“In Their Own Native Keys”:
Tonal Organization in William Byrd’s Published Motets

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Scholars who have grappled with concepts of pitch organization in William Byrd’s music have found his three published motet collections—the Cantiones sacrae of 1575, co-authored with Thomas Tallis, and the Liber primus and Liber secundus sacrarum cantionum of 1589 and 1591, respectively—to be a tantalizing point of entry. All three collections appear to contain motets grouped by final bass pitch, and this arrangement resembles the modal ordering found in several Continental motet publications. But it is unclear how Byrd—publisher as well as composer for all three volumes—might have conceived of this organization. Polyphonic modal theory is practically absent in the treatises of late Tudor-era England, yet Byrd scholar John Harley has identified elements of both modality and a nascent “tonality” in Byrd’s output: “These are not, in sum, the modes described by Glarean and Zarlino; nor are they yet keys in a later sense of the word, even if it is difficult to know what else to call them.”

In this essay I propose that there is an appropriate and chronologically consistent term available to describe Byrd’s tonal organization; that term is “key,” which occurs repeatedly in the English treatises from the generation after Byrd, specifically in the works of Thomas Morley and Thomas Campion. Through an examination of these treatises, I draw out the contextual

definitions of the term key, which emerges as a productive means of describing Byrd’s compositional practice; and just as importantly, the term provides a path away from the Continental modal terminology that has served as a default but ill-fitting approach to the study of Byrd’s works.

What is key?
The most provocative use of the term key occurs in the most well-known English treatise, Morley’s *Plaine and Easie Introduction to Practicall Musick*. In the example shown in Figure 1, Morley’s “Master” critiques a compositional exercise of his student Philomathes by noting that he has “gone out of key”:

Ma: Yes, for you have in the closing gone out of your key, which is one of the grossest faults which may be committed.

Phi: What do you call going out of the key?

Ma: The leaving of that key wherein you did begin, and ending in another.

By beginning his exercise on what we would call a “G major” chord, and ending on an “F major” chord, Philomathes has made a “great fault”—he has not “kept his key.” In this context, key appears to represent a form of pitch or chord hierarchy, much as it does in its modern incarnation as an index of harmonic tonality: we might suggest that if this exercise ended on a “G major” chord, Philomathes would have “kept his key” and dodged Morley’s critique. But the term key also occurs in a much simpler context, with none of these harmonic implications, in the first few pages of Morley’s treatise, and it is with this simpler use that I would like to begin my exegesis of key.

Figure 2 is a table taken from earlier in this treatise: the table shows “the Scale of Music, which we term the Gam,” and nearly every singing manual of the sixteenth century, both English and Continental, begins with some version of this table.

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5. Ibid., 2.
The labels along the left side mark the treble, mean, and bass “keys,” which represent vertical position within the scale or gamut: the reader must learn “wherein every Key standeth, that is, whether in rule or in space.” Each key is identified by both “cliffe” and “note”—the English equivalent of letter and voice—so that “the next key above F fa ut is G sol re ut.” This particular use of key remains constant throughout the introductory part of the treatise, and key is used in the same manner in two other English treatises from the 1590s, William Bathe’s *A briefe introduction to the skill of song* and the anonymous *Pathway to Musicke.*

If the term key refers to a note’s position within the “Scale of Music”—which I will hereafter call gamut position—then how are we to interpret Morley’s comment on “going out of key”? Haven’t all four voices of final chord “left the key” in which they began? It appears that Morley

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6. Ibid., 3.
7. Ibid., 5.
8. John Dowland tells the reader “how the Keyes are called” in his translation of 1609 translation of Andreas Ornithoparcus’s *Musice active micrologus*, first published in 1518. The mere fact that such a work was considered worthy of print, almost a century after its initial publication, testifies to the continued relevance of this treatise in sixteenth-century England: one Oxford bookseller’s records show a “Musica activa” for sale as early as 1520. Theodor Dumitrescu, *The Early Tudor Court and International Musical Relations* (Aldershot, England: Ashgate, 2007), 215.
uses the term differently here—in the third and final part of the treatise, on composition—than in his introductory singing instruction.

A clue to reconciling these uses is found a bit earlier in the third part of treatise. After presenting a table of four-part chord construction borrowed from Zarlino’s *Istitutione armoniche*, Morley provides musical examples of these chords “whereby you may perceive (your base standing in any key) how the rest of the partes (being but four) may stand unto it.” 9 While the table taken from Zarlino is organized according to the tenor-treble interval, Morley’s examples are grouped according to bass pitch. Morley thus shifts the harmonic index of the chord from the tenor-treble interval to the bass part, and this shift is in keeping with our observations of an increasingly bass-driven harmonic approach in late sixteenth-century English works.

Returning to Philomathes’s “great fault” example, we may suppose that Morley’s “gone out of key” comment refers only to the bass part. But we may also note that Morley’s comments are specifically concerned with the ending or “close” of this exercise: it is the close in F that leaves the key of G. Thus it appears that key also has an enduring or “sticky” property to it: key is assigned to the opening bass pitch, and it changes only upon reaching a close. 10

*The role of closes*

Since it is the close that acts as a key-defining event, we may turn to Morley’s discussion of closes that precedes the “great fault” example. After stressing the role of the “cadence” or suspension in closes, Morley provides “examples of formal closes in four, five, and six parts” in a variety of keys. 11 (See Figure 3 below.) Most of Morley’s sample closes show the bass leaping down a fifth or up a fourth, resolving to an octave with the cadence-bearing voice, as in the first close given in Figure 3. The bass may also make a stepwise descent to the octave, as seen in the second close, though this form of close is much less commonly shown. A few sample closes look like what we would call plagal, with no cadence and a descending fourth or ascending fifth in the bass, as in


10. Bathe also uses key in this sense, when discussing the flat that changes the singer’s reference point of *ut*:

“Replication. It is granted by the last solution, that the flat so comming should alter the vt, doth alter the key (which is in musick a great absurditie) therefore by the last solution, there is a great absurditie granted. Solution. It is granted conditionally, that is to say, if the like happened (as in the argument objected) though sometimes in the middest of a song, to change the key, and come into it againe, is allowed. Wherefore for the names, being the least necessary and most troublesome accident, let this suffice.” (William Bathe, *A Briefe Introduction to the Skill of Song* (Aldershot, England: Ashgate, 2005), 66.) Karnes mentions Bathe’s “provocative yet ambiguous use of the word key and his intimations of something apparently akin to modulation,” which is in keeping with Morley’s “sticky” use of key, but not with Campion’s. (Bathe, *Briefe Introduction to the Skill of Song*, 32.)

11. Alec Harman notes that many of these closes were likely copied from Orazio Tigrini’s *Compendio della Musica* (1588), a summary of Zarlino’s *L‘istitutioni harmoniche*. Thomas Morley, *A Plain and Easy Introduction to Practical Music* (London: Dent, 1973), 241–42.
the last close given below; though Morley notes that these “middle closes” are rarely used to end a
piece, they are still “formal” closes, and as such may be considered key-defining events.\textsuperscript{12}

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\caption{Morley, sample closes}
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While Morley’s concept of close is well-defined by example, there are few corresponding
musical examples that show how one may “keep the key.” Further complicating these examples is
Morley’s use of a second concept, “air,” that apparently regulates the use of keys. The term air has
a history even more complex than that of key,\textsuperscript{13} and Morley’s use of air in the following passage—
the conclusion to Philomathes’s “great fault” example—appears to attribute air to both individual
keys and the song that contains them.

[...] every key hath a peculiar ayre proper unto it selfe: so that if you goe into another then
that wherein you begin, you change the aire of the song, which is as much as to wrest a thing
out of its nature, making the Asse leap upon his Master, and the Spaniell beare the loade [...] and
though the ayre of every key be different one from the other, yet some love (by a wonder
of nature) to be joined to others so that if you begin your song in \textit{Gam ut}, you may conclude

\textsuperscript{12} Morley, \textit{Plaine and Easie Introduction}, 133–34. One difficulty in assessing Morley’s use of closes is his description
of “passing” or “false” closes, defined at first when discussing three-part closes. Morley describes these closes, “being
devised to shun a final end and go on with some other purpose,” as ending on a bass-cadence interval other than an
ectave: the two forms that Morley mentions are a descending bass that forms a sixth with the cadence (our “first
inversion tonic”) and an ascending bass that forms a third (our “deceptive cadence”), and Morley indicates these
passing closes with an asterisk. A later series of three-part closes appears to add a third form of false close, in which
the bass-cadence pair does resolve to an octave, but in which the bass makes a stepwise descent. (Morley, \textit{Plaine and
Easie Introduction}, 127.) However, in his later catalog of closes with four or more parts, Morley includes these
stepwise-descent closes without comment; they are “formal closes,” suitable for use as a final close.

Comounding this confusion is Morley’s repurposing of the asterisk between sections; in the closes with four or
more parts, asterisks are used to indicate middle closes—not passing closes, which are altogether absent from this
section. All of these “middle closes” are of the ascending fourth or descending fifth variety, without cadence. This
repurposing of the asterisk is made more confusing in Harman’s 1973 edition, which conflates Morley’s “passing” and
“middle” closes; Harman adds numerous asterisks to stepwise-descent closes, applying Morley’s three-part criteria to
these later, four-or-more-part closes, and adding the stepwise-descent close to a footnoted list of “passing closes.”
Morley, \textit{A Plain and Easy Introduction to Practical Music}, 244, note 3.

\textsuperscript{13} Franklin Zimmerman chronicles the confusion surrounding this term in seventeenth-century English works,
punctuated by Roger North’s essay “What is Aire?”. Franklin B. Zimmerman, “Air, a Catchword for New Concepts
Essays By His Colleagues and Former Students At the University of Pennsylvania} (Kassel, Germany: Bärenreiter, 1980).
it either in C fa ut or D sol re, and from thence come again to Gam ut; likewise if you begin your song in D sol re you may end in A re and come againe to D sol re, &c.\textsuperscript{14}

When Philomathes presses further for a general rule, Master replies that keeping the key “must proceed only of the judgement of the composer.”\textsuperscript{15} Yet despite Morley’s somewhat muddled explanation, we do learn from the passage above that fourth or fifth relationships are likely to be significant, and that the final close of a piece should return to the opening key.

Though Thomas Campion’s treatise, \textit{A New Way of Making Fowre Parts in Counterpoint}, was published over a decade after Morley’s, Campion’s definition of key appears similar to Morley’s later definition, as sticky gamut position of the bass:

Of all things that belong to the making up of a Musition, the most necessary and usefull for him is the true knowledge of the Key, or Moode, or Tone, for all signifie the same thing, with the closes belonging unto it; for there is no tune that can have any grace or sweetnesse, unless it be bounded within a proper key, without running into strange keys which have no affinity with the aire of the song.\textsuperscript{16}

Campion’s warning against “running into strange keyes” appears to echo Morley’s caution against “going out of key.” And though Campion also invokes the term air—in this case a likely reference to melody, and not necessarily to the harmonic properties of a song\textsuperscript{17}—it is the term key that assumes the regulatory functions of Morley’s air: key is used to describe an entire musical passage, and closes are no longer considered a key-changing event. Instead, closes belong to a given key, and in this sense Campion’s use of key is even stickier than Morley’s. It is for this reason that Campion equates key with “tone” and “moode”: he may say that a song is in a key, in the same way that a modal theorist would say that a song is in a particular mode.

Having defined key, Campion instructs the budding composer how to determine the key of his or her song: look for the presence of a bass fifth, and the bottom of this fifth is the key of the song. The reader must then locate the third that bisects this fifth, and determine if the third above the bass as either “greater” or “lesser.” Once the key and third above are known, Campion

\textsuperscript{14} Morley, \textit{Plaine and Easie Introduction}, 165.

\textsuperscript{15} Ibid., 166.

\textsuperscript{16} Campion et al., \textit{New Way of Making Fowre Parts in Counterpoint}, 59.

\textsuperscript{17} Campion’s use of the term “air” as song melody was likely its most commonly understood meaning at the turn of the seventeenth century; this use appears frequently in song titles and publications, such as John Dowland’s \textit{First Booke of Songes or Ayres} (1597). (Zimmerman, “Air, a Catchword.”) Campion also uses the term in the regulatory sense, as does Morley, at the outset of the treatise: “But I will plainely convince by demonstration that contrary to some opinions, the Base contains in it both the Aire and true judgement of the Key.” Campion et al., \textit{New Way of Making Fowre Parts in Counterpoint}, 60.
recommends a system of closes—always of the cadence-bearing, descending-fifth or ascending-fourth variety\textsuperscript{18}—appropriate to the key:

The maine and fundamentall close is in the key it selfe, the second is in the upper Note of the fift, the third is in the upper Note of the lowest third, if it be the lesser third, as for example, if the key be in $G$ with $B$. flat, you may close in these three places.

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\caption{Campion, three closes}
\end{figure}

[…] But if the key should be in $G$ with $B$. sharpe, then the last close being to be made in the greater or sharpe third is unproper, and therefore for variety sometime the next key above is joyned with it, which is $A$. and sometimes the fourth key, which is $C$\textsuperscript{19}.

With this distinction, Campion has effectively separated keys with a greater third above from those with a lesser third. He refers to the keys of “$G$ with $B$ flat” and “$G$ with $B$ sharpe” to differentiate greater from lesser third, while other keys with unambiguous thirds need no such distinction: Campion later mentions the keys of $F$ and $A$ without qualifying their thirds. Here, Campion has effectively expanded Morley’s definition of key, now encompassing both the gamut position of the bass and its third above.

It is this definition that I refer to as \textit{triadic key}\textsuperscript{20} and this definition is taken up by most English treatises of the seventeenth and early eighteenth century: Christopher Simpson’s \textit{Division-Viol} of 1659 states that “[the] key is said to be either Flat or Sharp, not in respect of itself, but in

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\textsuperscript{18} Campion does not recognize Morley’s other two closes as such: for Campion, a close requires a descending fifth or ascending fourth in the bass, coupled with a cadence in an upper part: “in all these cases the part must hold, that in holding can use the fourth or eleventh, and so passe eyther into the third or tenth.” Campion et al., \textit{New Way of Making Fowre Parts in Counterpoint}, 56.

\textsuperscript{19} Ibid., 60.

\textsuperscript{20} The term triadic key is adapted from an observation by Rebecca Herissone: “It was only when Simpson came to write his compositional rules in the late 1650s that Campion’s \textit{triadic definition of key} was properly adopted, refined, and divested of most of its modal remnants.” Rebecca Herissone, \textit{Music Theory in Seventeenth-Century England} (New York: Oxford University Press, 2000), 181.
relation to the flat or sharp 3rd which is joined to it.” Though the terms “flat” and “sharp” may appear confusing to us—does “E flat” refer to the key of E with a minor third above, or to the key of Eb?—these terms are sufficient to describe the limited range of keys used in Byrd’s time, and I will continue to use the terms flat and sharp, spelled out (not as accidentals), when describing triadic key.

Despite the differences in terminology and presentation found between Campion’s and Morley’s descriptions of key, it is quite possible to see that both authors describe a similar means of tonal organization. Both authors provide a harmonic (not scalar) definition of key that relies on the bass voice, and both look to the closes of a piece to determine the presence and well-formedness of key. Both authors stress consistency (“keeping the air”) between internal and final closes; Campion in particular demands that the final close of the piece be in the same “fundamentall” key as outlined in the beginning of the piece. Whereas Morley’s suggested closes in the “great fault” passage suggest a preference for closes on the fifth and fourth above the key, Campion expands these suggestions into a system of closes, in which the fifth is the preferred secondary close, and the third a tertiary close in flat keys; other closes are possible in sharp keys, though Campion echoes Morley in noting that these closes “must be done with judgement.”

The single feature that is unique to Campion is the use of the triadic third as determinant of key; this is no small feature, however, and it is this distinction between flat and sharp keys that becomes a mainstay of seventeenth-century English music theory.

**Looking for key in Byrd**

We may now turn to Byrd’s published motets and look for affinities between his works and the concepts of Morley and Campion. The harmonic, key-defining role of the bass is notably audible in Byrd’s homophonic works, such as *Emendemus in melius* from the 1575 volume, though even in motets employing older compositional techniques—such as a *cantus firmus*—Byrd tends to couple the *cantus firmus* with a series of internal closes that establish a triadic key. Byrd typically

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22. Campion was certainly aware of the difficulties presented by conflicting terms in musical discussion: the preface to his treatise begins by lamenting “There is nothing doth trouble, and disgrace our Traditionall Musition more, then the ambiguity of the termes of Musicke, if he cannot rightly distinguish them, for they make him uncapable of any rationall discourse in the art hee professeth...” Campion et al., *New Way of Making Foure Parts in Counterpoint*, 43.

23. Ibid., 60.

24. Peter Le Huray’s comparison of Byrd’s *Libera me, Domine, de morte aeterna* (1575/5) with Robert Parsons’s earlier setting of the same text reveals Byrd’s attention to harmonic structure and bass-driven harmonies: where Parsons uses mostly G and “minor dominant” D sonorities to harmonize the cantus firmus, Byrd employs closes on related keys such as Bb, C, D, and F. Peter Le Huray, “Some Thoughts About Cantus Firmus Composition; and a Plea for Byrd’s *Christus Resurgens*,” in *Byrd Studies*, ed. Alan Brown and Richard Turbet (Cambridge, UK: Cambridge University Press, 1992).
begins and ends most motets with the same key, though there are a few notable exceptions which I will examine later. All three forms of Morley’s closes may be found in Byrd’s motets: the descending-fifth or ascending-fourth variety is most common (as it is in Morley’s examples), but the stepwise-descending and ascending-fifth/descending-fourth forms also appear occasionally. His preferences for internal closes also appears in line with Campion’s guidelines: most closes occur on either the key note or the fifth above, as Harley notes in his survey. Lastly, we may examine Byrd’s differentiation of so-called flat and sharp keys; an appendix lists all of the motets from the three publications considered here. A cursory look at the motets from the 1575 volume suggests an immediate connection with Campion’s distinction of flat and sharp keys, as we can separate the first two groups of motets by triadic key. Motets of the first group all appear to be in the key of “G with B flat”—or simply “G flat”—despite their differences in prefatory flats, while those in the second group, numbers 10 through 12 (coming after a second trio of Tallis motets), appear to be in the key of “G sharp.”

You will note that I have used a shortcut in assessing Byrd’s use of key: I have assumed that the final of each motet serves as its key as well. In many cases, such a shortcut is harmless, as Byrd is prone to “keeping his key” from beginning to end in the majority of his motets, but an examination of each work’s internal closes is needed to confirm the validity of this assumption. An inspection of these first six motets reveals a fairly consistent use of closes within each group: the flat key motets close most often on G, B♭, C, and D, while the sharp key motets close on G, C, and D—conforming to both Campion’s emphasis on the fifth and minor third and Morley’s recommendation for C and D closes in a work that begins in G. Though Byrd may not have labeled the keys of these motets as “G flat” and “G sharp,” the grouping of these motets does provide reasonable evidence for grouping according to triadic key.

Of course, there are other possibilities that may account for this organization, and I would like to briefly address two of them before looking at a few more of Byrd’s published motets. The first is mode: though I have already admitted the possibility of melodic mode in Byrd’s motets—specifically in motets containing a cantus firmus—one commonly used analytical approach employs a modernized form of polyphonic mode which reduces authentic and plagal varieties to a single mode, such as “Dorian” or “Aeolian.” I believe that Jessie Ann Owens’s 1998 essay, “Concepts of Pitch in English Music Theory,” has thoroughly revealed the problems of applying such a “neo-modal” system to the music of Byrd, and it is in response to Owens’s quest for a “historically grounded critical approach” that I have undertaken my study of key.


26. There are, of course, other likely motivations behind Byrd’s arrangement: for instance, motets that share the imitative style are placed side by side in the 1575 collection. Yet the distinction between flat and sharp keys appears to have relevance outside of vocal music as well: Byrd alternates between “C flat” and “C sharp” keys in the first seven pavan-gaillard pairs in his manuscript of keyboard works, My Lady Nevells booke (1591).

Another approach combines the final with the “flats” column, effectively using the prefatory flats to determine a scale; this is essentially the approach taken by Owens, who replaces inappropriate modal terms with the more emic concepts of key and solmization syllables.\(^{28}\) Though my assignment of G-flat and G-sharp keys does use the prefatory B♭ as a precursory indicator, I propose that prefatory flats affect triadic key only in locating the third of the key, as seen in Campion’s treatise. Indeed, the reason I label these as prefatory flats, rather than key signatures, is that to the sixteenth- and seventeenth-century English composer, prefatory flats were understood simply as a kind of macro-accidental that affected every note on that line or space.\(^{29}\) And though I have already noted the ubiquity of the “Scale of Music” in English treatises, these scales appear in the context of instructing singers, not of composition; the scale plays no part in Morley’s and Campion’s descriptions of key, which are based on the use and relations of closes.

The disqualification of these approaches does not in itself confirm the presence of triadic key in Byrd’s motets. Yet if one concedes that Byrd had some form of tonal organization in mind when ordering the motets of these volumes—a point that not every Byrd scholar concedes\(^{30}\)—then I propose that triadic key captures the musical elements that best represent this organizational practice. Byrd’s attention to the role of the bass, combined with his choice and distribution of internal closes, provides a working prototype by which we may recognize triadic key both within a motet and across a group of key-sharing motets. Nevertheless, there are a few apparent and significant differences between Byrd’s motet practice and Campion’s description in particular, and it is in these instances where I strive to locate Byrd’s individual concept of triadic key. The following two studies examine pairs of motets that do not comfortably fit within the Morley/Campion definition of triadic key: the first pair offers apparent mismatches of initials and finals, while the second pair differs in internal closes.

\(^{28}\) This approach is similar to Harold Powers’s use of “tonal types,” in which a combination of final, flats, and system of clefs was used to represent the eight modes in modally ordered publications; however, the lack of any corresponding modally ordered books in England makes Owens’s approach more speculative, and she acknowledges that this approach is a “preliminary sketch” that awaits further development. Owens, “Concepts of Pitch in English Music Theory, c. 1560–1640,” 184.

\(^{29}\) The practice of including or omitting a prefatory flat was largely “a convenient and common notational practice […] when the note it affected was flat (or natural) often enough to justify the practice.” The flexibility of this practice is reflected in Byrd’s use of differing prefatory flats in multiple manuscript versions of the same piece: his anthem *How long shall mine enemies* appears in several sources that vary between signatures of one and two flats. Harley, *William Byrd’s Modal Practice*, 102, 105.

\(^{30}\) David Wulstan notes that, since some motets exist in multiple versions set in different keys, “the printed key may be a fortuitous choice of two possibilities of written pitch”—though in response I would suggest that it is precisely this possibility that grants Byrd’s choices the potential to reveal his practice of tonal organization. Regarding the ordering of motets, Wulstan notes that he does not find “any fearful symmetry in the key distribution, written or sounding, in any of the *Cantiones* collections.” David Wulstan, “Birdus Tantum Natus Decorare Magistrum,” in *Byrd Studies*, ed. Alan Brown and Richard Turbet (Cambridge, UK: Cambridge University Press, 1992).
Motet study #1: Exceptions of Initial and Final

Of Byrd’s three published volumes of motets, the 1589 volume provides the most apparent example of grouping by final: first is a group of A finals, then a few D finals that appear commixed with a few A finals, and lastly some sharp-key motets in F, G, and C. In this scenario, motets numbers 8 and 10 appear to be outliers: both have A finals but are surrounded by motets with D finals. Byrd may have had reasons other than final or key for placing these motets here; editor Alan Brown suggests that #8, Domine tu jurasti, may have been placed here for printing reasons, to allow the following two motets to be printed on facing pages. A consideration of the initials and internal closes of these motets will permit us to ask if their A finals are also markers of triadic key.

In the case of In resurrectione tua, its A final does not appear consistent with its internal closes: clear imitative entries on D and A and two prominent internal closes on D strongly suggest a triadic key of D, not A. The reason for this atypical ending may be found in the text of the motet, which concludes with an alleluia. Byrd’s liturgical works typically make use of “wandering” closes in the repetitions of the alleluia text, even within a collection nominally arranged by final: the Marian Masses from Gradualia, for instance, all share D finals, yet within these collections are alleluias that conclude with A, G, or F finals. In a Mass setting, we may understand these finals as internal closes within a Mass Proper, but if the work is presented isolated in a collection of motets, it appears that its final is not concordant with its key. We may thus understand this motet as maintaining the triadic key characteristics of D while adhering to Byrd’s typical treatment of a liturgical text.

The other outlying motet in this group, Domine tu jurasti, opens with a series of imitative entries on A and E, shown in Figure 5 below, which suggest an opening key of A. However, the B♭ in the second entry—repeated in the third and fifth entries as well—is atypical of Byrd’s A-final motets, and the opening phrase later comes to a close in D, not A.


32. The second of these closes, occurring in bar 26 of the Stainer and Bell edition, moves the bass through B♭ up to D, making this a “false close” that belatedly arrives on D.

33. Kerman notes that the concluding alleluias of In resurrectione tua are similar in style to those written later in Gradualia. Joseph Kerman, The Masses and Motets of William Byrd (Berkeley: University of California Press, 1981), 92.

34. A similar “wandering” alleluia closes one of Byrd’s early unpublished motets, Similes illis fiant: the piece contains initial and internal closes that support the key of F, yet concludes with an alleluia final on A.

35. Campion is rather unclear about the key-defining potential of these initial entries, though he notes that “to make the key knowne is most necessary in the beginning of a song, and it is best exprest by the often using of his proper fift, and fourth, and thirds, rising or falling.” Though this passage suggests that key be made present early in the piece, its vagueness contrasts with the precision of the “rule of the fift” described earlier. Campion et al., New Way of Making Fowre Parts in Counterpoint, 61.
The combination of initial entries and final close may suggest that this motet is indeed misplaced, an A motet among a group of D motets. Yet an examination of the internal closes complicates this evaluation: in addition to the D closes that end the first phrase, several closes on F near the end of the motet suggest Campion’s tripartite preference for closes on the unison, third, and fifth of the triadic key of D. And as the D-group motets surrounding Domine tu jurasti also contain key-defining closes on D, A, and F, we may suggest that this piece, like In resurrectione tua, may not be so out of place after all: of the five A-group motets that begin the 1589 volume, none contain a close on F, and four of the five contain at least one internal close on E, which is absent from the “D group” motets.

However we choose to categorize Domine tu jurasti, we need not attribute its placement to a convenience of printing: it shares a common system of internal closes with the pieces that surround it. Yet this lack of accord between internal and external markers of key is not to be dismissed: Campion in particular stresses the need for the final close to occur in the fundamental key of the piece. A scan of Byrd’s other motets—both published and unpublished—turns up a few additional instances where a piece’s final does not match its internal closes: in addition to the earlier discussed In resurrectione tua, the unpublished motets Benigne fac Domine and Domine exaudi orationem meam et clamor meus each end on the apparent fifth of each work’s respective triadic key. Nor is this practice restricted to the motet repertory: a few of the three-part songs found in Songs of Sundrie Natures (1589) end on the fifth or even fourth above the triadic key suggested by their internal closes.


37. The key-defining potential of these closes is sufficiently present to the extent that Kerman analyses the “cadences” of Domine tu jurasti as if written in a D mode. Kerman, The Masses and Motets of William Byrd, 144.

38. Only one of the motets in this group omits an F close—the relatively brief In resurrectione tua, with only four total closes, two each on D and A.

39. The exception, Memento Domine, is discussed below in note 48.

40. Both motets may be found in William Byrd, Latin Motets II (From Manuscript Sources), vol. 9, The Byrd Edition (London: Stainer & Bell, 2000).
With these pieces in mind, we may acknowledge that, though the majority of Byrd’s motets do match internal and final closes according to Campion’s guidelines, the final close of a motet may occur on a bass pitch other than the triadic key, and that this appears to be an infrequent but significant difference between Byrd’s practice and the later writings of Campion. Accordingly, if we understand Byrd’s placement of *Domine tu jurasti* to be more than a consequence of printing, we may suggest that Byrd’s concept of triadic key, however he may have called it, was more closely tied to a work’s system of internal closes than to the external markers (initials and finals) typically used as an index of key.

Motet study #2: Differences in Internal Closes

The 1591 volume of motets presents a slightly more complex organizational scheme: motets are divided into two large groups by number of voices, with six-voice motets following those with five voices, and grouping by final appearing within each subset. Within the five-voice group, we find a pair of motets with D finals: since these two motets are situated in between apparent groups of A and G flat motets, we might suppose that he considered them both to have the same key characteristics. Note that these two motets have different prefatory flats, however: *Haec dicit Dominus* carries a flat, whereas *Circumdederunt me* has none.

I have already noted that while prefatory flats affect pitch content, they are not a factor in determining triadic key for either Morley or Campion—aside from defining the third above as “greater” or “lesser,” in the case of motets with a key of G. In this case, however, the differing prefatory flats indicate differences in internal closes as well as in pitch content. *Haec dicit Dominus* features several prominent closes on F, and the last few bars of the motet contain a rather sudden slide from F to A just before the full close on D. *Circumdederunt me*, in contrast, contains two passages that close on G, and it ends with an extended G–D close that is quite unlike the ending passage of *Haec dicit Dominus*.

Despite these differences, both motets make frequent use of closes on D and A, preserving the primary and secondary closes recommended by Campion. More importantly, where the two motets do share closes, they often adopt similar pitch content: closes on A, E, and G in *Haec dicit Dominus* all contain B♭, and the opening phrase of *Circumdederunt me* makes good use of B♯ in closes on D and F. The concept of prefatory flat as macro-accidental is particularly useful in this comparison: instead of marking an essential difference in pitch content, the prefatory flat for *Haec dicit Dominus* simply indicates that, more often than not, a B will appear in its flattened form—without precluding the use of B♭ where appropriate to a given close.

The claim that both motets share the same key further juxtaposes the concept of triadic key against the “final and flats” approach discussed earlier. If we regard this pair of motets as representing the possibilities of the triadic key of D, then it follows that D is a rather flexible key, able to accommodate a wide range of closes that employ both B♯ and B♭. As a readily audible example of this availability, the phrase “O Domine” from *Circumdederunt me* features both B♭ and B♯ in the tenor, and again in the superius when it recurs, as shown in Figure 6 below; such a
A melody from Byrd, a composer not known for melodic chromaticism, may suggest that he intentionally took advantage of this featured flexibility.

![Figure 6. Circumdederunt me, mm. 64–66 and 70–72](image)

However, this notion of a key’s flexibility appears to contrast with Campion’s definition of triadic key. Though Byrd’s preference for closes on the fourth can be seen in the G flat and G sharp motets that begin his 1575 volume, in *Circumdederunt me* Byrd closes on the fourth above the key (G) much more often than on the third above (F), which appears once. In contrast, Campion’s preferred closes for a flat-key work—on the key, its fifth, and its third—are given as invariant regardless of the key chosen. This difference is understandable to the extent that Campion offers prescriptive guidelines for the student composer, though Campion (as Morley before him) recognizes the need for the composer to show “judgement” when choosing closes in sharp keys. And though we may simply attribute Byrd’s choices of internal closes in these motets to the “judgement of the composer,” a more in-depth look at Byrd’s use of keys reveals the influence of the gamut commonly used in sixteenth-century England; each key suggests its own palette of available pitches and closes from which Byrd was likely to choose.

*Boundaries of pitch and key*

Table 1 below, adapted from John Harley’s 2005 study, groups Byrd’s published motets by “key” (defined as final and flats), separating flat and sharp keys where appropriate. This same grouping is also applied to Byrd’s complete vocal, keyboard, and consort works, though multi-part works with liturgical function—Masses, Services, and the contents of Byrd’s *Gradualia*—are excluded to better highlight the works for which Byrd was more or less free to choose individual

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For the purposes of studying triadic key this is obviously a quick and dirty assessment, since Harley’s key is derived exclusively from the external markers of final and prefatory flats. As we have noted above, a motet’s final does not always indicate key, but it will be sufficient for analyzing Byrd’s large-scale tendencies; if we were to recast *In resurrectione tua* and *Domine tu jurasti* as in the key of D, rather than A, then the distribution of frequently used keys would be even more fully balanced.

<table>
<thead>
<tr>
<th>Key (by final)</th>
<th>Published motets</th>
<th>All non-liturgical works</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>B♭</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C flat</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>C sharp</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>D</td>
<td>7</td>
<td>52</td>
</tr>
<tr>
<td>E</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>G flat</td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>G sharp</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51</strong></td>
<td><strong>283</strong></td>
</tr>
</tbody>
</table>

Table 1. *Keys of Byrd’s published motets and non-liturgical works*

Within this table, we see that F, G flat, A, and D are the most commonly used keys in Byrd’s published motets. Byrd also appears to use these four keys commonly in his other works, with C sharp and G sharp appearing often as well. The distribution of Byrd’s key choices is likely influenced by instrumentation: nearly a third of Byrd’s keyboard works are in C sharp, conforming to the typical compass of the early English virginal (C–c”), while the keys of F, A, and G (flat or sharp) are well-suited to the range of the bass voice—typically F up to b—found in

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43. This need not imply that key was not important to Byrd’s liturgical works—only that, unlike his keyboard and motet output, his liturgical works were subject to large-scale conditions of modularity and connectivity. For many works, this means that the same key is used for all works within a given service, such as a Mass Ordinary. Elsewhere, Byrd may have chosen to pair keys with subject material: Kerry McCarthy notes that the second book of *Gradualia* explicitly pairs earthly texts with the “minor mode” and heavenly texts with the “major mode.” McCarthy points to the starkly contrasting C-major material that opens the Ascension introit *Viri Galilaei* as the divide that separates both key and realm. Kerry McCarthy, *Liturgy and Contemplation in Byrd’s Gradualia* (New York: Routledge, 2007), chapter 5.
Byrd’s motets. The overall distribution of keys also suggests some sort of fifths relation, with G, the most frequently used key, in the center, and the less frequent F and A at the edges: the much rarer use of B♭ and E may represent the extremes of this spectrum. These keys may be arranged in a semi-circle, a sort of map of triadic keys, with G at the center, and with the practically defined limits of key representing the extent of Byrd’s charted territory.

![Figure 7. Spectrum of keys](image)

Now, there is little reason to think that Byrd set out with an agenda to use keys related along the circle of fifths. Yet the factors that shape Byrd’s selection of key are in some sense influenced by fifth relations—specifically, the use of hexachords and “naming” in Byrd’s era. Since the syllable *mi* was commonly placed only on three “cliffs” or letters—B, E, and A—then B♭ is the most flatward key that could support one of these *mis*: a hypothetical key of E♭ would have an A♭ *mi* as a raised “fourth degree.” Another possible boundary influence is the practice of keyboard tuning: the most common mean-tone keyboard tuning set the black keys to B♭, E♭, F♯, C♯, and

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44. Particularly with vocal works, the range of a piece is determined by its particular combination of clefs. Certain keys were typically paired with certain clef combinations: vocal pieces in F and G (flat or sharp) are more often set in the “low clefs,” with bass clef and soprano clef (C1) as boundaries, which allows the bass to descend to the fundamental key at a close. And though these choices were likely informed by the practical upper and lower ranges of a given vocal ensemble, recent scholars have suggested that singing pitches were commonly transposed up or down according to the given clef combination; for a summary of this scholarship, see Philip Brett, “Pitch and Transposition in the Paston Manuscripts,” in *Sundry Sorts of Music Books: Essays on the British Library Collections: Presented to O.W. Neighbour on His 70th Birthday*, ed. Chris Banks et al. (London: British Library, 1993).

45. A fourth hexachord, with *mi* on D (placing the *ut* on B♭), appears in John Playford’s first (1654) edition of *An Introduction to the Skill of Musick*; the rhyme associated with learning this hexachord suggests that three prefatory flats, on B, E, and A, would place the *mi* on D. (Herissone, *Music Theory in Seventeenth-Century England*, chapter 3.) Such a hexachord is rarely required in solmizing Byrd’s motets: one passage requiring this D *mi* hexachord is heard in the motet *Vide Domine afflictam*, a piece that Harley suggests may be a response to the flat-laden *Absalom, fili mi* that appears in an illuminated book made for Henry VIII. (Harley, *William Byrd’s Modal Practice*, 34.)
While Byrd occasionally writes a close on E♭, and a melodic A♭ appears rarely in both vocal and keyboard music, B♭ makes a good flatward boundary of keys based on both vocal and keyboard performance practice. The upper limit of the spectrum, E, is the most sharpward key that has a natural fifth above it. Though Byrd occasionally employs a close on E, he never closes on B, and his E closes also avoid a B in the bass, instead using the F–E (stepwise descending) or A–E (ascending fifth our descending fourth) forms. Of course, it is not simply the lack of a natural fifth that prohibits B; otherwise a close on E♭ would be forbidden as well. But there is an apparent difference in how flats and sharps are conceived in contemporary English treatises: a flat has “fa power,” in that it effectively changes the scale being sung, while a sharp lacks a corresponding “mi power.” William Bathe writes at length about this difference between applied flats and sharps, and this distinction appears in the naming exercises that begin the first part of Morley’s treatise, in which a G–F♯–G melodic passage is labeled sol–fa–sol. This lack of “mi power” means that a raised pitch is a local phenomenon, an effect of melodic motion to a higher pitch; a hypothetical close involving a B sonority would require a raised F♯ that did not behave like such a local inflection.

Since triadic key is defined by its closes, this graphic may also be thought of as a map of available closes, with the same gamut-based boundaries on triadic key applying to the available closes within a given key. Though these boundaries are not often tested in the most commonly appearing keys, Byrd occasionally chooses to insert a remote close for expressive purposes, and these choices are informed by the position of the key within the spectrum. A motet in the key of F, for instance, offers few flatward choices, but many more on the sharp side of the spectrum: this possibility can be heard in motets such as Siderum rector, a homophonic motet in F from the 1575 volume that uses a distinctive A–D close to end the phrase “vitia remittens” (“forgive our faults”). In contrast, a motet in the key of D has recourse to a number of flatward closes not available to other keys: the previously discussed Haec dicit Dominus, for instance, uses a sudden move from a D close to an E♭–B♭ passage to set apart the text “Lamentationes,” while Vide Domine afflictionem from the 1589 volume highlights the repeated word “desolata” with C–B♭ (stepwise descending) and A♭–E♭ closes.

46. Davitt Moroney notes that, though this was the standard tuning of keyboards in Byrd’s time, it would have been possible to retune the keyboard to account for alternate accidentals: converting from G♯ to A♭, for instance, would require only two keys to be retuned, and such tuning could be done practically while seated at the keyboard. Davitt Moroney, “Bounds and Compasses: The Range of Byrd’s Keyboards,” in Sundry Sorts of Music Books: Essays on the British Library Collections: Presented to O.W. Neighbour on His 70th Birthday, ed. Chris Banks et al. (London: British Library, 1993).

47. A rare D♭ may also be found in the exceptionally flat-laden Vide Domine afflictionem, mentioned in note 42 above.


We may now address the apparent differences between Campion’s preferred closes and Byrd’s practice. While internal closes are often tasked with reinforcing the key of the work, they may also be used to explore the remote tonal areas available within a given key. And though both Morley and Campion address the key-keeping role of internal closes, both authors recognize the need for “judgement” not only in keeping the key, but in creating a sense of tonal variety within a key.\textsuperscript{50} There is no need for Byrd to mechanically use closes on the third (F) within \\textit{Circumdederunt me}, for instance, as long as the motet’s key is sufficiently made audible by closes on its key and fifth.\textsuperscript{51}

Lastly, just as the gamut limits the available triadic keys, each triadic key within the spectrum will have its own particular palette of available pitches within the gamut. A motet in the key of G or D, for instance, will have the option of either a flattened or natural “sixth degree” above the key, as we have seen in earlier analyses. But in the key of A, there is no such option: Fs will be used in nearly every instance, excepting the occasional inflection at a close on G. Joseph Kerman’s analysis of motets in G and A comes to a similar conclusion, albeit within modal terminology; whether the motet is labeled as Dorian or Aeolian, Kerman finds that it is the final—and its corresponding triadic key—that determines the pitch content:

Whatever [Byrd] called it, the essential point is that in the early and middle years there is a real difference between his motets in A on the one hand, and those in G with signatures of (generally) two flats on the other. Motets in A exhibit none of the flexibility with regard to the sixth degree that characterizes motets in G.\textsuperscript{52}

\textit{Conclusion}

In this essay I have attempted to understand and adopt the English concept of key, derived from the descriptions of Morley and Campion, as a way to describe Byrd’s practice of tonal

\textsuperscript{50} Harley makes a similar observation, albeit with more cumbersome terminology: “While Byrd generally emphasizes the key and overall tonality of a piece with his strongest cadences, cadences of different kinds and cadence-like configurations may emphasize a variety of tonalities within an overall tonality.” Harley, \textit{William Byrd’s Modal Practice}, 59.

\textsuperscript{51} The only key in which this is not possible is E, lacking a viable fifth (B) for closes. Byrd’s two unpublished motets with E finals, \textit{Deus in adjutorium} and \textit{Domine quis habitat}, both end with A–E closes, and might be considered representatives of a kind of “Phrygian” key, in which the fourth, not the fifth, is the preferred secondary close. Such a practice would be similar to contemporary Continental practices that maintained a third, “Phrygian” key—also on E—alongside other nascent “major” and “minor” tonalities.

Though it is tempting to assign a similar “Phrygian” key to \textit{Memento Domine}, an A-final, one-flat motet from the 1589 volume that makes extensive use of A and D closes, such an assignment fails to account for the availability of closes on the fifth (E) in this work. This motet’s rather unusual final close—bass leaping from F to A under a cadence—instead suggests an “unkeyed” status, and Byrd’s placement of \textit{Memento Domine} between groups of A and D motets may be considered a compromise that recognizes common internal closes.

\textsuperscript{52} Kerman, \textit{The Masses and Motets of William Byrd}, 69.
organization both within a motet and across a group of motets. Though Byrd’s practice is largely in accord with the treatise of his professed student Morley, there are two notable areas where Byrd’s practice differs from Campion’s instructions on defining key. Byrd’s choice of internal closes, while largely conforming to Campion’s preferred model, also yields to the boundaries of a practical spectrum of keys, and the final close of a motet occasionally differs from its internally defined key. But in two important areas—the frequent use of internal closes on the key and its fifth, and the distinction between flat and sharp keys—Byrd’s practice aligns quite well with Campion’s treatise, and in this regard we may rightly introduce the concept of triadic key, suggested in Morley’s work and defined in Campion’s, to a repertory that displays many of the tonal hallmarks of later English compositional practices.

In the dedication of his 1589 publication, Byrd states his intentions to clean up and correct errors found in copies of his motets; he found this assortment of motets to be such a mess or “farrago” that he had planned to spread them out across several books.53 Kerman notes that many of Byrd’s changes were decorative—there were very few corrections of pitch or rhythm errors, for instance.54 At this point, we may extend Byrd’s attention to detail to the realm of tonal organization as well: Byrd’s apparent grouping by final may better be understood as arrangement by triadic key, as he highlights the harmonic features—specifically the use of preferred closes—shared within each group of motets. Such an organizational use of key would later be echoed not only in the English keyboard volumes of the seventeenth century,55 but also by fellow composers of vocal music. Thomas Tomkins, the so-called Last Elizabethan composer, makes a similar request for reorganization a few decades later, asking his copyist specifically to recopy and group his works by key: “And whatsoever Fancies or selected Voluntaries of worthe to be placed in their owne native keyes not mingling or mangling them together with others of contrarey keyes: But put them in theyre Right places.”56

Epilogue

Before concluding, I would like to revisit the roles of triadic key and melodic mode in Byrd’s motets. In most cases the two may coexist without much interference; as noted earlier, Byrd typically manages to impart a sense of triadic key even in his cantus firmus motets through the strategic use of internal closes. But one cantus firmus motet in particular—Afflicti pro peccatis,


55. In a manuscript of keyboard pieces completed in 1620, Benjamin Cosyn writes the keys of each piece in the index; both “letter and voice” are used, as in “C fa ut,” but Cosyn also differentiates “Gamut” from “Gamut flatt.” (Harley, William Byrd’s Modal Practice, 24.) The manuscript is British Library MS R. M. 23.1.4.

appearing in the 1591 collection, though it was likely written at least a decade earlier—challenges this symbiosis.

Though a glance at its final and flats suggests that it is a “G sharp” motet, the initial entries of this piece provide contrary evidence: the cantus firmus is in mode 8, and Byrd pairs the Fs in the cantus firmus with B♭s in the answer. Assessing the motet’s internal closes provides no further clarification: the two most common internal closes are on F and G, with occasional closes on A and D. This motet provides a striking example of how melodic mode may inhibit the establishment of triadic key; as Byrd builds his piece around the cantus firmus, he must account for both B♭ and F at different points throughout the piece, and the resulting internal closes—particularly on the “minor seventh,” F—conform to neither sharp nor flat key.

In preparing this piece for publication, it is quite possible that Byrd may have struggled to reconcile melodic mode and triadic key: though two manuscript copies of Afflicti pro peccatis contain one prefatory flat in all parts except the cantus firmus, it appears in the 1591 volume with no prefatory flats—thereby changing our initial assessment of triadic key from flat to sharp. Was Byrd correcting an earlier “mistake” by changing the prefatory flats in preparation for publishing? Was he aware of an emerging standard for prefatory flats, in which a G motet was to have either zero or two flats? Without any description or remarks by Byrd, it’s hard to know just what motivated this change, but it does serve as a convenient warning that Byrd’s concept of triadic key was likely developed over the span of these published volumes—and that what began with the conception of a new, bass-driven compositional practice only later became a means of reconciling the tonal content of a given composition.

57. Byrd, Cantiones Sacrae II (1591).

Appendix: Ordering of motets in the three *Cantiones sacrae* publications.

<table>
<thead>
<tr>
<th>Title</th>
<th>Final</th>
<th>Flats</th>
<th>Key</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cantiones sacrae</em> (1575), Byrd and Thomas Tallis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Emendemus in melius</td>
<td>G</td>
<td>♯♭ (♭)</td>
<td>G flat</td>
<td></td>
</tr>
<tr>
<td>5. Libera me Domine et pone me</td>
<td>G</td>
<td>♯♭ (♯♭)</td>
<td>G flat</td>
<td></td>
</tr>
<tr>
<td>6. Peccantem me quotidie</td>
<td>G</td>
<td>♯♭ (♭)</td>
<td>G flat</td>
<td></td>
</tr>
<tr>
<td>10. Aspice Domine quia facta</td>
<td>G</td>
<td>-</td>
<td>G sharp</td>
<td></td>
</tr>
<tr>
<td>11. Attollite portas</td>
<td>G</td>
<td>-</td>
<td>G sharp</td>
<td></td>
</tr>
<tr>
<td>12. O lux beata Trinitas</td>
<td>G</td>
<td>-</td>
<td>G sharp</td>
<td></td>
</tr>
<tr>
<td>17. Laudate pueri Dominum</td>
<td>F</td>
<td>♯</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>18. Memento homo</td>
<td>F</td>
<td>♯</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>19. Siderunt rector</td>
<td>F</td>
<td>♯</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>23. Da mihi auxilium</td>
<td>A</td>
<td>-</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>24. Domine secundum actum meum</td>
<td>A</td>
<td>-</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>25. Diliges Dominum</td>
<td>F</td>
<td>♯</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>29. Miserere mihi Domine</td>
<td>G</td>
<td>-</td>
<td>G flat</td>
<td></td>
</tr>
<tr>
<td>30. Tribue Domine</td>
<td>B♭</td>
<td>♯♭</td>
<td>B♭</td>
<td></td>
</tr>
<tr>
<td>31. Te deprecor</td>
<td>G</td>
<td>♯♭</td>
<td>part 2 of “Tribue”</td>
<td></td>
</tr>
<tr>
<td>32. Gloria Patri</td>
<td>B♭</td>
<td>♯♭</td>
<td>part 3 of “Tribue”</td>
<td></td>
</tr>
<tr>
<td>33. Libera me Domine de morte aeterna</td>
<td>G</td>
<td>♯♭ (♭)</td>
<td>G flat</td>
<td></td>
</tr>
<tr>
<td><em>Liber primus sacrarum cantionum</em> (1589)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Defecit in dolore</td>
<td>A</td>
<td>-</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>2. Domine praestolamur</td>
<td>A</td>
<td>-</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>3. O Domine adjuva me</td>
<td>A</td>
<td>-</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>4. Tristitia et anxietas</td>
<td>A</td>
<td>-</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>5. Memento Domine</td>
<td>A</td>
<td>♯</td>
<td>?</td>
<td>no closes on E, many on D</td>
</tr>
<tr>
<td>6. Vide Domine afflictionem</td>
<td>D</td>
<td>♯</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>7. Deus venerunt gentes</td>
<td>D</td>
<td>♯</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>8. Domine tu jurasti</td>
<td>A</td>
<td>-</td>
<td>D</td>
<td>A initial and final</td>
</tr>
<tr>
<td>9. Vigilate</td>
<td>D</td>
<td>♯</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>10. In resurrectione tua</td>
<td>A</td>
<td>♯</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>11. Aspice Domine de sede</td>
<td>D/F</td>
<td>♯</td>
<td>D/F</td>
<td>different keys for each part</td>
</tr>
<tr>
<td>12. Ne irascaris</td>
<td>F</td>
<td>♯</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>13. O quam gloriosum</td>
<td>F</td>
<td>♯</td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>
14. Tribulationes civitatum  
   G  ‡  G flat
15. Domine secundum ultitudinem  
   C  -  C
16. Laetentur coeli  
   F  ‡  F

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Liber secundus sacrarum cantionum (1591)

1. Laudibus in sanctis  
   C  -  C
2. Quis est homo  
   F  ‡  F
3. Fac cum servo tuo  
   F  ‡  F
4. Salve Regina  
   A  -  A
5. Tribulatio proxima est  
   A  -  A
6. Domine exaudi  
   A  -  A
7. Apparbit in finem  
   A  -  A
8. Haec dicit Dominus  
   D  ‡  D
9. Circumdederunt me  
   D  -  D
10. Levemus corda  
    G  ‡  G flat
11. Recordare Domine  
    G  ‡  G flat
12. Exsurge Domine  
    G  ‡  G flat
13. Miserere mei Deus  
    G  ‡  G flat
14. Descendit de coelis (begin 6v)  
    D  ‡  D
15. Domine non sum dignus  
    D  ‡  D
16. Infelix ego  
    B♭  ‡  B♭
17. Afflictii pro peccatis  
    G  -  ?  uses both B♭ and B♮
18. Cantate Domino  
    G  ‡  G flat
19. Cunctis diebus  
    G  ‡  G flat
20. Domine salva nos  
    C  -  C
21. Haec dies  
    F  ‡  F
Bibliography


