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A COMPARISON OF SIXTEENTH-CENTURY POLYPHONIC
DEVICES USED BY PIERLUIGI PALESTRINA
AND WILLIAM BYRD

THESIS

Presented to the Graduate Council of the
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by

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This thesis is a study of the usage of sixteenth-century polyphonic devices as employed by the English composer William Byrd and the Italian composer Pierluigi Palestrina. Both men represented a culmination of sixteenth-century contrapuntal composition in their respective school and period, Byrd of the Renaissance Tudor period, and Palestrina of the Roman school and the Renaissance period.

Palestrina's work became a pattern for sacred Roman music during the late Renaissance because of its consistency, its origin in the modes, and its compositional style. As it became a popular standard for Latin liturgical music, Catholic composers of all nationalities began to use it as a guide for their writing. At this time in England, one such young composer named William Byrd began to emulate Palestrina. Up to this time few of the English composers had taken advantage of the progress made by the musicians of the Netherlands school. These two composers lived about the same time, and their vocal works are quite comparable, yet there was never any known contact between them. There seem to be some notable differences, but each of these is as consistent as the similarities.

Both men were prolific writers of motets, which mirrored all of the Roman Catholic Church activities in an ecclesiastical year. Twelve motets by each composer, six from the early works and six from the late works of each, were chosen for contrast and comparison. In his book, Direct Approach to Counterpoint in 16th-Century Style (Appleton-Century-Crofts, 1947), G. F. Soderlund set forth a conclusive and concise set of rules which he felt particularly characterized the music of Palestrina. A select group of rules or practices, some pertaining to the melodic line and others concerned with dissonances, was chosen from Soderlund's book to be used as a basis for comparison and contrast of the motets of Palestrina and Byrd.

Chapter I contains a brief outline of the lives of Palestrina and Byrd. Chapter II contains the main body of the thesis; its contents include one hundred and three examples taken from the twenty-four motets which serve as illustrations of the Soderlund rules and likenesses and differences between Palestrina and Byrd. Three general topics are covered in Chapter II: melodic line, dissonances, and cadences.

A detailed conclusion in the main body of the paper shows that, more often than not, Byrd and Palestrina utilized the same contrapuntal techniques in their motets. However, there are several exceptions to Soderlund's rules and numerous instances when Byrd and Palestrina differ in their usage of sixteenth-century contrapuntal devices.

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CHAPTER I:

THE LIVES OF PALESTRINA AND BYRD

Although no one knows for certain, it is thought that Giovanni Pierluigi da Palestrina, whose name may be translated "John Peter-Lewis of Palestrina," was born either in 1524 or 1525, possibly on December 17th, since that is the feast-day of St. John the Apostle, after whom he was named.¹ Giovanni Pierluigi was born about twenty-five miles from Rome in the small city of Palestrina, which was a part of the Papal States. His parents were fairly well-to-do land owners and were regarded as honest and pious citizens.

Little is known of Palestrina's early childhood, but he may have been influenced by the choirs at the cathedral basilicas in Rome. Perhaps he was able to hear the Papal Choir as well.

It is probable that the young Giovanni began his musical life as a chorister at St. Agapit's. Then, in 1534, he traveled to Rome with the newly-appointed arch-priest of the basilica of Santa Maria Maggiore. There, he became a member of the choir-school. For the following six years Palestrina was given a general education that included Latin, vocal training, music theory, and counterpoint.

¹Henry Coates, Palestrina (London, 1938), p. 29.

In 1540, Palestrina left the basilica and journeyed to his home for a brief time. He later returned to Rome in order to finish his musical training under Firmin Le Bel. His first teacher in Rome had been the French musician Robin Mallapert.

During the autumn of 1544, Palestrina was appointed to a post in the cathedral of St. Agapit. During his seven years in this cathedral, he played the organ, assisted with the choir, taught the junior boys music and voice, and instructed the canons of the chapters in singing. During the years in Palestrina, he married a young woman who brought him a generous dowry and bore two sons, Rodolfo and Angelo. Little else is known concerning this period of Palestrina's life. However, it may be presumed that he wrote several compositions which were not to be published until the latter part of his life.

Cardinal Giovanni del Monte was the bishop of Palestrina at the time the composer was in residence at St. Agapit. In 1551, the bishop was elected Pope Julius III. After a few months as pope, he sent for Palestrina and appointed him chapel master of St. Peter's Julian Choir. Through the efforts of his predecessors Arcadelt, Domenico Ferrabosco, and Francesco Roussel, the choir had established an excellent tradition. In addition to maintaining the reputation of the choir, Palestrina worked at his compositions, and, in three years, he produced a volume of masses, one of which was dedicated to Pope Julius III. The pope was so pleased

with the work that, in 1555, he appointed Palestrina to the Pontifical Choir. Certainly Palestrina did not sing well, but it was a much coveted honor to belong to the exclusive body of musicians.

Palestrina was appointed musical director at St. John Lateran (the cathedral church of Rome) in the latter part of 1555. Although the pay was small and the choir limited in number, he stayed at this post until August of 1560. After leaving St. John Lateran, eight months passed before Palestrina was again employed in the services of the Catholic Church.

In 1561, he was elected master of the choir at Santa Maria Maggiore, where he remained until 1567. In 1564, Palestrina had found a new patron, Cardinal Ippolito d' Este. Cardinal d' Este was a man of great wealth who loved the arts. In fact, he maintained a private musical establishment at his villa at Tivoli. During the summer of 1564, Palestrina took a leave of absence from Santa Maria Maggiore and directed the musical activities at Tivoli. In 1565 he became the music master at a newly-founded Roman seminary. However, he retained the titular directorship at Santa Maria Maggiore until early in 1567.

In 1570, Palestrina was appointed as director of the Julian Choir at St. Peter's. Between 1572 and 1580, tragedy struck his family. Disease killed his two eldest sons, two of his brothers, and finally, his wife.

In 1580, Palestrina decided to enter the priesthood. In February of 1581, however, he renounced his religious calling and married a wealthy widow. This second wife owned a fur business in which Palestrina invested. He made enough money from this venture to have many volumes of his work published.

In the years following his first appointment as a church musician, he had produced several volumes of motets, madrigals, and masses. Printing, however, was expensive and time-consuming because of the tiny metal type used. Also, the salary which he had received during most of his lifetime was not sufficient to support a family and still have all of his works published. However, in his later years, he had more time for writing. Fortunately, because of his propitious marriage, he also had more money for publication.

Early in 1594, Palestrina resigned his post at St. Peter's and prepared to return to his native Palestrina. There, he had planned to assume the post of musical director at St. Agapit's. Before he could leave Rome, however, he was taken ill and died on February 2nd. Soon after the composer's death, his son Iginio published most of his father's remaining manuscripts.²

Unlike Palestrina, the English composer William Byrd held only one main music position all of his life--that of

²Theodore Baker, Baker's Biographical Dictionary of Musicians (New York, 1958), p. 1201.

organist of the Chapel Royal. Little is known of Byrd's early life, including the date of his birth. However, it is believed that he was born in 1543, probably at Lincolnshire. Nothing is known about his life until about 1554, when his name appeared on a register listing him as a senior chorister of St. Paul's Cathedral.³

Thomas Tallis was Byrd's first teacher and lifetime friend. According to Anthony Wood, Byrd was "bred up to musick under Tallis."⁴ In 1575, Byrd and Tallis published a set of "Cantiones sacrae."⁵

Byrd was appointed organist at Lincoln Cathedral on February 27, 1563 at the age of twenty. In 1568, he married Juliana Birley. In February of 1570, he was appointed a gentleman of the Chapel Royal, but retained his position at Lincoln for three more years. At the end of 1572, he went to London to share with Tallis the appointment of organist of the Chapel Royal.⁶

In January, 1575, Queen Elizabeth granted Byrd and Tallis a twenty-one-year monopoly for printing music and selling music paper. However, after about two years, it proved

³Edmund H. Fellowes, "Byrd, William," Grove's Dictionary of Music and Musicians, Vol. I, edited by Eric Blom (London, 1954), p. 1056.

⁴Baker, op. cit., p. 237.

⁵Fellowes, op. cit., p. 1056.

⁶Ibid., p. 1056.

unprofitable. The two men then petitioned the Queen for an annuity in the form of a lease, which she promptly granted.⁷

In 1577, after moving just north of London to Harlington, Byrd and his family were named as recusants: they were charged with refusing to attend their parish church services. In 1592, Byrd's wife, Juliana, died, and Byrd remarried. His second wife, Ellen, was also listed as a recusant. In 1593, Byrd moved to Stondon Massey and lived there until his death on July 4th, 1623.⁸

Legal claims on the various leases held by Byrd caused several troublesome litigations during the middle period of his life, even to the point of holding up publication of his music.⁹

Throughout his life, Byrd adhered to the old traditions of the Catholic Church, and sometimes he was involved in the troubles the Catholics encountered in England.

Being one of the most celebrated English musicians, Byrd had many famous patrons in the English nobility. Even though his sympathies toward the Catholic Church were known, he retained his position in the Chapel Royal throughout his lifetime. In addition to the great amount of music he

⁷Baker, op. cit., p. 237.

⁸Fellowes, op. cit., p. 1056.

⁹Baker, op. cit., p. 237.

composed for the Catholic liturgy, Byrd wrote innumerable works for the rites of the Reformed English Church.¹⁰

Both Palestrina and Byrd lived in times of great change--the Renaissance and the accompanying Reformation. Even though half a continent separated the two composers, their styles and usages were very much alike.

¹⁰Fellowes, op. cit., p. 1057.

CHAPTER II

THE STYLES OF PALESTRINA AND BYRD

Melodic Line

Sixteenth-century polyphonic devices used by the Italian composer Pierluigi Palestrina are quite comparable to those used by the English composer William Byrd in his vocal music. Each man represented a culmination of sixteenth-century contrapuntal composition in his respective school and period, Byrd of the Renaissance Tudor period,¹ and Palestrina of the Roman school and the Renaissance period.² Even during his life, Byrd was called the "Father of English Music";³ and Palestrina was so adept at blending the Flemish polyphony and Italian melodiousness with his own personal style that his work frequently served as a model for other Renaissance composers.⁴

Palestrina's work became a pattern for sacred Roman music during the late Renaissance because of its consistency, its origin in the modes, and its compositional style. As it became a popular standard for Latin liturgical music,

¹ Edmund H. Fellowes, William Byrd (London, 1936), p. 49-52.

² Homer Ulrich and Paul A. Pisk, A History of Music and Musical Style (New York, 1936), p. 146.

³ Fellowes, op. cit., p. 30.

⁴ Ulrich and Pisk, op. cit., p. 147.

Catholic composers of all nationalities began to use it as a guide for their writing. At this time in England, one such young composer named William Byrd began to emulate Palestrina. Up to this time few of the English composers had taken advantage of the progress made by the musicians of the Netherlands school.⁵

History books and research projects usually bring the schools of the Romans, the Netherlands, and the Flemish to the foreground, leaving the English school in the background. As William Byrd takes his place near the apex of English Renaissance music, English biographer Edmund H. Fellowes notes that his Latin liturgical music is his finest achievement.⁶

In musical value, Palestrina's motets, which are almost five hundred in number,⁷ occupy a place next in importance to his masses.⁸ According to H. K. Andrews, apart from the mass, the motet was the most important vocal form of the sixteenth century;⁹ the purpose of motets, which ranged from two to twelve voices, was to represent or mirror all the varied activities of the ecclesiastical year.¹⁰

⁵Ibid., p. 30.

⁶Fellowes, op. cit., p. 52.

⁷Henry Coates, Palestrina (London, 1938), p. 4.

⁸Ibid., p. 135.

⁹H. K. Andrews, An Introduction to the Technique of Palestrina (London, 1958), p. 174.

¹⁰Coates, op. cit., p. 135.

By comparing various motets of each composer, interesting comparisons, contrasts, and deviations can be formulated. The twenty-four motets, twelve by each composer, were chosen at random with duration and time of writing taken into consideration; shorter motets, six from the early works and six from the later works of each composer, were chosen.¹¹

In his book, Direct Approach to Counterpoint in 16th-Century Style (Appleton-Century-Crofts, 1947), G. F. Soderlund set forth a conclusive and concise set of rules which he felt particularly characterized the music of Palestrina. A select group of rules or practices, some pertaining to the melodic line and others concerned with dissonance, has been chosen from Soderlund's book to be used as a basis for comparison and contrast of the motets of Palestrina and Byrd. Leslie Bassett's handbook of rules, Manual of Sixteenth-Century Counterpoint (Appleton-Century-Crofts, 1967), based upon the Soderlund book, will also serve as a reference.

The Soderlund rules are quoted directly from the book; for ease of reading, they are enclosed in boxes, followed at the end of each rule with the page number in parenthesis. The statistical percentages used by this author are meant to be informative rather than decisive.

The original form of music used in the Roman Catholic

¹¹

See Appendix A for a list of the twenty-four motets.

Church was called Gregorian chant, named after Pope Gregory I, who filled the papal office from 590 to 604.¹² During the ninth and tenth centuries a theoretical scheme of eight modes, to which most of the chants were adapted, came into being.¹³ Since an implied or direct melodic skip from the note F up to B caused a tritone or augmented fourth, the B was flattened and the Aeolian and the Ionian modes came into use.¹⁴ The forms of the twelve modes are seen in Ex. 1.

The modes were not used in their pure form, because chromaticism or musica ficta had invaded the field. The consequence was not that of modulation in the modern sense, but rather that of harmonic color without a definite feeling of key.
(p. 117)

Soderlund's notation rules are as follows:

Equal white note values are tied to each other; white note values are tied to notes half their value; adjacent note values are tied; a half note may be tied to a quarter, but a quarter is rarely tied to another quarter; sometimes at

¹²Willi Apel, Harvard Dictionary of Music (Cambridge, 1966), p. 304.

¹³Ibid., p. 307.

¹⁴G. F. Soderlund, Direct Approach to Counterpoint in 16th-Century Style (New York, 1947), pp. 3-4.

a final cadence a whole note is tied to a brevis;
dotted half notes or dotted quarters occur on odd
beats only, with the dotted half note usually on
beat one. (p. 8)

In quoting Soderlund's rules, a change in reading has
been made to accommodate differences in reduction of note

The image displays 14 ecclesiastical modes, arranged in seven pairs on a five-line staff. Each mode is represented by a sequence of notes, some solid and some dashed, indicating specific intervals. The modes are labeled as follows:

- I. Dorian
- II. Hypodorian
- III. Phrygian
- IV. Hypophrygian
- V. Lydian
- VI. Hypolydian
- VII. Mixolydian
- VIII. Hypomixolydian
- IX. Aeolian
- X. Hypoaeolian
- XI. Ionian
- XII. Hypoionian

Ex. 1.--Ecclesiastical modes

values. An example of a Soderlund rule as found on p. 38 reads, "A skip from a stepwise quarter note to a white note is always made in contrary motion." With changes in the wording it would read thus, "A skip from a stepwise note to one of larger value is always made in contrary motion." The emmendations within brackets in subsequent rules are used to account for these differences.

Frequently used melodic intervals are: major and minor seconds, up and down; major and minor thirds, up and down; perfect fourths and fifths up and down. Less frequent intervals are: minor sixths, up; perfect octaves, up and down. Major sixths, up, are rare. Major or minor sixths, down, major or minor sevenths, or diminished and augmented intervals are never found, except between the end of one phrase and the beginning of another.
(p. 9)

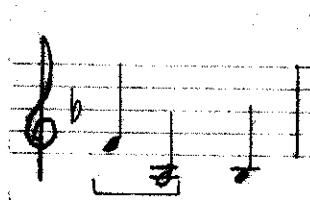
The percentages in Table I were derived from a melodic analysis of the twenty-four selected motets of Byrd and Palestrina; each set of works is divided according to early and late works.

The only melodic intervallic deviation found in Palestrina's motets is a descending sixth, illustrated in Ex. 2. In the Byrd motets, there were two instances of descending sixths and two ascending sevenths, shown in

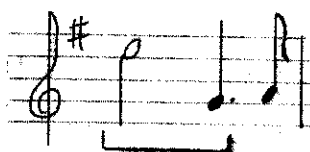
Examples 3, 4, 5, and 6.

TABLE I
PERCENTAGES SHOWING USAGE OF MELODIC INTERVALS

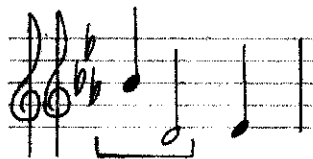
Interval	Early Byrd	Early Palestrina	Late Byrd	Late Palestrina
Prime	18.77	20.40	13.88	16.50
Second	51.89	59.47	55.16	60.45
Third	13.17	8.08	14.13	10.94
Fourth	3.55	5.96	8.35	5.60
Fifth	5.49	4.62	5.57	4.93
Sixth	.77	.35	.81	.38
Seventh	.24	. . .	.20	. . .
Octave	1.12	1.12	1.90	1.20



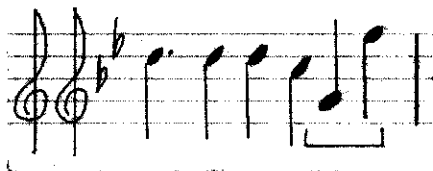
Ex. 2.--O Antoni Eremita (1600), measure 35.



Ex. 3.--Haec Dies (1600), measure 34.



Ex. 4.--Tui Sunt Coeli (1607), measure 28.



Ex. 5.--Emendemus in Melius (1575), measure 13.



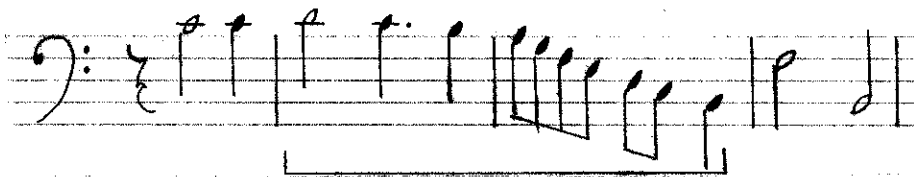
Ex. 6.--Alleluia. Ascendit Deus (1607), measures 27-28.

Scale passages of an eleventh and less are frequent. (p. 11)

The average number of notes used by both composers in a scale line ranged from five to eight notes usually. Ex. 7 and 8 illustrate an extended scale passage as used by Palestrina; Exs. 9 and 10 illustrate the same usage by Byrd.



Ex. 7.--Corona Aurea (1573), measures 28-30.



Ex. 8.--Ave Maria (1575), measures 27-30.



Ex. 9.--Laetenur Coeli (1589), measures 1-2.



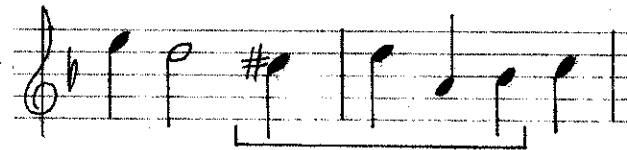
Ex. 10.--In Resurrectione Tua (1589), measures 17-18.

A single skip is approached and left in the opposite direction by step or skip most of the time; it may sometimes be approached or left by motion in the same direction. (p. 12)

Ex. 11 shows a typical use of this rule by Palestrina.
 Ex. 12 and 13 are illustrations of this from Byrd.



Ex. 11.--O Virgo Simul et Mater (1573), measures 15-16.



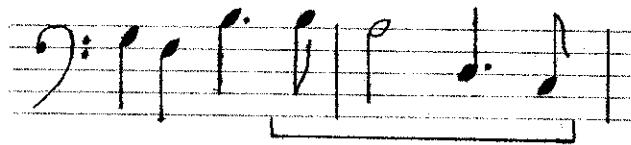
Ex. 12.--Aspice Domine de Sede (1589), measures 13-14.



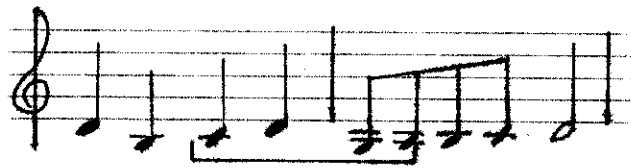
Ex. 13.--Libera Me Domine et Pone Me (1575), measures
 12-13.

Skips of a fifth, preceded and followed by step in the same direction, are extremely rare. Skips of a fifth are infrequently approached and left by skip or step in the same direction.
 (p. 13)

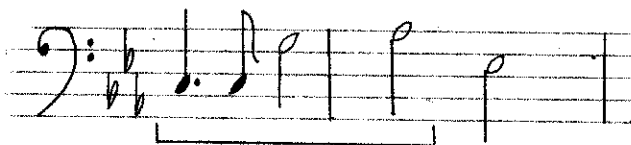
Ex. 14 shows Palestrina approaching and leaving a fifth by step in the same direction. Ex. 15, from Palestrina, illustrates the usual approach and departure to and from the skip of a fifth. In Ex. 16 Byrd leaves the fifth by step in the same direction, which is a less common practice.



Ex. 14.--0 Virgo Simul et Mater (1573), measures 58-59.



Ex. 15.--0 Virgo Simul et Mater (1573), measures 56-57.



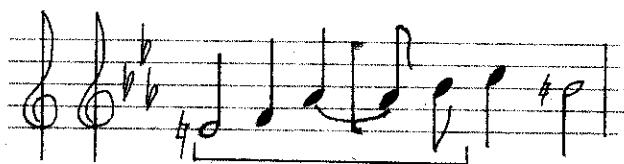
Ex. 16.--Tui Sunt Coeli (1607), measures 16-17.

Skips of a third, approached and left by step in the same direction, are more common. (p. 13)

Ex. 17, by Palestrina, and Ex. 18, by Byrd, are examples of this more common practice.



Ex. 17.--O Virgo Simul et Mater (1573), measures 28-30.

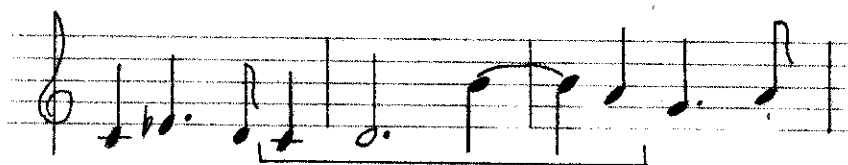


Ex. 18.--Tui Sunt Coeli (1607), measures 7-8.

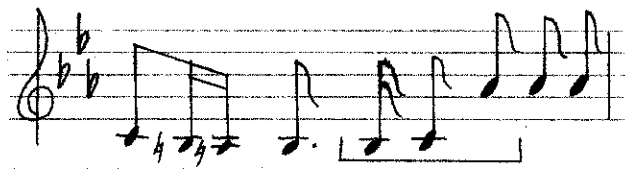
The approach to the minor ascending sixth in the direction of the skip is quite infrequent; it is not left by step in the same direction.

(p. 13)

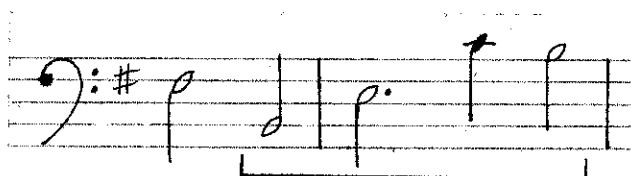
Ex. 19, from Palestrina, is an instance of the sixth being approached in the same direction of the skip. Ex. 20, 21, and 22, from Byrd, show the sixth being approached in the same direction of the skip.



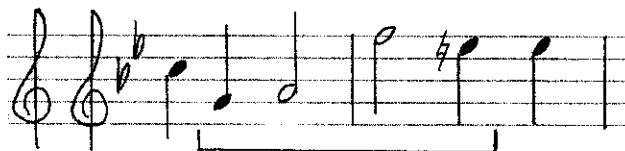
Ex. 19.--O Virgo Simul et Mater (1573), measures 51-53.



Ex. 20.--Dies Sanctificatus (1607), measure 13.



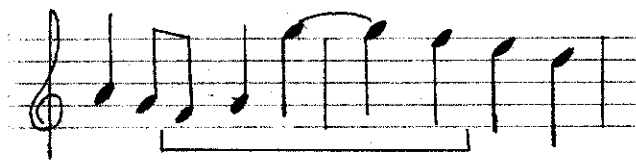
Ex. 21.--Haec Dies (1607), measures 32-33.



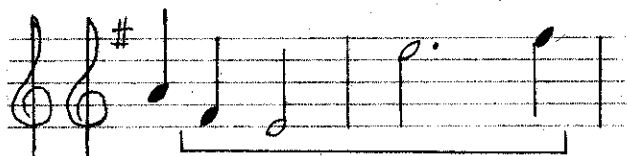
Ex. 22.--Emendemus in Melius (1575), measures 14-15.

The skip of an octave is infrequently approached or left by step in the same direction.
(p. 13)

Palestrina's use of this less common practice is seen in Ex. 23, along with Ex. 24 from Byrd.



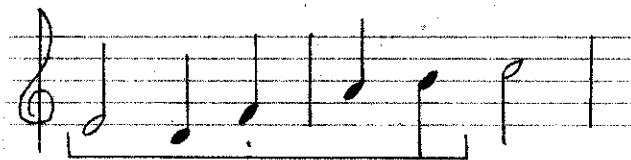
Ex. 23.--O Virgo Simul et Mater (1573), measures 66-67.



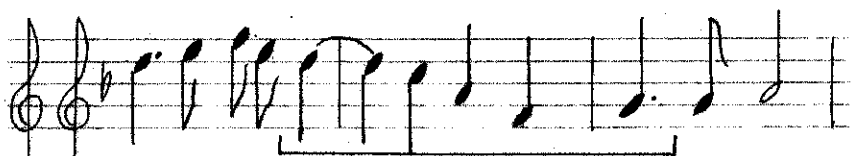
Ex. 24.--Libera Me Domine et Pone Me (1575), measures 4-5.

Skips outlining the three notes of the major and the minor triads, the first and the second inversions, and the octave with the intervening fourth or fifth all occur in the style. All of these are usually approached and left by contrary motion or by repetition of the first or last note of the skips. (pp. 13-14)

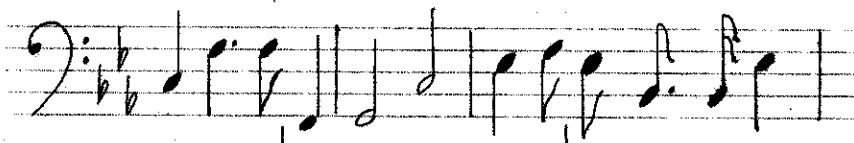
More often in Byrd than in Palestrina, these skips are approached or left by motion in the same direction of the skip. Ex. 25 illustrates Palestrina's infrequent use of approach or departure in the same direction, and Exs. 26 and 27 illustrate Byrd's more frequent use of approach or departure in the same direction.



Ex. 25.--Stella Quam Viderant Magi (1600), measures 74-75.



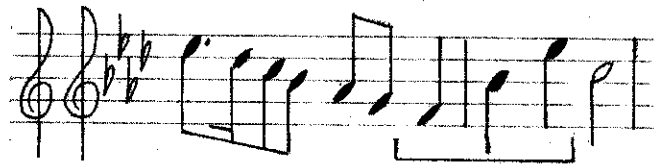
Ex. 26.--In Resurrectione Tua (1589), measures 11-13.



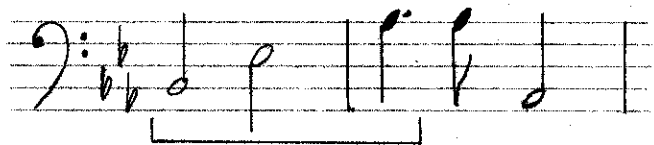
Ex. 27.--Tui Sunt Coeli (1607), measures 9-11.

Two perfect fourths or two perfect fifths in the same direction are permitted in long note values only; such occurrences, however, are quite rare. (p. 14)

An example from the Palestrina motets under study is nonexistent. Two examples were found in the Byrd motets.



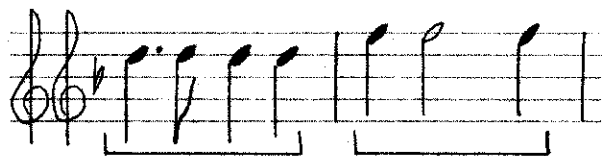
Ex. 28.--Deus Venerunt Gentes (1589), measures 18-19.



Ex. 29.--Alleluia. Ascendit Deus (1607), measures 18-19.

Repeated notes are frequent and may be found
anywhere. (p. 14)

Ex. 30 shows Palestrina's use of repeated notes, and
Ex. 31 is a like illustration from Byrd.



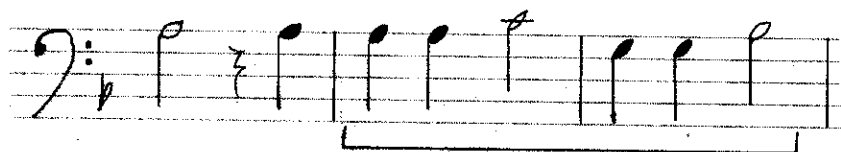
Ex. 30.--Pater Noster (1575), measures 59-60.



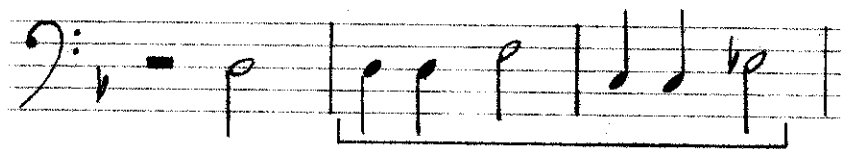
Ex. 31.--Pascha Nostrum (1607), measures 13-14.

Melodic sequences are extremely rare in the style. (p. 35)

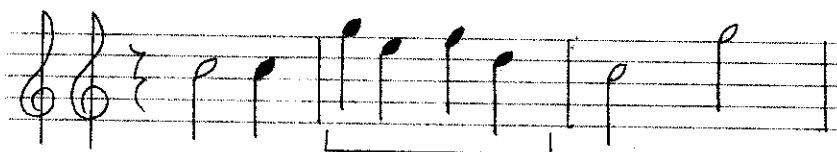
Melodic sequences may not be as infrequent as to be labeled rare; Ex. 32, 33, and 34 show three Palestrina sequences and Ex. 35, 36, and 37 show several Byrd melodic sequences.



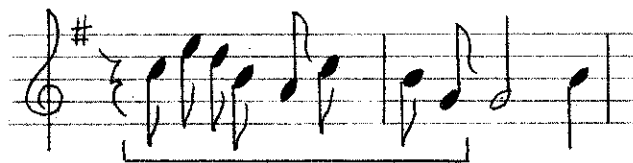
Ex. 32.--Stella Quam Viderant Magi (1600),
measures 36-38.



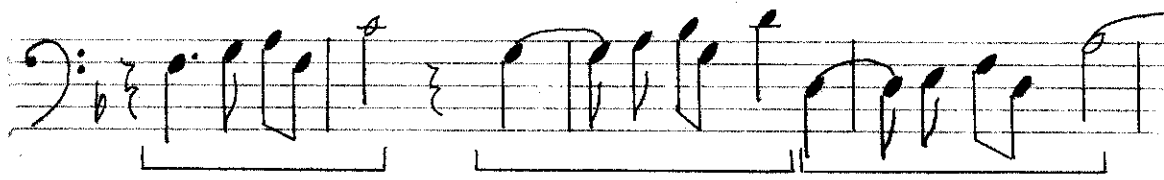
Ex. 33.--Stella Quam Viderant Magi (1600),
measures 44-46.



Ex. 34.--O Admirabile commercium (1600), measures 20-22.



Ex. 35.--Pascha Nostrum (1607), measures 29-30.



Ex. 36.--In Resurrectione Tua (1589), measures 14-17.

Ex. 37.--Alleluia. Ascendit Deus (1607), measures 26-27.

Skips from stepwise quarter [eighth] note passages to white note values are always made in contrary motion. (p. 38)

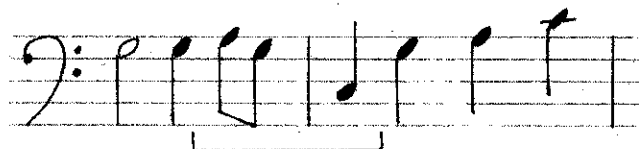
Soderlund uses the word "always" in formulating this rule, as illustrated by Ex. 38, but Ex. 39 shows a Palestrina exception, and Ex. 40 shows an exception from Byrd.



Ex. 38.--O Antoni Eremita (1600), measures 54-55.



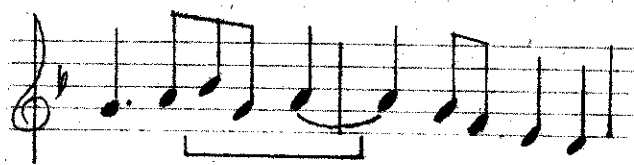
Ex. 39.--Senex Puerum Portabat (1600), measures 43-44.



Ex. 40.--Laetenur Coeli (1589), measures 23-24.

Quarter [eighth] note skips, when followed by white note values, are always descending; a skip is always followed by motion in the opposite direction except when the skip is a third, which can be followed by motion in the same direction of the skip. (p. 39)

This rule is without exception in the Palestrina motets, as shown in Ex. 41, while Ex. 42 shows Byrd's use of the descending third followed by motion in the same direction.



Ex. 41.--Crucem Sanctam Subiit (1600), measures 62-63.



Ex. 42.--Emendemus in Melius (1575), measures 8-9.

Consonances and Dissonances

Counterpoint is the combination, into a single musical fabric, of lines which have distinctive melodic significance. It is a study of the horizontal strands of melody and their various combinations that can be made without any one melody losing its individuality.^{14a}

The vertical intervallic relationship between melodies is based on consonance. These consonances are: perfect unison, perfect fifth, perfect octave, major and minor third, and major and minor sixth. The perfect fourth was a

^{14a}Apel, op. cit., p. 189.

dissonance in the style (except in the special case of the consonant fourth which will be considered later in this chapter). (p. 23)

Other dissonant intervals are major and minor seconds, major and minor sevenths, and in two part counterpoint, diminished and augmented intervals.

Analysis of multi-voice music is made from the lowest note in pitch to each of the notes above. It is said that the upper parts agree with the lowest part in pitch. The upper parts may form a perfect, an augmented, or a diminished fourth or fifth.

Major and minor triads are used in root positions and first inversions; diminished and augmented triads may be used in first inversion only. The major and the minor triads occur with greatest frequency; the diminished triads are less frequent and the augmented triads are quite rare. Usually all triad notes are present, but any note except one which has a sharp and E or B as the leading tone in a cadence can be doubled. (pp. 73-74)

Ex. 43, from Palestrina, and Ex. 44, from Byrd, show consonances measured from the lowest note. Observe that the upper voices form some dissonances between themselves.

The image shows a musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. Each voice part is written on a five-line staff. The Cantus I and II parts are in the soprano clef, Altus is in the alto clef, Quintus is in the tenor clef, and Bassus is in the bass clef. The music consists of a single measure with a key signature of one flat (B-flat). The upper parts (Cantus I, Cantus II, Altus, and Quintus) move in parallel motion, with intervals of thirds, sixths, and fourths. The Bassus part is in the bass clef and has figured bass notation below it: 5 3 1, 5 3 1, 5 3 1, 5 3 1.

Ex. 43.--Corona Aurea (1573), measure 12.

The upper parts move in parallel thirds, sixths, or fourths, or they may move in dissimilar consonances. When the upper parts move in dissimilar note values, dissonant clashes may occur between upper parts as well as between lower and moving parts. (pp.86-87)

These points may be illustrated by Ex. 43 and 44.

The image shows a handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The score is written on five staves, each with a treble clef (except for Bassus which has a bass clef) and a key signature of one flat. The notes are as follows:

- Cantus I:** Quarter note G4, quarter note A4, quarter note B4, quarter note C5.
- Cantus II:** Quarter note G4, quarter note A4, quarter note B4, quarter note C5.
- Altus:** Quarter note G4, quarter rest, quarter note B4, quarter note C5.
- Quintus:** Quarter note G4, quarter rest, quarter note B4, quarter note C5.
- Bassus:** Quarter note G3, quarter note A3, quarter note B3, quarter note C4.

Fingerings for the Bassus part are indicated below the notes: 3, 5, 6, 3, 5, 3.

Ex. 44.--Laetenur Coeli (1589), measure 26.

Parallel octaves and fifths are forbidden. Exposed or hidden octaves occur most frequently at cadences, when the upper note of the octave is approached by step and the lower note by skip in the same direction. (p. 119)

No parallel octaves or fifths were found in these particular motets. Ex. 45, from Palestrina, illustrates hidden

octaves, as does Ex. 46, from Byrd.

The image displays five staves of handwritten musical notation, each representing a different voice part. The parts are labeled as follows:

- Cantus:** Treble clef, showing a melodic line with a slur and an arrow pointing to a note in the third measure.
- Altus:** Treble clef, showing a melodic line with a slur and an arrow pointing to a note in the third measure.
- Quintus I:** Treble clef, showing a rhythmic pattern of eighth notes.
- Quintus II:** Treble clef, showing a rhythmic pattern of eighth notes.
- Bassus:** Bass clef, showing a melodic line with a slur and an arrow pointing to a note in the third measure.

Ex. 45.--0 Admirabile Commercium (1600), measures 70-71.

Cantus

Altus

Quintus I

Quintus II

Bassus

Ex. 46.--Emendemus in Melius (1575), measures 50-51.

Hidden or exposed fifths are permitted between any parts if one of the parts moves stepwise and the other by skip. (p. 77)

Palestrina's and Byrd's illustrations, Ex. 47 and 48, respectively, show the approach to hidden fifths.

Handwritten musical score for measure 67 of 'Admirabile commercium' (1600). The score consists of five staves, each with a clef and a label:

- Cantus:** Treble clef, a whole rest.
- Altus:** Treble clef, a sequence of six eighth notes: G4, A4, B4, C5, B4, A4.
- Quintus I:** Treble clef, a sequence of four quarter notes: G4, A4, B4, C5.
- Quintus II:** Treble clef, a sequence of four quarter notes: G4, A4, B4, C5, with a slur over the last two notes.
- Bassus:** Bass clef, a sequence of four quarter notes: G3, A3, B3, C4, with a slur over the last two notes.

Ex. 47.--O Admirabile commercium (1600), measure 67.

Handwritten musical score for five voices: Cantus, Altus, Quintas I, Quintas II, and Bassus. The score is in G major (one sharp) and 4/4 time. The Cantus part starts on G4, Altus on E4, Quintas I on C5, Quintas II on G4, and Bassus on G3. The melody consists of a series of eighth and quarter notes.

Ex. 48.--Libera Me Domine et Pone Me (1575), measure 8.

Only the lowest voice may, occasionally, exceed the distance of an octave to the next voice above. The upper voices should not be more than an octave apart. (p. 76)

Ex. 49 comes from the Palestrina motets, and Ex. 50 comes from the Byrd motets; both illustrate the above usage.

Handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score shows a two-measure phrase in a single system. Cantus and Altus have a dotted half note in the first measure and a quarter note in the second. Quintus I has a dotted half note in the first measure and a quarter note in the second. Quintus II has a dotted half note in the first measure and a quarter note in the second. Bassus has a dotted half note in the first measure and a quarter note in the second. A double-headed arrow labeled "10th" indicates the interval between the second notes of Quintus II and Bassus.

Ex. 49.--0 Admirabile Commercium (1600), measure 47.

The image shows five staves of musical notation for voices: Cantus, Altus I, Altus II, Quintus, and Bassus. The key signature has three flats (B-flat, E-flat, A-flat). The Cantus staff shows a leading tone (F#) moving to the cadence point (G). The Bassus staff shows a leading tone (C#) moving to the cadence point (D). A double-headed arrow labeled '10th' indicates the interval between the leading tones of the Cantus and Bassus parts.

Ex. 50.--Deus Venerunt Gentes (1589), measure 48.

The leading tone usually goes into the cadence point, but may occasionally skip down a third.
(p. 77)

Ex. 51 shows Palestrina's use and Ex. 52 Byrd's use of the leading tone.

The image displays a handwritten musical score for five voices, arranged vertically. Each voice part is on a five-line staff with a treble clef, except for the Bassus part which uses a bass clef. The notation includes various note values (quarter, eighth, and sixteenth notes), rests, and accidentals. The Cantus part begins with a quarter note followed by three eighth notes. The Altus part features a quarter note, a half note with a sharp sign above it, and a long horizontal line with an arrow indicating a slide or breath mark. The Quintus I part shows a quarter note, a half note with a slur, and a quarter note with a fermata. The Quintus II part starts with a quarter note, followed by eighth notes, and a quarter note with a fermata. The Bassus part consists of a half note followed by a whole note.

Ex. 51.--Stella Quam Viderant Magi (1600), measures 83-84.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quinlus, and Bassus. The score is in G major (one sharp) and 4/4 time. The Cantus part features a melodic line with two circled notes, each labeled 'L.t.' (Lento), indicating a slow tempo. The other parts (Altus, Quinlus, Bassus) provide harmonic support with chords and moving lines. The piece concludes with a double bar line.

Ex. 52.--Dominus in Sina (1607), measures 24-25.

The melodic element, to a great degree step-wise, contributed to the character of harmonic progression; adjacent chords were frequent.

The order of frequency of root movements follows: fourth up (fifth down); fifth up (fourth down); second up; second down; third down; third up.

(pp.77-78)

Analysis of root movements in the twenty-four motets resulted in the percentages found in Table II.

TABLE II
PERCENTAGES SHOWING USAGE OF ROOT MOVEMENT

Interval	Early Byrd	Early Palestrina	Late Byrd	Late Palestrina
Prime	39.76	34.57	33.74	33.87
Second Up	10.93	15.60	14.56	16.17
Fourth Up	9.66	11.59	11.37	11.29
Fifth Up	9.44	9.69	9.48	8.40
Second Down	8.99	9.69	9.13	11.35
Third Down	8.58	7.21	7.00	8.04
Third Up	7.24	5.36	6.12	5.84
Octave	5.40	6.29	8.60	5.04

Even though Soderlund assumed that his table was valid for ecclesiastical music of the period under study, Table II shows that there is one major deviation; the interval of a second up takes a more prominent place than designated in Soderlund's table.^{14b} The octave and prime were included in Table II in order to get a more accurate percentage for all the root movements.

Before launching into a discussion of dissonances, it

^{14b} Soderlund, op. cit., p. 78.

will be valuable to observe a table which shows percentages that represent the usage of various dissonances.

TABLE III^{14c}

PERCENTAGES SHOWING USAGE OF DISSONANCES

Dissonances	Early Byrd	Early Palestrina	Late Byrd	Late Palestrina
UPT	55.32	50.11	57.34	50.90
4-3 Susp.	12.50	18.76	7.77	18.60
LN	10.97	11.41	10.28	10.83
7-6 Susp.	4.98	6.61	3.85	6.52
Half Note PT	2.23	3.44	1.21	1.66
APT	2.13	3.41	2.71	3.30
UN	2.29	.82	2.11	.98
Cambiata	2.31	.54	1.43	.48
Cons. Fourth	1.38	1.23	1.76	.56
9-8 Susp.	.33	1.75	1.79	2.80
2-3 Susp.	.28	.29	. . .	1.04
Appoggiatura	. . .	.97	3.94	. . .
2-1 Susp.	. . .	.66	1.25	1.41
Dissonant Portamento	1.45	. . .	1.21	.92
Escape Tone	.68	. . .	2.10	. . .
Passing $\frac{6}{4}$	1.29	. . .	1.25	. . .
Anticipation	1.88	. . .	. . .	. . .

^{14c} See Appendix B for explanation of abbreviations.

Only black note values occur as auxiliaries in $\frac{4}{2}$ or alla breve time. Auxiliary notes, also called turning notes or neighboring notes, occur on the off beats. They are stepwise, with a stepwise return. They are either consonant or dissonant. The upper auxiliary most frequently returns to a white note value, but it may also return to a quarter [eighth] note. It is most frequently consonant; the style shows a tendency to abstain from the use of dissonant auxiliary notes. (p. 50)

Eighth [sixteenth] notes occur in groups of two on the second half of the beat and consequently may be preceded by either a dotted half [dotted quarter] note or a quarter [eighth] note. They are approached and left by stepwise motion, and the eighth [sixteenth] notes are also stepwise. (p. 44)

The diatonic passing tone, which appears in this style, is approached and left by step in the same direction. It abridges the melodic interval of a major or a minor third, is unessential, or nonharmonic, in character, and is consequently dissonant. (p. 25)

Ex. 53 and 54, from Palestrina, illustrate eighth [sixteenth] notes used as an unaccented passing tone and a lower neighbor.

The musical score consists of five staves, each representing a different voice part. The key signature has one flat (B-flat), and the time signature is common time (C). The notes are as follows:

- Cantus:** Treble clef. Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4 (quarter), G4 (quarter).
- Altus I:** Treble clef. Notes: G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter).
- Altus II:** Treble clef. Notes: G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter).
- Quintus:** Treble clef. Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4 (quarter), G4 (quarter). The final G4 is marked with a slur and the letters "UPF" above it.
- Bassus:** Bass clef. Notes: G3 (quarter), F3 (quarter), E3 (quarter), D3 (quarter).

Ex. 53.--Crucem Sanctam Subiit (1600), measure 50.

Ex. 54.--Ave Maria (1575), measure 8.

Ex. 55 and 56, from Byrd, illustrate the eighth [sixteenth] notes used as consonances and a dissonant upper neighbor. There are a few instances of dissonant upper neighbors found in Palestrina, but they are more numerous in Byrd; most upper neighbors found in these motets are dissonant.

The image shows a handwritten musical score for five voices, arranged vertically. Each voice part is on a single staff with a treble clef, except for the Bassus part which has a bass clef. The key signature is one sharp (F#). The notes are as follows:

- Cantus I:** Treble clef, one sharp. Notes: quarter note G4, quarter note A4, quarter note B4, quarter note C5.
- Cantus II:** Treble clef, one sharp. Notes: quarter note G4, quarter note A4, quarter note B4, quarter note C5, quarter note D5, quarter note E5, quarter note F#5.
- Altus:** Treble clef, one sharp. Notes: quarter note G4, quarter note A4, quarter note B4, quarter note C5, quarter note D5, quarter note E5, quarter note F#5.
- Quintus:** Treble clef, one sharp. Notes: quarter note G4, quarter note A4, quarter note B4, quarter note C5, quarter note D5, quarter note E5, quarter note F#5.
- Bassus:** Bass clef, one sharp. Note: whole note G3.

There are some handwritten annotations: 'Cantus I' and 'Cantus II' are written above the first two staves. 'Altus' is written above the third staff. 'Quintus' is written above the fourth staff. 'Bassus' is written above the fifth staff. There are also some small letters and numbers written below the notes: 'UPT' under the second note of Cantus I, 'LS' and 'LN' under the second and third notes of Altus, and 'LN' under the sixth note of Cantus II.

Ex. 55.--Haec Dies (1607), measure 13.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is written on five staves. The Cantus staff starts with a dotted half note, followed by a quarter note, a quarter note, and a quarter note. The Altus staff starts with a dotted half note, followed by a quarter note and a quarter note. The Quintus I staff starts with a dotted half note, followed by a quarter note, a circled quarter note with 'UN' written above it, and a quarter note. The Quintus II staff starts with a dotted half note, followed by a quarter note, a quarter note, and a quarter note. The Bassus staff starts with a dotted half note, followed by a quarter note and a quarter note.

Ex. 56.--Aspice Domine de Sede (1589), measure 10.

The quarter [eighth] note passing tone is nonessential; when the dissonance occurs on the beat the passing tone is said to be accented and when off the beat, unaccented. The accented passing tone occurs on the second or the fourth beats in a downward direction only. The two quarter [eighth] notes, the first of which is dissonant on the second or the fourth beats, are preceded by either a dotted whole [half] note,

a whole [half] note, or a half [quarter] note.
 (pp. 46-47)

Ex. 57, from Palestrina, will show a typical example of an accented passing tone. Ex. 58 shows how Byrd deviated and used the accented passing tone on the first beat.

The image displays five staves of handwritten musical notation for Ex. 57. Each staff begins with a treble clef (except for the Bassus staff which has a bass clef) and a key signature of one flat (B-flat). The staves are labeled as follows:

- Cantus I:** A single whole note on the second line (G4).
- Cantus II:** A single whole note on the second space (A4).
- Altus:** A single whole note on the second line (G4).
- Quintus:** A sequence of four notes: a quarter note on the second space (A4), a quarter note on the second line (G4), a quarter note on the second space (A4), and a circled quarter note on the second line (G4) labeled "APT" above it.
- Bassus:** A single whole note on the second space (A4).

Ex. 57.--Pater Noster (1575), measure 5.

Cantus

Altus

Quintus I

Quintus II

Bassus

APT

Ex. 58.--Libera Me Domine et Pone Me (1575),
measures 34-35.

Unaccented quarter [eighth] note passing tones occur on the second half of any beat either ascending or descending. (p. 49)

Ex. 59 shows a typical illustration from Palestrina, and Ex. 60 shows one of Byrd's usages.

Handwritten musical score for measure 7 of "Virgo Simul et Mater" (1573). The score consists of five staves:

- Cantus:** Treble clef, one flat, whole note.
- Altus I:** Treble clef, one flat, whole note.
- Altus II:** Treble clef, one flat, sequence of notes: whole note, quarter note, quarter note, quarter note. A "LPT" marking is above the final note.
- Quintus:** Treble clef, one flat, sequence of notes: quarter note, quarter note, quarter note, quarter note.
- Bassus:** Bass clef, one flat, sequence of notes: quarter note, quarter note, quarter note, quarter note.

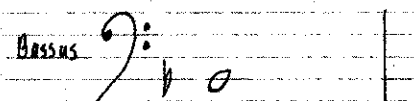
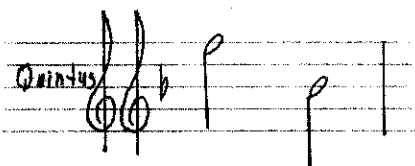
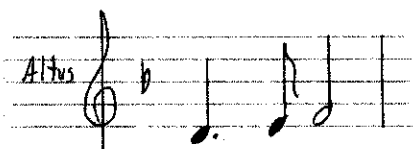
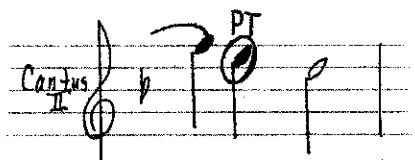
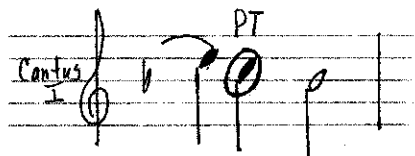
Ex. 59.--0 Virgo Simul et Mater (1573), measure 7.

Ex. 60.--Pascha Nostrum (1607), measure 5.

The half quarter note passing tone is restricted to the second or fourth beats, and is considered unaccented. It may ascend or descend, always against double or more of its value.

(p. 25)

Ex. 61 illustrates Palestrina's use of double half quarter note passing tones. Ex. 62 is a typical illustration from Byrd.



Ex. 61.--Domine Prævinisti Eum (1573), measure 49.

The image shows a handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The music is in G major (one sharp) and is a single measure. Cantus I (Soprano) has a melodic line: G4, A4, B4, C5. Cantus II (Alto) has a melodic line: G4, A4, B4 (suspended), G4. Altus (Tenor) has a melodic line: G4, A4, B4, C5, B4, A4, G4. Quintus (Tenor) has a melodic line: G4, A4, B4, C5. Bassus (Bass) has a melodic line: G2, A2, B2, C3. The suspension in Cantus II is marked with a circle around the B4 note.

Ex. 62.--Haec Dies (1607), measure 24.

The principal dissonance in sixteenth-century composition is the suspension. It is produced by arresting the stepwise downward movement of one or more of the parts in a progression while the other part or parts move to their place in the chord. The 7-6 and the 4-3 are suspensions above, the resolution occurring above the low voice, and the 2-3 suspension below, the resolution occurring in

the lowest voice. The suspension formula recognizes three phases: the first is the preparation, a consonance, which comes on beats two or four; secondly, is the suspension, a dissonance, which comes on beats one or three; finally comes the resolution, a consonance, on beats two or four. The formula usually occupies three time units. The resolution always occurs on the beat immediately following the suspension beat. Both the preparation and the resolution beats may be two units of time if necessary, but the suspension is always limited to one beat. The resolution is always stepwise downward. (pp. 27-28)

The most popular suspension used by both Palestrina and Byrd is the 4-3. Ex. 63 shows Palestrina's use of this particular suspension.

Cantus I

Cantus II

Altus

Quintus

Bassus

Ex. 63.--0 Vera Summa Sempiterna Trinitas (1600),
measure 72.

Occasionally the bass moves down a third to the resolution chord. (p. 83)

Ex. 64 illustrates the bass moving down a third as used by Palestrina. An instance of this was not found in the Byrd motets. Ex. 65 shows how Byrd deviated somewhat and had the suspension and the resolution both on beat four.

The preparation is a dissonant portamento which ascends;
 (the latter dissonance will be studied later in this chapter).

Handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Basses. The score shows a dissonant portamento in measure 38. The Cantus part has a half note G4, followed by quarter notes A4, B4, and C5. The Altus part has a half note G4, followed by quarter notes A4 and B4, with a "4-3" marking below the second measure. The Quintus I part has a half note G4, followed by quarter notes A4, B4, and C5. The Quintus II part has a half note G4, followed by quarter notes A4 and B4. The Basses part has a half note G3, followed by quarter notes A3 and B3. An arrow labeled "3rd" points from the B4 note in the Quintus II part to the B3 note in the Basses part.

Ex. 64.--Senex Puerum Portabat (1600), measure 38.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The key signature is one sharp (F#). The Cantus part has a melody of quarter notes. The Altus part has a similar melody. The Quintus I part features a 7-6 suspension, marked 'Dissonant Portamento' and '4-3'. The Quintus II part has a melody of quarter notes. The Bassus part has a melody of quarter notes.

Ex. 65.--Libera Me Domine et Pone Me (1575), measure 42.

The next most popular suspension with Palestrina and Byrd is the 7-6.

The resolution chord is always a first inversion of a triad. (p. 80)

Irregular treatment of the 7-6 suspension is concerned with a change of bass which changes the position of the resolution chord.

The bass moves up a second to the resolution beat; the bass moves up a fourth or down a fifth to the resolution beat; or the bass moves down a third to the resolution beat. (pp. 80-81)

Ex. 66, 67, and 68, from Palestrina, show respectively a normal 7-6 suspension with no change of bass, the bass moving down a third to the resolution chord, and, in Ex. 68, the bass moving up a second to the resolution chord.

The image displays five staves of handwritten musical notation, labeled from top to bottom as Cantus I, Cantus II, Altus, Quintus, and Bassus. The notation is in a single system, likely representing a measure from a larger piece. The key signature has one flat (B-flat). The Quintus voice shows a 7-6 suspension, with the note G4 (7) resolving to F4 (6). The Bassus voice shows the bass line moving up a second from G2 to A2. The other voices (Cantus I, Cantus II, and Altus) show various melodic lines, with Cantus I having a whole note G4 and Cantus II having two whole notes, G4 and F4.

Ex. 66.--0 Vera Summa Sempiterna Trinitas (1600),
measure 18.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is for measure 22 of 'Stella Quam Viderant Magi' (1600). The music is written in a single system with five staves. The key signature has one flat (B-flat), and the time signature is not explicitly shown but appears to be common time. The Cantus part has a melodic line with a fermata on the second measure and a '7-6' interval marking. The Altus part has a whole note. The Quintus I part has a melodic line with a fermata on the second measure. The Quintus II part has a whole note. The Bassus part has a melodic line with a fermata on the second measure and a '3rd' interval marking.

Ex. 67.--Stella Quam Viderant Magi (1600), measure 22.

The image shows a handwritten musical score for five voices: Cantus, Altus I, Altus II, Quintus, and Bassus. The score is written on five staves, each with a treble clef (except for Bassus which has a bass clef) and a key signature of one flat (B-flat). The Cantus part has a 7-6 interval. The Altus I part has a dotted quarter note followed by two eighth notes. The Altus II part has a whole rest. The Quintus part has a dotted quarter note followed by two eighth notes, with a 2nd interval indicated. The Bassus part has a whole rest.

Ex. 68.--Crucem Sanctam Subiit (1600), measure 29.

Ex. 69, from Byrd, illustrates the bass moving up a fourth to the resolution beat, and Ex. 70 shows a deviation by Byrd when he puts a suspension and the resolution on beat three.

Handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is in G major (one sharp) and shows a single measure of music. The Cantus part has a melodic line with a slur. The Altus part has a descending line. Quintus I has a whole rest. Quintus II has a line with a sharp sign and a '7-6' interval marking. Bassus has a line with a sharp sign and an '4th' interval marking.

Ex. 69.--Libera Me Domine et Pone Me (1575), measure 22.

Handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The score is in G major (one sharp) and shows a 9-8 suspension in the Altus part. The suspension is marked with a '7-6' below the note. The notes for each voice are: Cantus I: G4, A4, B4, C5; Cantus II: G4, A4, B4; Altus: G4, A4, B4, C5, B4, A4, G4; Quintus: G4, A4, B4, C5; Bassus: G3, F3, E3, D3.

Ex. 70.--Haec Dies (1607), measure 17.

The 9-8 suspension is relatively infrequent.

(p. 84)

In Table III it may be seen that this suspension figure occurs very seldom. Ex. 71, from Palestrina, shows the bass moving down a third to the resolution chord. Ex. 72, taken from the Byrd motets, typically illustrates the 9-8 suspension.

The image shows a handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The score is for measure 55 of 'Pater Noster' (1575). The notation is as follows:

- Cantus I:** Treble clef, one sharp (F#). Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes).
- Cantus II:** Treble clef, one sharp (F#). Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes).
- Altus:** Treble clef, one sharp (F#). Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes).
- Quintus:** Treble clef, one sharp (F#). Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes).
- Bassus:** Bass clef, one sharp (F#). Notes: G3 (quarter), A3 (quarter), B3 (quarter), A3-G3 (beamed eighth notes).

Ex. 71.--Pater Noster (1575), measure 55.

The image shows a handwritten musical score for five voices: Cantus, Altus I, Altus II, Quintus, and Bassus. The score is for measures 6-7 of 'In Resurrectione Tua' (1589). The Cantus part has a whole rest in measure 6. The Altus I part has a 2-1 suspension in measure 7, with a 9-8 telescoped suspension indicated below the notes. The other parts (Altus II, Quintus, Bassus) show various rhythmic patterns and rests.

Ex. 72.--In Resurrectione Tua (1589), measures 6-7.

The 2-1 suspension (the 9-8 telescoped, as it were), occurs with sufficient frequency to merit attention. (p. 84)

Ex. 73 shows a typical illustration from Palestrina, while Ex. 74 represents the only 2-1 suspension found in these twelve Byrd motets.

Handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The score shows the first measure of a piece in G minor, measure 20. Cantus I has a melodic line with a fermata on the second note and a fingering '2-1' below. Cantus II has a similar melodic line. Altus, Quintus, and Bassus have whole rests.

Ex. 73.--Ave Maria (1575), measure 20.

Handwritten musical score for four voices: Altus I, Altus II, Quintus, and Bassus. The score shows a 2-3 suspension in the second alto voice. The key signature has two flats, and the time signature is common time. The suspension is marked '2-3' above the note in the second alto part.

Ex. 74.--Tui Sunt Coeli (1607), measure 21.

The 2-3 suspension may be considered as an inversion of the 7-6 suspension. The suspension melody is now in the lower voice. (p. 81)

In Ex. 75, Palestrina has used a 2-3 suspension, with the lowest voice carried by the second alto. Ex. 76 shows Byrd's use of a 2-3 suspension which occurs and is resolved all within the second beat.

The image shows a handwritten musical score for five voices: Cantus, Altus I, Altus II, Quintus, and Bassus. The score is for measure 85 of 'Virgo Simul et Mater' (1573). The music is written on five staves, each with a treble clef (except for the Bassus staff which has a bass clef) and a key signature of one flat (B-flat). The Cantus staff has a whole note G4. The Altus I staff has a whole note F4. The Altus II staff has a whole note E4. The Quintus staff has a whole note D4. The Bassus staff has a whole note C3. The Altus II staff has a '2-3' marking below the note, indicating a fingering or articulation. The Quintus staff has a '■' marking below the note, indicating a fermata or a specific articulation.

Ex. 75.--0 Virgo Simul et Mater (1573), measure 85.

The image shows a handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The score is for measure 18 of the piece 'Laetenur Coeli' (1589). The Cantus I and II staves show notes with stems pointing up, indicating a double suspension. The Altus, Quintus, and Bassus staves show whole rests. A '2-3' label is placed above the Cantus II staff, indicating the relative frequency of the suspension.

Ex. 76.--Laetenur Coeli (1589), measure 18.

The following double suspensions occur with relative frequency: $\frac{7-6}{4-3}$ and $\frac{9-8}{4-3}$; $\frac{7-8}{2-3}$ is extremely rare. (p. 85)

In his handbook of counterpoint rules, Leslie Bassett states that the double suspensions $\frac{7-6}{4-3}$ and $\frac{9-8}{4-3}$ are more frequent. He also states that the double suspension $\frac{9-8}{7-6}$ is theoretically acceptable, even though it was not used by

Palestrina.¹⁵ Soderlund says nothing concerning the double suspension $\frac{9-8}{7-6}$.

Ex. 77 shows Palestrina's use of the $\frac{9-8}{7-6}$ double suspension. Ex. 78 and 79 illustrate Byrd's use of the double suspensions $\frac{4-3}{7-6}$ and $\frac{9-8}{7-6}$, respectively.

The image shows a musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The key signature has one flat (B-flat). The score illustrates a double suspension in the Cantus I part. The first staff (Cantus I) shows a note on the G line of the staff, which is then suspended to the A line. This suspension is annotated with '9-8'. The second staff (Cantus II) shows a note on the F line, which is then suspended to the G line. This suspension is annotated with '7-6'. The other staves (Altus, Quintus, and Bassus) show the corresponding parts for the other voices, with the Bassus part being mostly silent.

Ex. 77.--Domine Prævinisti Eum (1573), measure 32.

¹⁵ Leslie Bassett, Manual of Sixteenth Century Counterpoint (New York, 1967), p. 40.

Handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is in G major (one sharp) and shows a 4-3 and 7-6 intervallic progression in the Cantus and Altus parts.

Cantus: Treble clef, G major. Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes). Intervallic progression: 4-3.

Altus: Treble clef, G major. Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes). Intervallic progression: 7-6.

Quintus I: Treble clef, G major. Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes).

Quintus II: Treble clef, G major. Notes: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes).

Bassus: Bass clef, G major. Notes: G3 (quarter), A3 (quarter), B3 (quarter), A3-G3 (beamed eighth notes). Intervallic progression: 4-3.

Ex. 78.--Libera Me Domine et Pone Me (1575), measure 8.

The image shows a handwritten musical score for four staves. The top staff is labeled 'Altus' and shows a melodic line with a suspension marked '9-8'. The second staff is also labeled 'Altus' and continues the melodic line. The third staff is labeled 'Quintus' and shows a melodic line with a suspension marked '4-3'. The bottom staff is labeled 'Bassus' and shows a bass line with a sustained note.

Ex. 79.--Tui Sunt Coeli (1607), measures 23-24.

Under certain conditions the perfect fourth may be used as a consonance in the chord of preparation of a suspension. It is then approached stepwise from above or from below over a sustained lower part. The fourth, occurring on the fourth or on the second beat as a consonance, is given dissonant status by the adding of a fifth on the suspension beat; the fourth is then resolved as a 4-3 suspension. The device always occupies four half [quarter] note beats, and is used in interior and deceptive as well as final cadences. Occasionally the fourth is doubled; the doubled

fourth may be a lower auxiliary (in no other case allowed, except in fast triple time). (p. 93)

In Ex. 80, Palestrina has doubled the consonant fourth; in Ex. 81, he has used this figure with a 2-3 suspension. Ex. 82 shows a typical use of the consonant fourth by Byrd.

The image shows five staves of handwritten musical notation for a five-part setting. The parts are labeled as follows:

- Cantus I:** Treble clef, one note (G4).
- Cantus II:** Treble clef, notes G4, A4, B4, C5. A circled note (C5) has "LN" written below it.
- Altus:** Treble clef, notes G4, A4, B4, C5. A circled note (C5) has "4 4-3" written below it.
- Quintus:** Treble clef, one note (G4).
- Bassus:** Bass clef, one note (G3).

Ex. 80.--Corona Aurea (1573), measure 58.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is written on five staves. The Cantus staff has a whole rest. The Altus staff has a quarter note, a quarter note, a quarter note, and a whole note. The Quintus I staff has a quarter note, a quarter note, a quarter note, a quarter note, and a whole note. The Quintus II staff has a quarter note, a quarter note, a quarter note, a quarter note, a half note, and a whole note. The Bassus staff has a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. There are some annotations in the Bassus staff, including a circled '7' and a 'Cons. 4th' annotation with a bracket over the last three notes, and a '2-3' annotation with a bracket over the last two notes.

Ex. 81.--0 Antoni Eremita (1600), measure 70.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The Cantus part has a suspension. The Quintus II part has a 'Coma 4th' marking and a '4-3' interval. The Bassus part has a whole note.

Ex. 82.--Emendemus in Melius (1575), measure 33.

Soderlund uses portamento as an anticipation device that precedes a suspension. Willi Apel gives the following definition of portamento.

A special manner of singing, **with the voice** gliding gradually from one tone to the next through all the intermediate pitches. A similar effect, frequently but erroneously called glissando, is possible on the violin and on the trombone. In vocal compositions the portamento is indicated by a slur connecting two notes of different pitch.¹⁶

¹⁶Apel, op. cit., p. 595.

The resolution of the suspension is frequently ornamented by a device called portamento. The resolution is anticipated on the off beat and then repeated on the proper beat, two or four.

(p. 51)

Ex. 83 shows how Palestrina used the portamento device with suspensions. Ex. 84 shows how Byrd elaborated on the portamento and made it more ornamental by adding a lower neighbor.

The musical score for Ex. 83 consists of five staves, each representing a different voice part. The staves are labeled as follows:

- Cantus I:** Shows a suspension on the first beat, followed by a portamento (indicated by a slur) leading to the resolution on the second beat. A circled 'b' is above the resolution note.
- Cantus II:** Shows a suspension on the first beat, followed by a portamento leading to the resolution on the second beat.
- Altus:** Shows a sequence of notes with portamento markings '4-3' and '4-3' below the notes, indicating a descending scale.
- Quintus:** Shows a sequence of notes with portamento markings.
- Bassus:** Shows a sequence of notes with portamento markings.

Ex. 83.--Pater Noster (1575), measures 20-21.

The image shows five staves of handwritten musical notation. The top staff is labeled 'Cantus I', the second 'Cantus II', the third 'Altus', the fourth 'Quintus', and the bottom 'Bassus'. All staves are in G major (one sharp). The Quintus staff features a circled figure with '1 - 6' written below it, indicating a portamento from the first to the sixth degree of the scale.

Ex. 84.--Pascha Nostrum (1607), measure 25.

The portamento is frequently used as a purely melodic idiom (without suspension). The figure may be preceded by white as well as black note values and is always located on beat one or three. The anticipation may be in an upward direction.

(p. 53)

In Table III, the term "Anticipation" is used instead of "Consonant Portamento". Ex. 85 illustrates the consonant

portamento as used by Palestrina, and Ex. 86 shows how Byrd used the same figure.

Cantus

Altus

Quintus I

Quintus II

Bassus

Ex. 85.--O Admirabile commercium (1600), measures 43-44.

The image shows five staves of handwritten musical notation. The staves are labeled from top to bottom: Cantus I, Cantus II, Altus, Quintus, and Bassus. Each staff contains a single measure of music. Cantus I and Cantus II have simple note values. Altus features a more complex rhythmic pattern with many beamed notes. Quintus and Bassus have simple note values, with Bassus starting with a fermata.

Ex. 86.--Haec Dies (1607), measure 24.

The dissonant anticipation in the portamento device is used in a descending form only. It is the reverse of the portamento used as a suspension ornament: the initial note is consonant, the anticipation is dissonant, and the third note of the figure must be consonant. Anticipation in an upward direction is rare. (p. 53)

Ex. 87 is the only illustration of a dissonant portamento

found in the twelve Palestrina motets. Ex. 88 is one of many found in the Byrd motets.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is written on five staves, each with a treble clef (except for Bassus which has a bass clef). The music is in a common time signature. The Cantus part begins with a half note followed by a dotted half note, then a quarter note, and a half note. The Altus part begins with a quarter note, followed by a dotted quarter note, and a half note. The Quintus I part has a whole rest in both measures. The Quintus II part begins with a quarter note, followed by a dotted quarter note, and a half note. The Bassus part has a whole rest in both measures. The score is labeled 'Ex. 87' and 'Admirabile commercium (1600), measures 43-44'.

Ex. 87.--O Admirabile commercium (1600), measures 43-44.

The image shows four staves of handwritten musical notation. The top staff is labeled 'Cantus' and contains a single note on the second line of the staff. The second staff is labeled 'Altus' and contains a sequence of four notes: G4, E4, F4, G4. The third staff is labeled 'Quintus' and contains a sequence of four notes: G4, E4, F4, G4. The bottom staff is labeled 'Bassus' and contains a single note on the second space of the staff.

Ex. 88.--Dies Sanctificatus (1607), measure 32.

The Nota Cambiata, which consists of four notes, may be explained as an intended passing note figure with a change of direction; the second note skips downward a third, followed by an ascending step to the final note, the intended goal of the quarter note passing tone. It may be placed on any beat; it is found in all voice parts. (p. 36)

The first and the third notes of the figure must have consonant harmony. The second note may be treated as a dissonant escape note or as a

consonance, while the last note may be a consonance or a passing dissonance. (p. 54)

These are among the forms the Cambiata may take:

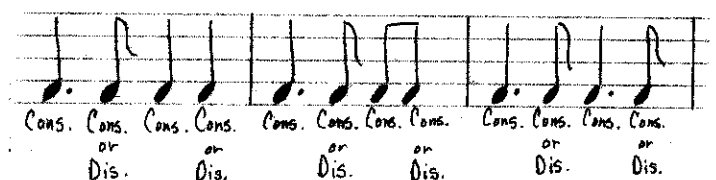


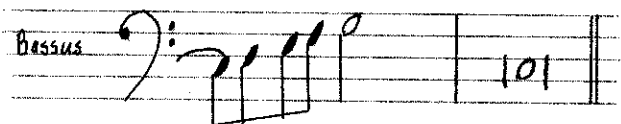
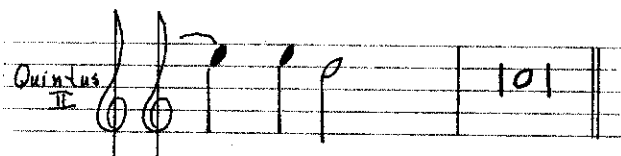
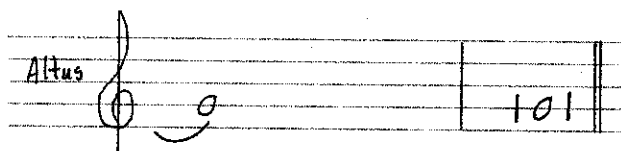
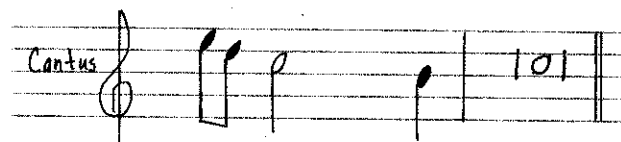
Fig. A.--Forms of the Nota Cambiata

Ex. 89 and 90, from Palestrina, illustrate two forms of the Cambiata. Ex. 91 shows one way in which Byrd used this figure. Ex. 92 illustrates an all consonant Cambiata used by Palestrina.

The image shows a handwritten musical score for five voices, arranged vertically. Each voice part is on a five-line staff with a treble clef (except for the Bassus part, which has a bass clef). The key signature is one flat (B-flat), and the time signature is common time (C). The score is for measure 80 of the Pater Noster (1575).

- Cantus I:** Treble clef, one flat. The melody starts with a quarter note on G4, followed by a dotted quarter note on A4, and then a quarter note on B4. The final part of the measure consists of a beamed eighth-note triplet: G4, A4, B4.
- Cantus II:** Treble clef, one flat. The melody consists of a single half note on G4.
- Altus:** Treble clef, one flat. The melody consists of a quarter note on G4, a quarter note on A4, and a quarter note on B4.
- Quintus:** Treble clef, one flat. The melody starts with a quarter note on G4, followed by a quarter note on A4. The final part of the measure consists of a beamed eighth-note triplet: G4, A4, B4. A large oval is drawn around the final three notes (G4, A4, B4) of this part.
- Bassus:** Bass clef, one flat. The melody consists of a half note on G3.

Ex. 89.--Pater Noster (1575), measure 80.



Ex. 90.--Ego Rogabo Patrem (1573), measures 62-63.

Handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The score is in G major (one sharp) and shows the first two measures of measure 27. Cantus I has a whole note chord in the first measure. Cantus II, Altus, and Quintus have quarter notes in the first measure. Bassus has a quarter note in the first measure. The second measure shows the continuation of the vocal lines.

Ex. 91.--Pascha Nostrum (1607), measure 27.

Handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The Cantus part has a dotted quarter note followed by two eighth notes. The Altus part has a half note with a slur over it. Quintus I has a whole rest. Quintus II has a dotted quarter note followed by two eighth notes. Bassus has a whole rest.

Ex. 92.--0 Admirabile commercium (1600), measure 43.

Soderlund says nothing concerning the appoggiatura. It is a dissonance found in the early Palestrina and late Byrd motets; as may be seen in Table III, it occurs more frequently in the later works of Byrd. Ex. 93 is one of the few illustrations of this dissonance found in these Palestrina motets; Ex. 94, from Byrd, shows three appoggiaturas.

The image displays a handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The music is written in G minor (one flat) and 4/4 time. The score consists of two measures, measures 41 and 42. Cantus I and Cantus II are in the soprano and alto clefs, respectively. Altus is in the alto clef, Quintus is in the tenor clef, and Bassus is in the bass clef. The notation includes various note values, rests, and phrasing slurs.

Ex. 93.--Domine Praevinisti Eum (1573), measures 41-42.

The image displays five staves of handwritten musical notation. Each staff is labeled with a voice part: Cantus I, Cantus II, Altus, Quintus, and Bassus. The music is written in G major, indicated by a single sharp (F#) on the key signature. The notation includes various note values, rests, and accidentals, with some notes circled to highlight specific dissonances or escape tones. The Bassus part is written in a bass clef.

Ex. 94.--Pascha Nostrum (1607), measures 10-12.

Another subject upon which Soderlund is silent is that of the escape tone. Obviously this and the appoggiatura are so infrequent in Palestrina that they did not warrant mention as notable dissonances. Ex. 95 and 96 illustrate escape tones as found in the Byrd motets.

Handwritten musical score for five voices, arranged vertically. Each staff is in treble clef with a key signature of one flat (B-flat). The notation is as follows:

- Cantus I:** Treble clef, one flat. Notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter).
- Cantus II:** Treble clef, one flat. Notes: G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), B3 (quarter), A3 (quarter).
- Altus:** Treble clef, one flat. Notes: G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), B3 (quarter), A3 (quarter).
- Quintus:** Treble clef, one flat. Rest for the entire measure.
- Bassus:** Bass clef, one flat. Rest for the entire measure.

Ex. 95.--Laetenur Coeli (1589), measure 19.

The image shows five staves of handwritten musical notation, labeled from top to bottom as Cantus I, Cantus II, Altus, Quintus, and Bassus. Each staff contains a sequence of notes and rests across four measures, illustrating a cadence. The notation is in a single system, with each voice part on its own staff. The notes are written in a style consistent with 17th-century manuscript notation.

Ex. 96.--Alleluia. Ascendit Deus (1607), measure 14.

Cadences

The clausula vera (true cadence) is the basic formula for most cadences. It is approached by step from above and from below. This is the formula for the Phrygian cadence, approached by half step from above and by whole step from below.

(p. 24)

The Phrygian cadence is a clausula vera type. The initial chord is complete in the first inversion and moves to a double final and a major third: D minor to E major, or G minor to A major are examples of this cadence. (p. 75)

The third of the initial cadence chord steps downward to the raised third in the final cadence chord. Ex. 97 shows a Phrygian cadence as used by Byrd.

The musical score for Ex. 97 is written in G minor (one sharp, F#) and consists of five staves:

- Cantus I:** A melodic line starting with a half note G4, followed by quarter notes F#4, E4, D4, C4, and B3.
- Cantus II:** A melodic line starting with a quarter rest, followed by a quarter note G4, and then a triplet of quarter notes F#4, E4, and D4.
- Altus:** A melodic line starting with a quarter rest, followed by quarter notes G4, F#4, E4, and D4.
- Quinthus:** A melodic line starting with a quarter note G4, followed by a quarter note F#4, and then a quarter rest.
- Bassus:** A bass line starting with a half note G3, followed by quarter notes F#3 and E3.

Ex. 97.--Haec Dies (1607), measure 33.

To the clausula vera type of cadence a third part is added which, when in the lowest part, results in what was later called the authentic cadence. The initial cadence chord, a complete triad, progresses to a triple final or a double final and a third; the bass, or the lowest part, moves up a fourth or down a fifth. (p. 74)

The raised third in the final cadence chord is reached by: a skip from the octave to the raised third; the same skip abridged by a passing seventh; or the fifth to the raised third by an upward step. (p. 118)

Ex. 98 illustrates the authentic cadence as Palestrina makes the fifth of the first chord progress to the raised third of the second chord.

The image displays five staves of handwritten musical notation, likely from a 16th-century manuscript. The parts are labeled as follows:

- Cantus I:** Shows a half note followed by a quarter note, with a fermata over the quarter note.
- Cantus II:** Shows a whole note with a '5' above it, followed by a half note with a '3' above it, indicating a mordent or grace note.
- Altus:** Shows a sequence of eighth notes.
- Tenor:** Shows a sequence of eighth notes.
- Bassus:** Shows a whole note with a '4th' above it, indicating a mordent or grace note.

Ex. 98.--Domine Praevinisti Eum (1573), measures 73-74.

Ex. 99 illustrates the octave proceeding to the raised third as used by Byrd.

The image shows a handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is written in a key with one flat (F major or D minor) and consists of two measures. The Cantus part has a half note G in the first measure and a half note A in the second measure, with a fermata over the A. The Altus part has a half note F# in the first measure, a half note G in the second measure, and a half note A in the third measure, with a fermata over the A. The Quintus I part has a half note F# in the first measure, a half note G in the second measure, and a half note A in the third measure, with a fermata over the A. The Quintus II part has a half note F# in the first measure, a half note G in the second measure, and a half note A in the third measure, with a fermata over the A. The Bassus part has a half note F# in the first measure and a half note A in the second measure, with a fermata over the A.

Ex. 99.--Emendemus in Melius (1575), measures 50-51.

The complete diminished triad in the first inversion as an initial cadence chord, also the clausula vera type, progresses to a double final and a fifth or a fourth. This is sometimes called the leading tone cadence. (p. 74)

The raised note (the modern leading tone) in the initial cadence chord may be approached: stepwise from above; stepwise from below; by a

descending skip of a third; or by an ascending skip of a third. (p. 118)

Ex. 100, from Palestrina, represents the leading tone cadence as used by Byrd too.

The musical score consists of five staves. The first staff is labeled 'Cantus I' and shows a melodic line in G major. The second staff is labeled 'Cantus II' and shows a similar melodic line, with a circled 'L.t.' (leading tone) in the final measure. The third staff is labeled 'Altus' and shows a lower melodic line. The fourth staff is labeled 'Quintus' and shows a lower melodic line. The fifth staff is labeled 'Bassus' and shows a bass line with rests. The music is in 4/4 time and G major.

Ex. 100.--Domine Praevinisti Eum (1573), measures 51-52.

Another cadence type of great frequency, later called the plagal cadence, is based on a root movement of a fifth up or a fourth down.

The complete initial cadence chord progresses to a double final and a fifth, or the initial chord, with doubled root and a third, to a complete triad.
(p. 74)

These are the approaches to the raised third of the final chord in the plagal cadence: the octave by step downwards to the raised third; or the sixth by step upwards to the raised third.
(p. 118)

Ex. 101, from Byrd, represents the typical treatment of the plagal cadence by both composers.

Handwritten musical score for five voices: Cantus, Altus, Quintus I, Quintus II, and Bassus. The score is in G major (one sharp) and consists of two measures. The Cantus part has a simple melody. The Altus part features a complex melodic line with a triplet and a 4-measure rest. Quintus I and Quintus II have simpler parts with some rests. The Bassus part shows a stepwise ascent in the first measure followed by a final cadence.

Ex. 101.--Libera Me Domine et Pone Me (1575),
measures 48-49.

Near the end of a phrase the initial cadence chord of an intended authentic cadence sometimes changes its direction. The effect is that of interruption or deception. In the most commonly used progressions the bass proceeds stepwise up, the second (deceptive) chord occurring in root position or in the first inversion; or the bass

goes down stepwise, the second chord a triad in root position. (p. 75)

Ex. 102 from Byrd is a series of deceptive cadences, or rather the repetition of a deceptive cadence.

The image shows a handwritten musical score for five voices: Cantus I, Cantus II, Altus, Quintus, and Bassus. The music is in G major (one sharp) and consists of five measures. The notation is as follows:

- Cantus I:** Treble clef, G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes), F#4 (quarter), E4 (quarter), D4 (quarter).
- Cantus II:** Treble clef, G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes), F#4 (quarter), E4 (quarter), D4 (quarter).
- Altus:** Treble clef, G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes), F#4 (quarter), E4 (quarter), D4 (quarter).
- Quintus:** Treble clef, G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes), F#4 (quarter), E4 (quarter), D4 (quarter).
- Bassus:** Bass clef, G3 (quarter), F#3 (quarter), E3 (quarter), D3 (quarter), C3 (quarter), B2 (quarter), A2 (quarter).

Ex. 102.--Dominus in Sina (1607), measures 15-16.

In linking phrases a device called hocketing is used. In sixteenth-century polyphonic texture the principle of truncating or interrupting the melody, especially at interior cadences, served the purpose of continuity. The note approaching the cadence point becomes the last note of the phrase, a rest taking the place of the cadence point, while the note approaching the cadence point from the other direction is allowed to proceed to it. While the cadence point is being held, the opposite voice introduces the theme of the next section or phrase, after the rest, thus producing dovetailing or overlapping. The interrupted phrase usually ended with a whole note or a breve on the strong beat. (p. 56)

Ex. 103 is an excellent illustration of the use of the hocket and interior cadence from Byrd.

The image shows a handwritten musical score for five voices: Cantus, Altus I, Altus II, Quintus, and Bassus. The score is written on five staves, each with a treble clef (except for the Bassus staff which has a bass clef). The key signature is one flat (B-flat). The time signature is not explicitly shown but appears to be common time. The score consists of measures 13-16. Several motives are circled and labeled with 'M' or 'New Motive'. The 'New Motive' is circled in the Altus I part in measure 14. Other motives are circled in the Cantus, Altus II, Quintus, and Bassus parts in measures 14 and 15.

Ex. 103.--In Resurrectione Tua (1589), measures 13-16.

Summary

The findings of this study show that, more often than not, Byrd and Palestrina utilized the same contrapuntal techniques in their motets. By using Saderlund's Approach to Sixteenth Century Counterpoint as a point of comparison, many exceptions to the supposed similarity of their styles were found. In the following paragraphs are listed those

points upon which the composers' styles are similar, different, and those points on which they differ from Soderlund's pronouncements.

The motets of Byrd and Palestrina show strong similarities in these areas:

1. Scale passages of an eleventh and less are frequent.
2. Single skips are usually approached and left in the opposite direction by step or skip, but may sometimes be approached or left by motion in the same direction.
3. The skip of a fifth is approached and left by step in the same direction. This is normally a less common practice.
4. Skips of a third are approached and left by step in the same direction.
5. Skips of an octave are approached and/or left by step in the same direction.
6. Repeated notes are frequent and are found anywhere.
7. Quarter [eighth] note skips are always descending when followed by white note values, and may be, when the skip is a third, left by motion in the same direction.
8. Hidden octaves may occur at cadences.

9. Hidden fifths occur between parts when one part moves stepwise and the other by skip.
10. Upper voices are not more than an octave apart. Sometimes the lower voice is more than an octave from the next higher one.
11. The leading tone usually goes into the cadence.
12. Unaccented quarter [eighth] note passing tones occur on the second half of any beat either ascending or descending.
13. The half [quarter] note passing tone is restricted to the second or fourth beats, is considered unaccented, and ascends or descends against double or more of its value.
14. Except when Byrd uses a suspension and its resolution both on the same beat, both composers agree on the uses of the 4-3, 7-6, 9-8, 2-1, and 2-3 suspensions.
15. Both composers use the consonant fourth as described by Soderlund.
16. The consonant and dissonant portamento devices are used accordingly.
17. The nota cambiata is used identically by both composers.
18. The following cadences are used by Byrd and Palestrina: Phrygian, leading tone, plagal, and deceptive.

19. Hocketing and interior cadences are employed by both composers.

The motets of Byrd and Palestrina show notable differences in these areas:

1. Byrd uses the melodic interval of the ascending seventh.
2. Byrd approaches a minor ascending sixth in the same direction as the skip.
3. Byrd frequently approaches and leaves skips outlining the major or minor triads and their inversions in the same direction.
4. Byrd uses two perfect fourths in the same direction in short note values.
5. Instead of using the accented quarter eighth note passing tone on the second or fourth beats, Byrd uses it on the first beat.
6. Occasionally Byrd places a suspension and its resolution both on the same beat.
7. Byrd makes use of two dissonances that Soderlund does not mention in his book, the appoggiatura and the escape tone.

The motets of Byrd and Palestrina also show some exceptions to Soderlund's rules:

1. One instance of a descending sixth was found in the Palestrina motets. Two descending sixths and two ascending sevenths were found in the Byrd motets.

2. Byrd and Palestrina both approach and leave the skip of a fifth in the same direction.
3. Byrd has three examples of a minor ascending sixth being approached in the same direction of the skip.
4. Byrd and Palestrina make frequent use of melodic sequences.
5. Both composers skip from stepwise quarter [eighth] note passages to white note values in the same direction.
6. The root movement used by both composers disagrees with Soderlund.
7. Byrd uses the dissonant upper neighbor more frequently than Palestrina, but the latter makes more use of it than indicated by Soderlund.
8. Both composers make use of the double suspension $\frac{9-8}{7-6}$, a subject about which Soderlund is silent.

APPENDIX A¹

PALESTRINA MOTETS

8. (II) Ego Rogabo Patrem, Vol. VII, pp. 47-50.
3. (I) Corona Aurea, Vol. VII, pp. 13-16.
1. O Virgo Simul et Mater, Vol. VII, pp. 1-6.
3. (II) Domine Praevenisti Eum, Vol. VII, pp. 17-20.
2. Ave Maria, Vol. VIII, pp. 5-10.
1. Pater Noster, Vol. VIII, pp. 1-5.
1. O Admirabile commercium, Vol. V, pp. 1-4.
2. Stella Quam Viderant Magi, Vol. V, pp. 5-9.
3. O Antoni Erenita, Vol. V, pp. 10-14.
8. (II) O Vera Summa Sempiterna Trinitas, Vol. V, pp. 50-53.
4. (I) Senex Puerum Portabat, Vol. V, pp. 15-19.
7. Crucem Sanctam Subiit, Vol. V, pp. 41-44.

BYRD MOTETS²

2. (5) Libera Me Domine et Pone Me, Vol. I, pp. 124-128.
1. (4) Emendemus in Melius, Vol. I, pp. 119-123.
17. In Resurrectione Tua, Vol. II, pp. 134-138.
29. Laetenur Coeli, Vol. II, pp. 212-215.
11. Deus Venerunt Gentes, Vol. II, pp. 80-84.
19. Aspice Domine de Sede, Vol. II, pp. 147-150.
24. Fascha Nostrum, Vol. VI, pp. 152-155.
21. Haec Dies, Vol. VI, pp. 132-136.

27. Dominus in Sina, Vol. VII, pp. 14-16.
4. Tui Sunt Coeli, Vol. VI, pp. 20-23.
3. Dies Sanctificatus, Vol. VI, pp. 16-19.
26. Alleluia. Ascendit Deus, Vol. VII, pp. 10-13.
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¹ Raffaele Casimiri, editor, Le Opere Complete di Giovanni Pierluigi da Palestrina (Roma, 1939-1950).

² Edmund H. Fellowes, editor, The Collected Vocal Works of William Byrd (London, 1937).

APPENDIX B
DISSONANCE ABBREVIATIONS

UPT - Unaccented Passing Tone

Susp. - Suspension

LN - Lower Neighbor

PT - Passing Tone

APT - Accented Passing Tone

UN - Upper Neighbor

Cons. - Consonant

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