier begun in his own *Untersuchungen über die Entstehung der harmonischen Tonalität* (Kassel, 1968), Part III, "Modus und System" (pp. 141–222). Among Meier's important modal studies since 1974 are "Die Modi der Toccata Claudio Merulos (Rom 1598 und 1600)," *Archiv für Musikwissenschaft*, XXXIV (1977), 180–98; "Zur Modalität der 'ad aequales' disponierten Werke klassischer Vokalpolyphonie," *Festschrift Georg von Dadelson* (Neuhausen/Stuttgart, 1978), pp. 230–39; "Tonartige Ordnungen der sogenannten klassischen Vokalpolyphonie," to appear in the *Congress Report of the International Musicological Society, Berkeley, 1977*, in 1981. An important study based on Meier's principles is Ellen Beebe, "Mode, Structure, and Text Expression in the Motets of Jacobus Clemens non Papa: A Study of Style in Sacred Music" (Ph.D. diss., Yale Univ., 1976). My first acquaintance with and continuing interest in Tylman Susato's modally organized series of motet publications from 1553 (see Table 15) come directly out of Meier's paper on "Tonartige Ordnungen," which he prepared for the panel I chaired at the Berkeley IMS Congress.

this distinction, supported not only by countless theoretical treatises, but also by the cyclical plan discernible in many compositions, remains valid at least until 1600, or thereabouts." Meier's criteria for making the distinction, however, have been internal and in part subjective: "Distinctive features of the imitative fragments, together with characteristic cadential progressions, determine the 'tonality' of each work."²⁰ Even though it was he who called attention to Valerio Bona's explicit description in 1595 of the connection between cleffing and modal ordering,²¹ Meier has preferred not to rely on the extraordinary consistency with which the patterns of cleffing objectively mark the "cyclical plan discernible in many compositions," though they demonstrate over and over again his claim for the universality of the authentic-plagal distinction in sixteenth-century conceptions of modality. He has preferred instead to try to substantiate his claim emically, by appeals to the old theoretical doctrine of the compositional primacy of the tenor voice, as well as to newer, mid sixteenth-century doctrines regarding important cadential degrees. But these criteria in themselves are not consistent enough in the music to support the hypothesis, as Carl Dahlhaus has rightly shown.²² Dahlhaus on the other hand, has refused to accept any part of Meier's authentic-plagal distinction merely on the grounds that Meier's own range-countings and the like do not really prove the case. That does not invalidate the distinction, however, but only Meier's preferred way of justifying it.

If there is a logical difficulty with Meier's approach, it is rather that he regards the church modes in polyphony not only as emic tonal categories for the culture, where he is certainly absolutely right, but also as pre-compositional entities to be composed out, where he may be only sometimes right. Meier has not distinguished between mode as musical property and mode as category, with the result that "modality" becomes a sort of universal. That is, if in a particular genre a given tonal type can be shown in any instance to be correlated with a given modal category, then all instances of that tonal type in that genre are said to be instances of the mode in question. One consequence of this kind of reasoning is that while Meier has found the "cyclical plan discernible in many compositions" and collections he has missed or mistaken some others. At the same time, like Aaron he often has to argue for a modal attribution where there is no evidence

²⁰ Cipriano de Rore, *Opera omnia*, II, iii.

²¹ Meier, "Bemerkungen," p. 85.

²² Carl Dahlhaus, review and response to *Die Tonarten*, *Die Musikforschung*, XXIX (1976), 300-302, 354-55.

that any should be inferred even *a posteriori*, let alone that there was any pre-compositional *a priori* modal intent.

But for dozens of modal collections and hundreds of compositions Meier's pioneering researches and analyses have made it possible to study the correlation of tonal types in Renaissance polyphonic compositions with modal categories in the traditional schemes. One modally ordered collection with which Meier worked, and the earliest unmistakably intended as modal that I know, is Cipriano de Rore's first book of five-voice madrigals of 1542.²³ Table 1 shows the tonal plan of the collection in outline form, according to the distribution of tonal types as they are contrasted by the markers. The odd-even authentic-plagal pieces are throughout contrasted by *ambitus*, with finals and system remaining constant. Modes 1 and 2 are "transposed," and the last three madrigals stand outside the cyclical plan. The modal assignments suggested in the last column of the table are identical with Meier's, though taken solely from the patterning of system, cleffing, and final. The only implicit internal requirement is that the assignment of a piece to a mode should not be blatantly incompatible with theoretical descriptions of the mode. That is, one could not suppose that the tonal type b_2-G could ever represent mode 6, or that tonal type b_1-c_1-G could ever represent mode 5, and so on.

Table 2 shows the tonal plan of the anthology of two- and three-voice chansons published by the Antwerp printer-composer Tylman Susato in 1544.²⁴ The tonal question here is much more complex. These pieces are essentially for only two voices, the bass part being entirely optional; but more than that, as Lawrence Bernstein has shown, they are all reductions of chansons by various composers, all originally for more voices.²⁵ Susato's grouping by tonal type, then, is *a posteriori* at double remove. Ute Meissner had divided the collection into four groups, using Glarean's terms Dorian (Nos. 1-9), Aeolian (Nos. 10-20), Ionian (Nos. 21-28), and Mixolydian (Nos. 30-31).²⁶ Her terms are of course anachronistic, since Glarean's names Aeolian and Ionian were not yet publicly known in 1544, and Meissner was obviously using them descriptively, that is, etically. The consistent

²³ Cipriano de Rore, *Opera omnia*, II, 1-103.

²⁴ Tylman Susato, *Le Premier livre des chansons à deux au trois parties* (Antwerp, 1544), ed. Aimé Agnel (Paris, 1970-71).

²⁵ Lawrence F. Bernstein, "The Cantus-Firmus Chansons of Tylman Susato," this JOURNAL, XXII (1969), 201-207.

²⁶ Ute Meissner, *Der antwerpener Notendrucker Tylman Susato* (Berlin, 1967), pp. 127-28, 134-35.

TABLE I

Tonal plan of Rore's first book of five-voice madrigals (Venice, 1542)

madrigal no.	system ¹	ambitus ²	final(s) ³	mode
1	b	g ₂	G	1
2	b	g ₂	D, G	
3	b	g ₂	D, G	
4	b	c ₁	A, G	2
5	b	c ₁	D, G	
6	♭	c ₁	E	3
7	♭	c ₁	G, E	
8	♭	c ₁	A, E	
9	♭	c ₂	A, E	4
10	b	g ₂	C, F	5
11	b	g ₂	C, F	
12	b	c ₁	C, F	6
13	b	c ₁	F, F	
14	♭	g ₂	D, G	7
15	♭	g ₂	G, G	
16	♭	c ₁	G, G	8
17	♭	c ₁	D, G	
18	b	g ₂	D	(1)
19	b	c ₁	A, G	(2)
20	♭	c ₁	E	(3)

¹ b = *cantus mollis* (signature b-flat); ♭ = *cantus durus* (no signature).

² The *ambitus* in polyphonic terms is represented by the overall compass and the compass of each individual voice, as both controlled and symbolized by the contrasted cleffing patterns; the higher in each pair represents the authentic mode, the lower represents its plagal. Only the clef for the highest voice is shown; the others are as follows:

g₂ = g₂ c₂ c₃ F₃; c₁ = c₁ c₃ c₄ F₄; c₂ = c₂ c₄ c₄ F₃ F₅

³ Capital letters = degree in the bass ("root") in the final triad; where there are two, they denote the finals of a madrigal with two *partes*.

distribution of cleffing or of system-final contrasts, however, seems quite clearly to indicate that there are more than four categories involved, and that in fact Meier's emic authentic-plagal distinction was intended here too. There are only two anomalies: (1) two pieces of the tonal type ♭-g₂-D are inserted, one after the "mode 3" group, the other between the "mode 6" and "mode 8" groups; (2) "mode 7" is not otherwise represented. These anomalies, however, are no more egregious than some of those in Susato's five-voice motet series from 1553—*Ecclesiasticarum cantionum* Books V–XIV (see Table 15)—which are unmistakably meant to match an eight-mode structure as best they

TABLE 2

Tonal plan of the *Premier livre des chansons à 3 parties*
published by Tylman Susato (Antwerp, 1544)

chanson no.	system ¹	ambitus	final ²	mode
1	\natural	$c_2 c_4 F_4$	d DD	1
2	\natural	$c_1 c_4 F_4$	d DD	
3	\natural	$c_1 c_4 F_4$	d DD	
4	\natural	$c_1 c_4 F_4$	d DD	
5	b	$g_2 c_2 F_4$	g GG	
6	b	$g_2 c_2 F_3$	g GG	
7	\natural	$c_2 c_4 F_4$	d DD	
8	$b/b/b$	$c_1 c_3 F_3$	g GG	2
9	$b/b/bb$	$c_1 c_3 F_3$	g GG	
10	\natural	$g_2 c_3 F_3$	aa a A	3
11	\natural	$g_2 c_2 F_3$	aa a A	
12	\natural	$g_2 c_2 c_4$	aa a A	
13	\natural	$g_2 c_2 c_4$	dd d D	?
14	\natural	$c_1 c_3 F_3$	aa a A	4
15	\natural	$c_1 c_3 F_3$	aa a A	
16	\natural	$c_1 c_3 F_3$	a a A	
17	\natural	$c_2 c_3 F_3$	a a A	
18	\natural	$c_1 c_2 c_4$	$c^\# e A$	
19	\natural	$c_1 c_2 c_4$	e e A	
20	\natural	$c_1 c_2 c_4$	e e A	
21	b	$c_1 c_3 F_3$	f F F	5
22	b	$c_1 c_3 F_3$	f F F	
23	b	$c_1 c_3 F_3$	f F F	
24	b	$c_1 c_3 F_3$	f F F	
25	b	$c_1 c_3 F_3$	f F F	
26	\natural	$c_1 c_3 c_4$	cc c C	6
27	\natural	$c_1 c_3 c_4$	cc c C	
28	\natural	$c_1 c_3 F_3$	cc c C	
29	\natural	$g_2 c_2 c_4$	dd d D	?
30	\natural	$c_1 c_3 F_3$	g GG	8
31	\natural	$c_1 c_3 F_3$	g G Γ	

¹ Signatures are the same for all three voice-parts except in Nos. 8 and 9.

² Clefs and final pitches for all three parts.

can. It would seem that Susato did the best he could in this chanson collection, too. He had nothing suitable for mode 7, and he did not quite know what to do with \natural - g_2 -D (nor did he in the five-voice motet series, where he eventually gave it a separate volume of its own, XIV, following the lost volume [XIII] of mode-8 pieces).

That these two early modally ordered collections should comprise madrigals and chansons, that is, secular works rather than church music, is a nice (if probably fortuitous) reflection of the original Renaissance impetus toward self-conscious modalism. There are early modal collections of motets, too (Rore's first book, of 1545, for instance), but as with Aaron's classification attempts in the 1520s, so also in the collections of the 1540s the church modes seem to be receiving attention not because they are "church" but because they are "modes." This is of course partly on purely technical grounds: for dealing with tonal categories in the large, the traditional modal theory was the only theory available. But the desire to consider the tonal properties of polyphonic pieces systematically in terms of modes may also reflect the humanist's interest in the pathic and ethic effects of music, which in original classical sources and their medieval echoes alike were attributed to the musical modes.

Later in the sixteenth century the church modes sometimes came to be used in another way, with the emphasis perhaps now more on "church." Certain modally ordered works of Lasso and Palestrina seem clearly to reflect the lay piety that came to be encouraged in Counter-Reformation practice. Lasso's settings of the seven Penitential Psalms plus Psalm 148 (composed *ca.* 1560, published 1584), his *Lagrima di San Pietro* cycle (1595), Palestrina's setting of eight of Petrarch's *Vergine* madrigals (1581), the first thirty-two compositions of his Offertory cycle (1593), and his other set of spiritual madrigals (1594) are all ordered according to the church modes. One cannot help but wonder if to order the musical setting of a cycle of pious texts according to the prescribed musical system of the church was not an affirmation of faith every bit as compelling as the choice of a pious cycle of texts to set in the first place.

Table 3 shows the tonal plan of Lasso's settings of the Seven Penitential Psalms. Both the psalms and the modes succeed one another with each set in its own traditional numerical order—to provide a text for the eighth mode Lasso added Psalm 148, *Laudate dominum*—so it is obvious that at least for the first seven pieces no expression of the texts through modal affect could possibly have been intended. The modal message is rather in the orderly structure itself; it is not unlike some of the rhymed offices composed for saints in the late Middle Ages where the setting of the Responsories of Matins are also in modal order.

One sees in the Penitential Psalms that the finals for modes 3 through 8 are the "regular" finals *E*, *F*, and *G*, and that the authentic-plagal *ambitus* contrast in the last two pairs is represented by the

TABLE 3

Tonal plan of Lasso's cycle of Penitential Psalm settings

system	ambitus	final	Psalm
1. \natural	$c_1 c_3 c_4 c_4 F_4$	D	6: Domine ne in furore . . . miserere
2. \flat	$c_1 c_3 c_4 c_4 F_4$	G	31: Beati quorum remissae sunt
3. \natural	$c_1 c_3 c_4 c_4 F_4$	E	37: Domine ne in furore . . . quoniam
4. \natural	$c_2 c_3 c_4 F_3 F_5$	E	50: Miserere mei Deus
5. \flat	$g_2 c_2 c_3 c_3 F_3$	F	101: Domine exaudi . . . et clamor
6. \flat	$c_1 c_3 c_4 c_4 F_4$	F	129: De profundis clamavi
7. \natural	$g_2 c_2 c_3 c_3 F_3$	G	142: Domine exaudi . . . auribus
8. \natural	$c_1 c_3 c_4 c_4 F_4$	G	148: Laudate Dominum de coelis

opposition of standard high cleffing (*chiavette*) to standard low cleffing ("normal" clefs). For modes 3 and 4, slightly lower-pitched in the conceptual background system, the "normal" clefs are used for the authentic mode 3, while still lower clefs are used for three outer voices in the setting representing plagal mode 4. This contrasted pair of cleffings is the same as that found in the representations of modes 3 and 4 in Rore's madrigals of 1542 (see Table 1). The first and lowest authentic-plagal pair, however, is differently represented in the two collections. In the Penitential Psalms mode 1 is represented by the tonal type \natural - c_1 -D, which most nearly corresponds with church mode 1 since it is in the "natural" system and has the "regular" final D. But to place the plagal mode 2 with its final at D would have pushed the bass part of the polyphonic complex effectively off the bottom of the conceptual scale and in general would require very low clefs all around, which were customarily symbolically reserved for pieces of especial gloom or profundity. Hence, mode 2 is rarely represented "untransposed." In both the Lasso Penitential Psalms and the Rore madrigals of 1542 mode 2 is represented as though transposed up a fourth, that is, in the b-flat system, with its final on G rather than D, in short, by the tonal type \flat - c_1 -G. In the Rore madrigal collection transposed mode 2 is contrasted with transposed mode 1, so that system and final are constant while the *ambitus* are in contrast: tonal types \flat - g_2 -G versus \flat - c_1 -G. But in the Lasso Penitential Psalms the opposition of regular mode 1 to transposed mode 2 causes the authentic-plagal contrast to show up, as it were, in reverse. The *ambitus*, as represented by the cleffing, is held constant and it is

system and final that are in contrast: tonal types \flat -c₁-D for mode 1 versus \flat -c₁-G for mode 2.

Lasso's last modal collection, his settings of Luigi Tansillo's spiritual madrigal cycle *Lagrimae di San Pietro* plus a Latin *envoi*, expresses the contrast of mode 1 and mode 2 in the same way (see Table 4). The first four madrigals form a closed subgroup set in the tonal type \flat -c₁-D representing mode 1, while the next four are similarly in \flat -c₁-G representing mode 2; in both cases the third part of the subgroup closes with a final a fifth higher than the principal final.

TABLE 4

Tonal plan of Lasso's *Lagrimae di San Pietro* (Munich, 1595) à 7 (Tansillo)

madrigal no.	system	ambitus ¹	final	mode
1	\flat	c ₁	D	1
2	\flat	c ₁	D	
3	\flat	c ₁	A	
4	\flat	c ₁	D	
5	\flat	c ₁	G	2
6	\flat	c ₁	G	
7	\flat	c ₁	D	
8	\flat	c ₁	G	
9	\flat	c ₁	A	3/4
10	\flat	c ₁	E	
11	\flat	c ₁	A	
12	\flat	c ₁	E	
13	\flat	g ₂	F	5
14	\flat	g ₂	C	
15	\flat	g ₂	F	
16	\flat	c ₁	F	6
17	\flat	c ₁	C	
18	\flat	c ₁	F	
19	\flat	g ₂	D	7
20	\flat	g ₂	G	
21 ²	\flat	g ₂	A	?

¹ c₁ = c₁ c₁ c₃ c₃ c₄ c₄ F₄

g₂ = g₂ g₂ c₂ c₂ c₃ c₃ F₃

² In Latin: *vide homo, quae pro te patior*.

There is no authentic-plagal contrast made for the next set of four pieces in the *Lagrimae* cycle. The tonal type \flat -c₁-E represents mode 3 and mode 4 together, with secondary finals a fourth higher on A for the first and third parts in the subgroup. The elimination of authentic-plagal contrast for modes 3 and 4 is common in modally ordered collections; it reflects a belief that the *ambitus* of these two modes was

very nearly the same in practice. Glarean, for instance, having pointed out that many mode 4 chant pieces fall short at the bottom and have the compass *C-c* while a number of mode 3 pieces fall short at the top and have the compass *D-d*, observed that "it is true what some musicians say, that indeed no two modes are more closely joined than the Hypophrygian and the Phrygian."²⁷

The two sets of three pieces embodying authentic mode 5 and plagal mode 6 are contrasted by *ambitus* in the usual way and have their "regular" final: tonal types $\flat\text{-g}_2\text{-F}$ versus $\flat\text{-c}_1\text{-F}$. Mode 7 is also represented in the usual way, with a subgroup of two pieces set in the tonal type $\natural\text{-g}_2\text{-G}$. Mode 8 is conspicuously missing, however; its expected place is occupied by a single composition setting the added Latin *envoi*, a composition using the tonal type $\natural\text{-g}_2\text{-A}$. This is a tonal type Lasso used frequently, but only twice in modal collections, and both times anomalously (see also Table 14). By no conceivable rationalization could it be construed here as a compositional representation of mode 8. I am tempted to link the change from Italian to Latin text with the ever diminishing number of pieces in each modal category and the final breaking off of the modal order, and I wonder if here, too, mode may be being used as a religious symbol. The cycle was Lasso's last work—the dedication to Pope Clement VIII Aldobrandini was signed three weeks before his death—and the words of the Savior set in the Latin *envoi* "Behold, o man, what things I have suffered for you" are as removed from Tansillo's Italian cycle—it is now at last Christ Himself who speaks from the cross—as the tonal type $\natural\text{-g}_2\text{-A}$ is removed from the modal cycle. The abandonment of both may be read as symbolizing Lasso's expectation of his own imminent abandonment of this world, including Christ's Church on earth, and his hope, through Christ's sacrifice on the cross, of a better world to come.

The tonal type $\natural\text{-g}_2\text{-A}$ also plays a role in a spiritual madrigal cycle of Palestrina's, a cycle where the traditional eightfold scheme of the church likewise seems to have been used as an expression of spiritual piety, a symbol of faith rather than an expression of affect. Table 5 summarizes the tonal types of the first eight compositions of Palestrina's spiritual madrigals of 1581.²⁸ That this was set up from the outset as a conscious embodiment of the eightfold modal structure is obvious not only from the predictable distribution of tonal types for modes 3

²⁷ Glarean, *Dodecachordon*, p. 266; trans. Clement Miller, p. 254.

²⁸ See Powers, " 'Vestiva i colli', " pp. 39-45.

TABLE 5

Tonal plan of Palestrina's *Vergine* cycle: *Madrigali* (spirituali) à 5
(Rome, 1581), Nos. 1-8 (Petrarch)

madrigal no.	system	ambitus	final	mode
1	♭	g ₂ c ₂ c ₃ c ₃ c ₄	A	1
2	♭	g ₂ c ₂ c ₃ c ₃ c ₄	D	2
3	♭	c ₁ c ₃ c ₄ c ₄ F ₃	E	3
4	♭	c ₂ c ₃ c ₄ c ₄ F ₄	E	4
5	♭	g ₂ c ₂ c ₃ c ₃ F ₃	F	5
6	♭	c ₁ c ₃ c ₄ c ₄ F ₄	F	6
7	♭	g ₂ c ₂ c ₃ c ₃ c ₄	G	7
8	♭	c ₁ c ₃ c ₄ c ₄ F ₄	G	8

to 8 but also from the fact that only eight of the eleven poems of Petrarch's famous and often polyphonically composed *Vergine* cycle were used. As with the Lasso Penitential Psalms so with the Palestrina *Vergine* madrigals, it is the number eight, the eight modes in their proper order, that is important, not any hypothetical appropriateness of inherent general modal affect to the mood of a text. And like them also the restriction of contrasted *ambitus* only to outer voices in Nos. 3 and 4 represents the traditionally reduced contrast in practice between authentic mode 3 and plagal mode 4. The representation of the authentic-plagal contrast in modes 1 and 2, however, is quite special. Mode 2, as usual, is represented as transposed, but here as though up an octave, by using the tonal type ♭-g₂-D. Mode 1, however, is represented by the tonal type ♭-g₂-A. This representation for mode 1 is found only in Palestrina's works, so far as I know. And though ♭-g₂-A is a tonal type Palestrina used often, he used it only one other time as a modal representative, in the *Offertoria* of 1593.

Palestrina's other collection of spiritual madrigals, the *ottava rima* "Figlio immortal" cycle of 1594, also follows the order of the modal system of the church; its tonal plan is summarized in Table 6. The modal representation is rather more conventional than that of the *Vergine* cycle, both in the use of ♭-g₂-G versus ♭-c₁-G for the authentic and plagal of the *protus* modes (modes 1 and 2), and in the absence of any authentic-plagal distinction in the *deuterus* (modes 3/4).

Three aspects of the relationships between tonal types and modal categories seem to me to lend particular support to the idea that one should make a distinction between them. First, there are one-to-many

TABLE 6

Tonal plan of Palestrina's *Madrigali spirituali* à 5 (Rome, 1594)

madrigal nos.	system	ambitus ¹	final	mode
1-5	b	g ₂	G	1
6-10	b	c ₁	G	2
11-16	♭	c ₁	E	3/4
17-20	b	g ₂	F	5
21-23	b	c ₁	F	6
24-27	♭	g ₂	G	7
28-30	♭	c ₁	G	8

¹ g₂ = g₂ c₃ c₃ F₃/c₄ Qc₁ = c₁ c₃ c₄ F₄ Q

The fifth voice (Q) is always an inner voice. The bass is c₄ in Nos. 24-28, representing mode 7, F₃ in Nos. 1-5 (mode 1) and 17-20 (mode 5).

correspondences going both ways: most of the modal categories can be represented by more than one tonal type, and occasionally a single tonal type can be found representing more than one modal category. Second, even at the height of their conscious application in the latter part of the sixteenth century, polyphonic modes were not always recognized as such. Third, different tonal types have quite different patterns of use in modal collections as opposed to non-modal collections.

We have now seen three different ways in which the contrast of authentic-plagal modes 1 and 2 has been represented in polyphonic cycles. Yet a fourth may be seen in Lasso's celebrated duos of 1577 (see Table 7). The first twelve pieces, those with text, represent the eight modes in order. The first six of these duos are for the two high voices and the last six for the two low voices; the appropriate pairs of clefs from the high set of four *chiavette* or the low set of four "normal" clefs are assigned to the voice pairs involved. Duos 1 and 2 represent mode 1 as though in its "regular" position, with tonal type ♭-c₁-D. Duos 3 and 4 are then set in ♭-g₂-D, representing mode 2 as though transposed up an octave, like the mode 2 representative in Palestrina's *Vergine* cycle. The fact that the registral contrast is the reverse of the norm—the plagal representative in the modal pair with the same final lies higher than the authentic, not lower—is of no consequence. Lasso's intentions are perfectly clear from the ordering alone.

The following diagram summarizes these four ways of representing the authentic-plagal contrast in the *protus* modes with polyphonic tonal types:

	mode 1 authentic Dorian	mode 2 plagal Hypodorian	contrast represented by
Rore, Madrigals (1542)	b-g ₂ -G	b-c ₁ -G	<i>ambitus</i>
Lasso, Penitential Psalms	♭-c ₁ -D	b-c ₁ -G	system and final
Lasso, Duos (1577)	♭-c ₁ -D	♭-g ₂ -D	<i>ambitus</i> in reverse
Palestrina, <i>Vergine</i> cycle	♭-g ₂ -A	♭-g ₂ -D	final alone

One easily sees here how a given mode can be represented by more than one tonal type; for example, mode 1 has three representatives. But more than that, one of these, ♭-g₂-A, has already been seen apparently assigned to mode 3, in Nos. 10–12 of Tylman Susato's chansons of 1544 for two and three voices (see Table 3). Thus a single tonal type is found representing one mode in Italy in the 1580s and another in the Low Countries in the 1540s.

Susato's assignment of ♭-g₂-A chansons to a mode 3 position, where they are contrasted with several pieces in tonal type ♭-c₁-A occupying the expected position of mode 4, is rare in modal collec-

TABLE 7
Tonal plans of Lasso's . . . *ad duas voces cantiones* (Munich, 1577)*

duo no.	system	<i>ambitus</i>	finals	mode
{ 1	♭	c ₁ c ₃ — —	d'/d' } d''/d' }	1
2	♭	c ₁ c ₃ — —	d''/d' }	
{ 3	♭	g ₂ c ₂ — —	d'/d' } d''/d' }	2
4	♭	g ₂ c ₂ — —	d''/d' }	
5	b	g ₂ c ₂ — —	a'/a	3
6	b	c ₁ c ₃ — —	a'/a	4
7	b	— — c ₃ F ₃	f/f	5
{ 8	b	— — c ₄ F ₄	f/F } f/F }	6
9	b	— — c ₄ F ₄	f/F }	
10	♭	— — c ₃ F ₃	g/g	7
{ 11	♭	— — c ₄ F ₄	g/G } g/g }	8
12	♭	— — c ₄ F ₄	g/g }	
{ 13	b	g ₂ c ₃ —	g'/g } g'/g }	1
14	b	g ₂ c ₃ —	g'/g }	
{ 15	b	g ₂ c ₃ —	g'/g' } g'/g }	2
16	b	c ₁ c ₄ —	g'/g }	
{ 17	b	c ₁ c ₄ —	g'/g' } g'/g }	2
18	b	c ₁ c ₄ —	g'/g }	
19	♭	— c ₄ F ₄	e/E	4
20	♭	— c ₄ F ₄	f/F	6
{ 21	♭	— c ₃ C ₄	g'/g } g/g }	7
22	♭	— c ₃ C ₄	g/g }	
{ 23	♭	— c ₄ F ₄	g/G } g/G }	8
24	♭	— c ₄ F ₄	g/G }	

*Duos Nos. 1–12 are with text, Nos. 13–24 without text.

tions. The only other instance I know of is found in LeRoy and Ballard's modal reordering of two Lasso motet collections, RISM 1582f and 1585a in RISM 1587a. The type $\natural\text{-g}_2\text{-A}$ is rare as a modal representative in any case; $\natural\text{-c}_1\text{-A}$ on the other hand is the principal tonal type, occupying the mode $3/4$ position, in Volume IX of Tylman Susato's five-voice motet series of 1553 (see Table 15). The single instance of type $\natural\text{-g}_2\text{-A}$ in the five-voice volumes is the Jacobus Vaet *Miserere*, printed in both Volumes IX and XIV.

The types $\natural\text{-g}_2\text{-A}$ and $\natural\text{-c}_1\text{-A}$ seldom appear together even in non-modal collections. Unlike other pairs of tonal types with the same final, they have very little in common. Palestrina's tonally unordered four-voice motets of 1563 is one of the few collections in which both are well represented, there being three of each out of thirty-six motets in all. Example 1 shows the initial points (the *exordia* in musical rhetoric) of all six. The three incipits in $\natural\text{-g}_2\text{-A}$ are all oriented around the modal fifth, *re-la*, at the two positions $a'-e''$ and $d'-a'$, and the *littera a* functions as *re* in the one case and *la* in the other, while the *vox* for the *littera e* is usually *la*. In the incipits of motets in $\natural\text{-c}_1\text{-A}$, conversely, the *littera e* is almost always *mi*, and the emphasis is on the modal fourth, *mi-la*, at the position $e'-a'$; it is answered twice with *re-sol* ($a-d'$) and once with *mi-la* ($b-e'$). The cadential distributions are as highly contrasted. In $\natural\text{-g}_2\text{-A}$, *a* and *d* are the only cadential degrees, with the exception of one cadence to *e* (in No. 34) and one to *c* (in No. 31). In $\natural\text{-c}_1\text{-A}$, *e* is the most frequent cadential degree after *a*, while *d* is not used at all cadentially. The same general pattern of cadential degrees is found in the two groups in the Susato chansons à $2/3$ of 1544. Chansons in both groups cadence frequently to *a*, but Nos. 10–12 have no cadences to *e*, while Nos. 14–20 frequently cadence to *e*; No. 19 in fact is an E-tonality piece in its original four-voice form as Josquin's "Milles regretz," and the bass on *a* at the end is beneath a final "Phrygian" cadence to *e*. No. 20, the "reponce" to No. 19, is similarly disposed.

The association of *a* with *d* in $\natural\text{-g}_2\text{-A}$ and of *a* with *e* in $\natural\text{-c}_1\text{-A}$ is a consequence of system structure as well as of compositional tradition. The dual modal affinity of *a* was recognized explicitly throughout the Middle Ages and Renaissance, as far back as Chapter 8 of Guido's *Micrologus*, and on to and including Aaron.²⁹

²⁹ See Strunk, ed., *Source Readings*, pp. 208, 213, 215, and the compositions cited. See also Bergquist, "The Theoretical Writings," pp. 276–79 with Table 9, and 286–91 with Table 14. Aaron's contrasted *protus* A-modes and *deuterus* A-modes correspond closely with the contrast of tonal types $\natural\text{-g}_2\text{-A}$ and $\natural\text{-c}_1\text{-A}$, as one would expect from the built-in systemic contrast of $d-a$ (*re-la*) versus $a-e$ (*la-mi*).

Example 1

Characteristic figures for \sharp_2 -g₂-A vs. \sharp_1 -c₁-AIncipits from Palestrina's *Motecta festorum totius anni* (1563, repr. of 1590)

15. \sharp_2 \sharp_1 \circ

la fa sol la re la re

la fa sol la re la

re

31.

la re fa sol la / fa / la sol fa mi re

la re fa sol la

/fa mi/ la sol fa mi

34.

la la fa la

la la /fa/ la re

re

Example 1, continued

17.

C1
mi sol la mi /fa mi/ la sol fa mi re

C3
re fa sol re /fa/ la sol

C1
la sol fa/ la sol fa mi re

C3
fa mi re mi fa mi re

25.

C1
mi

C3
mi la la fa mi re ut fa mi

C4
mi la sol /fa, mi/ la sol

C1
la sol /fa mi/ la sol fa mi

C3
fa mi la

36.

C1
mi la sol /fa mi/ la sol fa mi

C3
re sol fa /fa mi re/ fa mi re

*entrance of other voices not shown

Another instance of one tonal type representing more than one mode, this time very curiously in the same context, appears as Example 2, which shows the incipits of both parts of two motets by Christian Hollander that were published in Susato's motet series from 1553 (see Table 15). *Congratulamini* was printed in Book XI, which includes a number of other motets of the same tonal type \flat - g_2 -C, as well as a number belonging to the tonal type \flat - c_1 -F, both representing mode 6. *Beatus athleta* and one other belonging to the tonal type \flat - g_2 -C appear in Book XII, which otherwise only contains pieces in \flat - g_2 -G, the tonal type ubiquitously used in collections to represent mode 7.

It looks as though the assignments of these two Hollander motets must have been made solely on the basis of the opening melodies, without regard to finals or to other parts of the pieces. The word "Congratulamini" in both opening voices is set to a conventional and characteristic mode 6 figure, *ut-fa-sol-la* (g - c - d - e in the hard hexachord, c - f - g - a in the natural hexachord). The setting of "Beatus athleta," with its *ut-sol* opening and emphasis on *sol* (in both hexachords), is just as characteristic for mode 7, and probably is responsible for the inclusion of the piece in the mode 7 volume even though both parts of the motet end with a "C-major triad." The incipits of the second parts of *Congratulamini* and *Beatus athleta* both contradict the modal assignment of the motet: the words "tulerunt dominum," from the motet published in the mode 6 volume, are set to the characteristic *ut-sol* of mode 7, in both voices; the words "tu concede mihi," from the motet published in the mode 7 volume, are set to the characteristic mode 6 figure *fa-ut-fa-sol-la*, again in both voices.

It may be that the inclusion of two \flat - g_2 -C motets in Susato's Book XII should be written off as an editorial blunder; certainly the Franco-Flemish tradition of using \flat - g_2 -C to represent mode 6 was very strong, and I know of no other instances of \flat - g_2 -C being used for mode 7 in an actual modal collection. There is, however, an Italian theoretical tradition for claiming this type for mode 7. It began with Aaron, and may be illustrated most clearly in his assignment of Josquin's chanson "Comment peut avoir joye," whose type is \flat - g_2 -C, to mode 7.³⁰ The tenor compass is g - g' , the "perfect" modal octave for mode 7 (the

³⁰ See the passage in translation in Strunk, ed., *Source Readings*, pp. 217-18. The chanson is transcribed in Ottaviano Petrucci, *Canti B*, ed. Helen Hewitt, *Monuments of Renaissance Music*, II (Chicago, 1967), pp. 148-49, and as "O Jesu fili David" in Glarean, *Dodecachordon*, trans. Miller, II, 434-36. Glarean of course calls it Hypoionian (his mode 12).

Example 2

TONAL TYPES AND MODAL CATEGORIES

4-g₂-C as mode 6 and mode 7

(a) Tylman Susato, *Liber ecclesiasticarum cantionum*, XI, No. 2 Christian Hollander

Con - gra - tu - la - - mi - ni mi - - - - - hi

Con - gra - tu - la - - mi -

om - - - - - nes

ni mi - hi om - nes

Secunda pars

Tu - le - runt Do - mi - num me - um

Tu - le - runt Do - - mi -

num me - um

num me - um

(b) Tylman Susato, *Liber ecclesiasticarum cantionum*, XII, No. 13 Christian Hollander

Be - a - tus ath - le - ta Chri - sto - fo - rus

Be - a - tus ath - le - ta

Chri - sto - fo - - - rus

Chri - sto - fo - - - rus

Secunda pars

Tu con - ce - de mi - - hi

Tu con - ce - de mi - - hi

*entrance of other voices not shown

cantus with the identical melody is an octave higher); the “final” *c'* was regarded by Aaron as legitimate for mode 7 because *c'* is a *differentia* in psalm-tone 7; the *ut-sol* species of fifth that characterizes mode 7 is worked over and over in the composition, though it lies between *c'* and *g'* rather than in its “regular” *g-d'* position. Aaron’s enthusiastic disciple Illuminato Aiguino followed his “irrefragibile Maestro” in many matters, including the use of psalm-tone differences as pseudo-finals.³¹ Example 3 shows Josquin’s real and Aiguino’s invented tenors

Example 3

Tenors ending on *c'* as mode 7

(a) Josquin, “Comment peut avoir joye,” cited by Aaron for mode 7

³¹ See Illuminato Aiguino, *Il tesoro illuminato di tutti i tuoni di canto figurato* (Venice, 1581), fol. 72^r.

(b) Aiguino, *Il tesoro illuminato di tutti i tuoni di canto figurato*, 72^r, illustration for mode 7 with “extraordinary” final

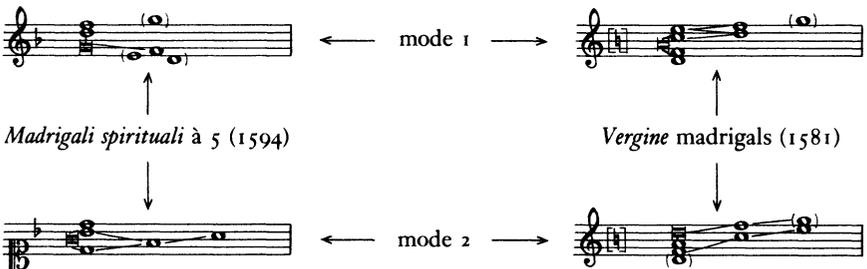


that are used to illustrate mode 7 with termination on *c'* in this tradition.

The existence of even a few many-to-one relationships between tonal type and modal category would seem to argue against taking the two as merely equivalent. The great differences in musical character between the two “Hypodorian” (mode 2) tonal types $\flat\text{-}c_1\text{-}G$ and $\natural\text{-}g_2\text{-}D$ cannot be explained away as a mere matter of transposition. We have noted that not only modern scholars like Hermelink and Meier, quoted earlier, have found $\natural\text{-}g_2\text{-}D$ a little difficult to reconcile with traditional modal theory on a one-to-one basis; Banchieri in 1613 went so far as to regard $\natural\text{-}g_2\text{-}D$ as authentic rather than plagal (see n. 17), and Susato gave it a separate volume in his octenary motet series of 1553 (see Table 15, Volume XIV). Just as striking are the differences between $\natural\text{-}g_2\text{-}A$ and $\flat\text{-}g_2\text{-}G$, both of which were used by Palestrina to represent mode 1 in modally organized collections. Example 4 summarizes the musical characteristics of these four tonal types with Hermelink’s “constituent tone” analytic formulas; it also illustrates Palestrina’s modal use of these tonal types in his two spiritual madrigal cycles.

Example 4

The “constituent tones” of four tonal types used by Palestrina (after Hermelink, *Dispositiones modorum*, p. 142), and their use as representatives of the authentic and plagal protus modes in Palestrina’s spiritual madrigal cycles. Cantus parts, \natural = “Grundton”



A second line of argument in favor of investigating the structure of tonal types and their use as modal representatives separately turns on the variability in how modality/tonality was understood. Even where modal representation was clearly intended it was not always recognized. A case in point is Lasso's first Munich motet collection, published in July 1562 (see Table 8). It is modally ordered; we have the testimony of Lasso's disciple Leonhard Lechner,³² if the structure alone were not enough (Table 8-A). In November of the same year the same collection was brought out in Venice by Antonio Gardano (Table 8-B). The pieces are grouped musically, according to system-clef combinations, and except for Nos. 15-21 (Munich Nos. 19-25),

TABLE 8
Tonal plans of Lasso's *Sacrae Cantiones* of 1562 in the earliest editions,
each reprinted many times

A. Original edition (Munich, July 1562)

motet nos.	system	ambitus*	final	mode
1-4	b	g ₂	G	1
5-10	b	c ₁	G	2
11-14	b	c ₁	E	3/4
15-18	b	g ₂	F	5
19-20	b	g ₂	C	6
21-23	b	g ₂	G	7
24-25	b	c ₁	G	8

*g₂ = g₂ c₂ c₃ F₃ Q / c₁ = c₁ c₃ c₄ F₄ Q

The fifth voice (Q) is normally an inner voice, except in nos. 4, 19, and 20, where it is a second g₂.

B. Gardano's "Liber primus" (Venice, November 1562)

motet nos.	system	ambitus*	final	no. in Munich original
1-4	b	g ₂	G	1, 2, 3, 4
5-8	b	c ₁	E	12, 11, 13, 14
9-14	b	c ₁	G	5, 6, 7, 10, 9, 8
15	b	g ₂	C	19
16	b	g ₂	G	21
17	b	g ₂	C	20
18	b	g ₂	G	22
19-20	b	c ₁	G	24, 25
21	b	g ₂	G	23
22-25	b	g ₂	F	17, 18, 15, 16

*The cleffing is the same as in the Munich edition.

³² Published by Georg Reichert, in "Martin Crusius und die Musik in Tübingen um 1590," *Archiv für Musikwissenschaft*, X (1953), 210-12.

by final also. Yet the modal ordering so clearly reflected in the Munich disposition of the collection is completely destroyed in Gardano's arrangement. It seems clear that Gardano, though he was himself a composer, was not aware that the motets he printed could be arranged in cyclic order of the church modes, and grouped them as best he could by tonal type. Gardano printed many collections of Lasso motets, grouped in various ways, but none of them in modal order. The closest to such an ordering is his 1566 "*liber quartus*" of six-voice motets (the last two are for eight voices), the only one of Gardano's Lasso collections that contains all new pieces. The tonal plan is shown in Table 9. It is not merely a grouping by system-clef combination—the finals are clearly a crucial criterion—yet it is hardly modal either. If it were, the order is strangely skewed, representing modes 2, 8, 5, 6, 1, 3, 4, and 1 for the six-voice motets, and it would be curiously both incomplete, since there is no mode 7, and over-complete as well, since modes 3 and 4 would be separately represented. It seems more likely that Gardano's primary groupings are by final, subdivided then by systems of cleffing. All the "g pieces" are together, in subgroups of *cantus mollis* vs. *cantus durus*; all the "f pieces" are together, in subgroups of *chiavette* vs. "standard" clefs; last is a group of *cantus durus* pieces with finals on *d* and *e*.

TABLE 9
Tonal plan of Lasso's *Sacrae cantiones à 6, à 8*
(Gardano's "*Liber quartus*," Venice, 1566)

motet nos.	system	ambitus*	final
1-3	b	c ₁	G
4-5	h	c ₁	G
6	b	g ₂	F
7-8	b	c ₁	F
9	h	c ₁	D
10	h	c ₁	E
11	h	c ₂	E
12	h	c ₁	D
(à 8)			
13	h	c ₁	E
14	b	c ₁	F

A third kind of consideration in my belief that "tonal types" are essentially pre-compositional entities and not simply to be equated with "modes" in the received doctrines (Renaissance or modern) has to do with the differing distribution of tonal types in modal and non-modal collections of works by the same composer. This can be illustrated by the two large editions of Lasso's motets that appeared in

1582. Tables 10 through 12 refer to a large, modally ordered reprint collection published by the Widow Gerlach in Nürnberg, designated by the RISM siglum 1582c. Table 13 shows the nature and distribution of tonal types in the three collections of new Lasso motets published by Berg in Munich in the same year, which are organized only by system and cleffing.

1582c is ordered first according to the number of voices. Within each of those divisions the motets are arranged in order of the eight church modes, with the exception of Nos. 7–15, four-voice settings of the nine Lessons from Job for the Office of the Dead. 1582c was compiled “with the consent of the author” from the six earlier collections whose RISM sigla are given in the left column of Table 10.

TABLE 10

Lasso 1582c: A composite edition of modal sets . . . *praestantissimi fasciculi . . . antea seperatim excusi nunc vero auctoris consensu in unum redacti* (Nürnberg, Gerlach)

	à 4	à 5*	à 6	à 8	
1562a		(25)			
1565e	7–15				Lessons from Job, not in modal order
1569a		(13)	81		
1570c			73–80	84–85	
1571a		(19)			
1573d	1–6			83	“four-language album” Latin motets
—				82	prior source not known
1582c	1–15	*16–72	73–81	82–85	

*See Table 12 for interleaved arrangement of the five-voice motets, the bulk of the collection.

All except 1565e and 1573d had originally been in modal order also. The four-voice Lessons from Job retained their original liturgical order when they were reprinted as Nos. 7–15 of 1582c, but the six four-voice Latin motets from 1573d were rearranged from their original ordering by system and cleffing, shown in Table 11-A, into a modal order, as shown in Table 11-B. The five-voice motets in 1582c comprise the contents of three earlier modally ordered five-voice collections, interleaved in chronological order of the three source collections, with corrections in two positions where the sources erroneously had got the pieces out of modal order, as shown in Table 12.

TABLE 11

Four-voice motets from Lasso 1582c*: tonal types rearranged to represent modal categories

A. Lasso, 1573d, Nos. 1-6					
no.	system	cleffing	final		
1	b	g ₂	G		
2	b	g ₂	F		
3	b	c ₁	G		
4	b	c ₁	G		
5	♭	c ₁	D		
6	♭	c ₁	E		
B. Lasso, 1582c, Nos. 1-6					
no.	system	ambitus	final	mode	no. in 1573d
1	b	g ₂	G	1	1
2	♭	c ₁	D	1	5
3	b	c ₁	G	2	3
4	b	c ₁	G	2	4
5	♭	c ₁	E	3/4	6
6	b	g ₂	F	5	2

*Nos. 7-15, the nine Lessons from Job for the Office of the Dead, are in liturgical, not modal order in 1582c as in 1573d.

Conspicuously absent from all the modally organized collections that went into 1582c is the tonal type ♭-g₂-A. Yet this type was frequently used by Lasso. For example, it occurs in six of the fifty-two independent new motets published in 1582d/e/f, as shown in Table 13. That amounts to nearly twelve percent of the whole in frequency of use, making it stand fourth among the twelve tonal types represented. In the many demonstrably modal collections by Lasso, to the contrary, the tonal type ♭-g₂-A appears only twice, both times anomalously, and at the very end of Lasso's life. One instance is the single Latin *envoi* at the end of the madrigal cycle *Lagrimae di San Pietro* discussed earlier (and see Table 6). The other appearance of ♭-g₂-A in a modal context is as Nos. 21-22 of Lasso's last motet collection, published in 1594 (see Table 14). These two pieces occur in an unmistakably modally ordered set, between groups clearly representing modes 6 and 8, yet no rationalization I have been able to devise allows me to consider them as reasonable representations of mode 7. They cannot, for instance, be taken as embodiments of psalm-tone 7,

TABLE 12

Five-voice motets from Lasso 1582c

1582	system	ambitus	final	earlier source	mode
16-19	b	g ₂	G	1562 : 1-4	1
20	h	c ₁	D	1569 : 1	
21	b	g ₂	G	1569 : 2	
22-25	b	g ₂	G	1571 : 1-4	
26-31	b	c ₁	G	1562 : 5-10	2
32	h	g ₂	D	1569 : 3	
33-35	b	c ₁	G	1571 : 8, 5-6	
36	b	c ₁	A	*1571 : 7	3/4
37-40	h	c ₁	E	1562 : 11-14	
41-44	h	c ₁	E	1569 : 4-7	
45-47	h	c ₁	E	1571 : 9-11	
48-51	b	g ₂	F	1562 : 15-18	5
52-53	b	g ₂	F	1571 : 12-13	
54-55	h	g ₂	C	1562 : 19-20	6
56	h	g ₂	C	1569 : 8	
57-60	b	c ₁	F	1569 : 10-13	
61	b	c ₁	F	1571 : 14	
62	h	c ₁	F	1571 : 15	
63-65	h	g ₂	G	1562 : 21-23	7
66	h	g ₂	G	*1569 : 9	
67-68	h	g ₂	G	1571 : 16-17	
69-70	h	c ₁	G	1562 : 24-25	8
71-72	h	c ₁	G	1571 : 18-19	

*Out of modal order in the earlier source, put in correct position in 1582c.

for they show no trace of any of its melodic features. Yet to say they are out of order is no help; the otherwise modally ordered collection will lack mode 7 no matter where the h-g₂-A pieces are inserted.

Palestrina also used the h-g₂-A type very frequently; Hermelink reckons it as used for nine percent of Palestrina's *oeuvre*, which makes it the fourth most frequently used out of sixteen (*Dispositiones modorum* p. 101). Yet Palestrina used it only twice as a modal representative, for No. 1 of the *Vergine* madrigals of 1581 and Nos. 1-4 of the *Offertoria* of 1593.

If h-g₂-A is to be considered a mode, its identification is certainly ambiguous. For Palestrina it was sometimes mode 1. For Lasso, so far as the musical evidence goes, its modality is anomalous. Lasso's student Leonhard Lechner proposed that mode 9 of the dodecachordal

TABLE 13

Lasso 1582d-f: a set of non-modal collections . . . *pie cantiones/sacrae cantiones/motetta* . . . (Munich, Berg)

system	clefs	finals	1582f (à 4)*	1582d (à 5)	1582e (à 6)
b	c ₁	{ G	10	1-2	1-2, 4-5, 7
		{ F	11-12	3-6	3, 6
	g ₂	{ F	—	7-8	8
		{ G A	— —	9-11 —	— 9
b	c ₁	{ D	16	—	10
		{ E	13,	12-13, 16	11
		{ G	14-15, 17, 19	14-15	12
	g ₂	{ D	—	—	14
		{ A	—	17, 19	13, 15, 19-20
		{ G C	18, 20	20-21 18	16 17-18,

* Nos. 1-9 constitute another setting of the Lessons from Job.

TABLE 14

Lasso's *Cantiones sacrae 6 vocem* (Graz, 1594)

nos.	system	ambitus	finals	mode
1-3	b	g ₂	G	1
4-6	b	c ₁	D	1
7-11	b	c ₁	G	2
12-15	b	c ₁	E	3/4
16-17	b	g ₂	F	5
18	b	g ₂	C	6
19-20	b	c ₁	F	6
21-22	b	g ₂	A	[?]
23-26	b	c ₁	G	8
27	b	c ₁	E	(4)
28	b	g ₂	G	(7)
29	b	c ₁	F	(6)
30	b	c ₁	D	(1)

system, which is in effect \flat - g_2 -A, was equivalent to the traditional *tonus peregrinus* of the chant psalm-tones.³³ If this had been Lasso's view, then the Latin *envoi* concluding the *Lagrima di San Pietro* would be in modal order, though one would still want to explain why mode 8 was not used. The placement of \flat - g_2 -A in the Graz series of 1594, however, would remain a puzzle; there is no warrant for the *tonus peregrinus* to appear between modes 6 and 8 in place of mode 7.

Another illustrative case is that of the tonal type \flat - g_2 -C. In the Franco-Flemish tradition this type is very frequently used to represent mode 6, as though transposed in the medieval sense, as in Book XI of Susato's motet series from 1553 (see Table 15), Lasso 1562a, 1569a, 1571a (see Table 12), 1594a (see Table 14), and others. The tonal type \flat - g_2 -C was also a favorite of Palestrina's (it is the type of the Pope Marcellus Mass), yet not once did he ever use it in a modal collection. There is no justification for believing he thought of it as "Ionian," since he published several differently ordered modal collections all of which are octenary. He never used it in the Franco-Flemish way to represent mode 6. Nor is there any reason to suppose he would have thought of \flat - g_2 -C as mode 7, in the manner of Aaron and Aiguino, though since that is at least an Italian tradition mode 7 would be the most likely candidate. In short, no plausible modal category of any kind can be claimed for the tonal type \flat - g_2 -C in Palestrina's *oeuvre*.

The implication of all these imbalances and anomalies in the relationship of tonal types and modal categories is clear. Where the musical characteristics of a tonal type fit the traditional features of a modal category well, the tonal type was easily and often used to represent it. Where the tonal type fits less well, as with the A-tonalities and C-tonalities, it was less frequently used by composers as a modal representative, or used ambiguously, or even not at all, though it might be widely used in the repertory as a whole. In short, a mode is always a tonal type, but a tonal type is not always a mode.

To summarize, then, contrasting patterns in system, in cleffing representing *ambitus*, and in final sonority can be seen as objective criteria minimally marking off one from another a certain number of tonal types, each with its own distinctive musical profile. Though these tonal types were frequently used to *represent* church modes it leads only to confusion to treat them as though they somehow *were* church modes. The anthropologist's distinction of "etic" from "emic" is useful here, and the church modes might better be regarded as

³³ See Reichert, "Martin Crusius," p. 210.

culture-contextual “emic” musical concepts while the tonal types are objectively marked “etic” musical entities.

The unwitting confusion of “emic” with “etic” approaches seems to be one principal epistemological obstacle to an understanding of the tonal structure of Renaissance polyphony. Another obstacle is the basically evolutionist stance of the important modern theories on “modality” and “tonality.” In one form Renaissance “modality” is supposed gradually to change into modern “tonality,” with in-between stages, and the development is seen mostly as a result of changes in compositional technique. This is the line followed in Dahlhaus’s *Untersuchungen über die Entstehung der harmonischen Tonalität*. In another form “modality” is supposed not so much gradually to have changed into “tonality” as gradually to have been replaced by it, and the development is seen as an ever enlarging sphere of influence of secular genres, already incipiently “tonal,” over churchly genres with their more conservative “modal” orientation. This view was put forth in Edward Lowinsky’s *Tonality and Atonality in Sixteenth-Century Music* (Berkeley, 1961).

Any evolutionist model of a historical succession from modality to tonality, however, fails on two cardinal historical points. First, as the sixteenth century wore on interest in and evidence for modality of any kind in the polyphonic repertory increased rather than lessened. Second, the major composers of the second half of the century, notably Palestrina and Lasso, followed the old system of eight church modes when they followed any modal scheme at all, and did not even go so far as to make use of Glarean’s (and soon Zarlino’s) more up-to-date and systematic scheme of twelve modes.

All these problems are much eased by the notion of modal representation, whereby etic tonal types and emic modal categories are examined separately in their own terms—music-analytically and music-theoretically, respectively—and correlated where the evidence warrants. Any question as to how or whether “modality” evolved into “tonality” is therefore really a non-question, since they are of different orders. This is not to say that a particular sixteenth-century “tonal type” did not evolve into a particular seventeenth-century and then eighteenth-century “tonality.” To the contrary, I am sure that sixteenth-century ways of composing in the tonal types $b-g_2-G$ and $b-c_1-G$ are directly ancestral to ways of composing in eighteenth-century G minor, and that the very different tonal types $b-g_2-A$ and $b-c_1-A$ are among the progenitors of A minor. I am just as sure that the well-recognized if ill-defined differences between eighteenth-century G minor and eighteenth-century A minor turn much more on musical

TABLE 15

The tonal plan of Books V–XIV (à 5) of Tylman Susato, ed., *Liber [I–XV] ecclesiasticarum cantionum* (Antwerp, 1553, 1560 [XV])¹

Book	items	system ²	ambitus ¹	final ⁴	quantity	exceptional pieces
V	1–8, 10–16	b	g ₂	(D)G	15	
	9	b	c ₁	A/D	1	<i>Canis Domine Deus</i>
VI	1–2, 4–16	b	g ₂	(D)G	15	
	3	b	c ₁	A/D	1	<i>Cobrise Anna flore</i>
VII	1–10, 13–16	b	c ₁	(D)G	14	
	11	b	c ₁	D/D/D	1	<i>Crequillon Ne projicias</i>
	12	b, b	c ₁	G/G	1	<i>Appenzeller Aperi Domine</i>
VIII	2–6, 8–20	b	c ₁	(D)G	18	(No. 4, c ₂ = XIV, 17: <i>Canis</i>)
	1, 7	b	c ₁	(D)D	2	{ <i>Clemens Ierusalem surge</i> <i>Domin Ave Sanctissima</i>
IX	4–5, 9, 12 14–17, 19–20	} b	c ₁	(A)A	10	(<i>Louvys 7, Joh, Gallus 2,</i> <i>Rogier 1, Susato 1</i>)
	1	b	c ₁	A/E	1	<i>Manchicourt Quousque</i>
	6	b	c ₁	E/E	1	<i>Cabbiliau Anima mea</i>
	8	b	c ₁	E	1	<i>Crespel Vox in rama</i>
	11	b	c ₃ . . . F ₅	G	1	[Anon.] <i>Carmen elgiacum</i>
	7	b	g ₂	A/A	1	<i>Vaet Miserere</i> (= XIV, 13)
	13	b	g ₂	A/D	1	<i>Crespel David rex</i>
	2	b	g ₂	D/A	1	<i>Clemens Orante</i>
	18	b	g ₂	D/D	1	<i>Crequillon Te deum</i>
	3	b		D/G	1	<i>Louvys Ego dominus</i>
	10	b, b	c ₁	G/G	1	<i>Clemens Iob tonso capite</i>

X	1-16	\flat	g_2	(C)F	16	Castileti <i>Decantabat</i>	
	17	\natural	c_1	C/C	1		
XI	1-5, 11, 13-14, 16-17	}	\natural	g_2	(C)C	10	[incls. Hollander <i>Congratulamini</i>]
	6-10, 12, 15 18		\flat \flat	c_1 $c_2 \dots F_4$	(F)F A/F	} 8	
XII	1-7, 10-12, 14-17	\natural	g_2	(G)G	14	{ Barbion <i>Girum colei</i> , Hollander <i>Beatus athleta</i>	
	9, 13	\natural	g_2	C/C	2		
	8	\flat	$c_2 \dots F_3$	C	1		Hauricus <i>Gaudent in coelis</i>
XIII	LOST						
XIV	1-12, 15	\natural	g_2	(D)D	13	{ Louvys <i>Dixerunt</i> Ruffus <i>Domine secundum</i> Canis <i>Tota pulcra</i> (= VIII, 4)	
	13	\natural	g_2	A/A	1		Vaet <i>Miserere</i> (= IX, 7)
	14, 16, 17	\flat	$c_2 \dots F_4$	(G)G	3		
	18	\flat, \flat, \flat	c_1	G	1		Clemens <i>Qui consolabitur</i>

¹ For individual titles see Ute Meissner, *Der antwerpener Notendrucker Tylman Susato*, pp. 85-87 *et passim*. Books I-IV à 4 are tonally ordered, each one independently; Book XV ("ex omnibus tonis") à 5/à 6 is a reprint of Lasso's "Antwerp motet book" (RISM *Einzeldrücke* 1556a). The modal categories represented in the five-voice volumes are modes 1 (V-VI), 2 (VII-VIII), 3/4 (IX), 5 (X), 6 (XI), and 7 (XII). Volume XIII clearly would have contained representations of mode 8. Volume XIV contains pieces in the tonal type \natural - g_2 -D and a few others.

² The symbol \natural designates *cantus durus*, as opposed to \flat for *cantus mollis*. All voice parts in a given piece have the same signature—from none to one, two, or three flats—except VII, 1 (Manchicourt *Pater peccavi*), where the bass has two flats to one in the other voice parts.

³ Authentic versus plagal *ambitus* are represented by cleffing. Except as otherwise indicated, all the pieces have either the cleffing $g_2 c_2 c_3 c_4/F_3$ or the cleffing $c_1 c_3 c_4 F_4$, indicated by the symbols g_2 and c_1 , respectively. In all but three cases the fifth voice is an extra inner part.

⁴ The modal *finalis* is represented by the pitch class of the lowest voice in the concluding sonority. Letters shown before the last are the finals of earlier parts in multi-part motets. An earlier part can always cadence with the final of the concluding part; where a letter other than the final of the concluding part is shown in parentheses it means that in some of the pieces of that type earlier parts end with the triad on that degree.

aspects surviving from their pasts than on putative difference in tunings. But in this evolution, from etic sixteenth-century tonal type to etic eighteenth-century tonality, emic Renaissance modality can play no direct part, however indispensable our proper understanding of it may be to our proper understanding of polyphonic music in the Renaissance itself.

Princeton University

LINKED CITATIONS

- Page 1 of 1 -



You have printed the following article:

Tonal Types and Modal Categories in Renaissance Polyphony

Harold S. Powers

Journal of the American Musicological Society, Vol. 34, No. 3. (Autumn, 1981), pp. 428-470.

Stable URL:

<http://links.jstor.org/sici?sici=0003-0139%28198123%2934%3A3%3C428%3ATTAMCI%3E2.0.CO%3B2-T>

This article references the following linked citations. If you are trying to access articles from an off-campus location, you may be required to first logon via your library web site to access JSTOR. Please visit your library's website or contact a librarian to learn about options for remote access to JSTOR.

[Footnotes]

⁴ **Music and Cultural Tendencies in 15th-Century Italy**

Nino Pirrotta

Journal of the American Musicological Society, Vol. 19, No. 2. (Summer, 1966), pp. 127-161.

Stable URL:

<http://links.jstor.org/sici?sici=0003-0139%28196622%2919%3A2%3C127%3AMACTI1%3E2.0.CO%3B2-0>

²⁵ **The Cantus-Firmus Chansons of Tylman Susato**

Lawrence F. Bernstein

Journal of the American Musicological Society, Vol. 22, No. 2. (Summer, 1969), pp. 197-240.

Stable URL:

<http://links.jstor.org/sici?sici=0003-0139%28196922%2922%3A2%3C197%3ATCCOTS%3E2.0.CO%3B2-W>