

Vincenzo Galilei's "26 Ricercari" from Fronimo, Transcribed for Guitar:
Challenges and Solutions for Transcribing and Playing Italian Renaissance

Lute Tablature on the Modern Guitar

by

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ABSTRACT

In 1568, Vincenzo Galilei published the first edition of *Fronimo* as a guide to the art of intabulating¹ vocal music for the lute. A second edition was released in 1584 in which Galilei presents “26 Ricercari” to demonstrate the sound of each Glarean mode. These short works provide a methodical approach to experiencing the Renaissance modes through his beautiful writing for the lute.

This research project focuses on the “26 Ricercari” and explores the challenges of transcribing and arranging Renaissance lute tablatures to be played on the guitar. Topics such as making decisions for voicings, fingerings, tactus reductions, and formatting are examined. Historically-informed playing suggestions such as articulations, lute techniques, and tempo are also included.

Many lute and vihuela works, like the ricercari, have not yet been transcribed. The ricercari tablatures are idiomatic and instantly playable for guitarists who are familiar with different forms of tablature, but most classical guitarists today are familiar only with modern staff notation. Because of this, Galilei’s works have been wrongfully neglected.

My project presents the first guitar edition of these works, along with the documentation of my methodology, and serves as an aid to others for transcribing lute tablatures.

¹ Making an arrangement of a vocal or ensemble piece, and notating it in tablature.

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CHAPTER 1

OVERVIEW OF GALILEI, FRONIMO, AND “26 RICERCARI”

Introduction

In my project, the “26 Ricercari” from the 1584 edition of *Fronimo* by Vincenzo Galilei are transcribed and edited for the guitar. These pieces are beneficial to modern guitarists in that they introduce Galilei’s beautiful style of composing for the lute, as well as sample each Renaissance mode (discussed later in this chapter). Many of Galilei’s lute compositions have not yet been transcribed—with the most associated transcription, “Saltarello,” erroneously attributed to him by Andrés Segovia.² A transcription of the ricercari into modern notation will not only allow players of other instruments to perform the work, but will also enable performers to see “functional aspects of the music such as pitch relationships, voicing, and harmonic structures.”³ This transcription is intended to be performed on the guitar; therefore, the fingerings, separation of voices, the resulting sustain and overlapping of notes, and other modifications are editorial.

Vincenzo Galilei

Vincenzo Galilei (c. 1520–1591) was an Italian lutenist, music theorist, composer, and father of the famed astronomer and physicist Galileo Galilei. He studied the lute as a

² Galilei composed twelve saltarelli in *Libro d’Intavolatura di Liuto* (1584), but the saltarello misattributed to Galilei is an anonymous folk-sounding piece with a dropped-D ostinato. The work is not in Galilei’s style and is also not formally a saltarello. The piece was likely found in Oscar Chilesotti’s lute collection, *Da Un Codice*, where it is titled “Italiana.”

³ Frank Koonce, *The Renaissance Vihuela and Guitar in Sixteenth-Century Spain*, (Pacific, MO: Mel Bay Publications, 2008), 15.

young boy and caught the attention of Giovanni de' Bardi.⁴ In addition to becoming Galilei's patron, Bardi recruited Galilei into the Florentine Camerata, a group of humanists, musicians, poets, and intellectuals.⁵ Bardi knew of Galilei being heavily interested in music theory; so, in 1563, he provided funding for Galilei to study with Gioseffo Zarlino, an acclaimed music theorist.⁶ Afterward, Galilei published music theory texts, lute intabulations (arrangements), and original compositions, beginning with his *Intavolature de lauto* (1563), which contains twenty-four intabulations and six original ricercari.

Galilei is perhaps best known as a music theorist with his major published writings *Fronimo* (1568 and 1584) and *Dialogo della musica antica, et della moderna* (1581). *Fronimo* mostly deals with effectively arranging vocal compositions for lute. *Dialogo* discusses many topics with a central theme of "the applicability, or not, of the theory and practice of ancient Greek music to the musical practice of Galilei's time."⁷ Galilei was prolific, with around 500 surviving works including over 200 intabulations.⁸ Galilei intabulated many vocal compositions for lute in published collections such as

⁴ Claude V. Palisca, "Galilei, Vincenzo," *Grove Music Online* (accessed 16 February 2020).

⁵ Claude V. Palisca, *The Florentine Camerata: Documentary Studies and Translations* (New Haven: Yale University Press, 1989), 153.

⁶ Ibid.

⁷ Claude V. Palisca, foreword to *Dialogo della musica antica, et della moderna*, by Vincenzo Galilei, trans. Claude V. Palisca (New Haven: Yale University Press, 2003), xvii.

⁸ Victor Coelho and Keith Polk, *Instrumentalists and Renaissance Culture, 1420–1600: Players of Function and Fantasy* (Cambridge: Cambridge University Press, 2016), 106.

Intavolature de lauto and the two editions of *Fronimo*. Despite being known as more of an arranger, Galilei composed two books of madrigals (1574 and 1587),⁹ a collection of 29 two-voice contrapuntal compositions (1584),¹⁰ and many original lute works in *Fronimo*. In the 1584 edition of *Fronimo*, Galilei writes that he intends to publish, “god willing,” many new, original works.¹¹

Among them there will be French, Spanish, and Italian songs and motets, which altogether will exceed three thousand, divided into a hundred books. There will be in addition about two hundred Ricercars by him and others, divided into ten books. This same man has composed, among many other things, more than five hundred Romanescas, three hundred Pass’ e mezzi, a hundred Gagliarde, each different, besides many Arie on divers themes, and Saltarelli—all of which he intends to publish in ten other volumes.¹²

This statement is unquestionably hyperbolic, as he writes about himself directly after: “I have also seen him many times intabulate and play music for 40, and 50, and 60 parts.”¹³ However, he did write a 272-page manuscript of all original works containing romanescas, passemazzi, gagliardas, and ricercari, among other genres in *Libro*

⁹ *Il primo libro de madrigali a quatro et cinque voci de Vincentio Galilei nobile fiorentino* (Venice: Antonio Gardano, 1574); and *Il secondo libro de madrigali a quattro, et a cinque voci di Vincentio Galilei nobile fiorentino* (Venice: Angelo Gardano, 1587).

¹⁰ *Contrapunti a due voci di Vencenzio Galilei nobile fiorentino* (Florence: Giorgio Marescotti, 1584).

¹¹ Vincenzo Galilei, *Fronimo: 1584*, trans. Carol MacClintock (Neuhausen-Stuttgart: Hänssler-Verlag, 1985), 159.

¹² *Ibid.*

¹³ *Ibid.*

d'Intavolatura di Liuto (1584). This work exists in manuscript form, which Luis Gasser concludes was not accepted for publication because it was thought to be unprofitable.¹⁴

Fronimo

In 1568, Vincenzo Galilei wrote *Fronimo*, a method book for playing, composing, and intabulating vocal music for the lute. The text is presented as a conversational lesson between an imaginary lutenist named Fronimo (“Sage” in ancient Greek) and his student Eumazio (“He who learns well”). Eumazio primarily asks questions, and Fronimo answers and plays the lute with the printed music serving as the music played. Galilei provides musical examples throughout to illustrate how compositions should be structured and how intabulations should be made. The 1568 edition of *Fronimo* contains 95 complete intabulations, eight ricercari, eight fantasias, and a duo.¹⁵

The 1584 edition of *Fronimo* is essentially the same but with added material including five pieces in the First Part, thirty new pages of text and music in the Second Part, and a completely new anthology.¹⁶ The 1584 collection includes 124 intabulations of madrigals and canzoni from 34 Italian, Flemish, French, and Spanish composers, with

¹⁴ Luis Gasser, “Vincenzo Galilei’s Manuscript Libro d’intavolatura di liuto (1584): An Introductory Study” (D.M.A. Final Project, Stanford University, Stanford, 1991), 6, Stanford SearchWorks.

¹⁵ *Ibid.*, 3.

¹⁶ Carol MacClintock, foreword to *Fronimo*, by Vincenzo Galilei, 10.

most written between 1547 and 1561.¹⁷ For the 1568 version, Galilei instead included madrigals by eight contemporary composers.

Unlike many lute texts from the sixteenth century, *Fronimo* is not simply a lute book with elementary descriptions of how to play the instrument;¹⁸ the bulk of the material concerns the art of intabulating music. Other topics covered by Galilei include voice leading, counterpoint, and modes. He also gives his opinion on emerging lute issues like tuning, additional bass strings, and *tastini* (little frets that are glued between the conventional frets).¹⁹

Galilei's Lute

The lute was the most widely used instrument in sixteenth-century Italy.²⁰ Galilei preferred the most prevalent variation—with six courses—the five lowest of which were doubled in unison (or sometimes an octave apart for the two lowest courses). The first string, the *chanterelle*, was not doubled. Galilei used the most common tuning, G C F A D G, from lowest to highest.

The lute has frets, similar to the guitar, but they were moveable, made of animal gut, usually from the small intestine of sheep, and tied around the neck. Galilei urged

¹⁷ Gasser, “Vincenzo Galilei’s Manuscript,” 5.

¹⁸ MacClintock, foreword to *Fronimo*, 9–10.

¹⁹ Galilei, *Fronimo*, 155–156.

²⁰ Gustave Reese, *Music in the Renaissance*, revised ed. (New York: Norton, 1959), 520.

players not to slant the frets or have unequal semitones.²¹ If frets are uneven, a note might be perfectly in tune on one string but horribly out of tune on another.

26 Ricercari

Midway through the 1584 edition of *Fronimo*, Galilei presents “26 Ricercari” to demonstrate the sound of each Glarean mode.²² There are twelve ricercari that use *b duro* (B-natural), twelve that use *b molle* (B-flat), and two additional ricercari. Like most of the music in *Fronimo*, the ricercari are written in Italian lute tablature. They are short, chordal studies with occasional scale passages, written in a chorale style, often with four independent voices.

The title “recercare”²³ was first published by the lutenist and composer Francesco Spinaccino in *Intabolatura de Lauto* (1507).²⁴ Reese refers to ricercari as “short quasi-improvisational pieces” that were designed as a prelude or postlude to an intabulation of a vocal work in the same mode.²⁵ Other composers wrote ricercari, such as Francesco Canova da Milano for lute and Girolamo Frescobaldi for keyboard.

²¹ Galilei, *Fronimo*, 155–158.

²² Heinrich Glarean (1488–1563) was a Swiss music theorist most known for his contribution of the authentic and plagal forms of the Aeolian and Ionian modes in his publication *Dodecachordon*.

²³ Ricercare (sing.) and ricercari (pl.) are used by Galilei. Other terms used by other composers for the same genre are ricercar, recercar(e), recerchar(e), ricercate, recercada and ricercata.

²⁴ Reese, *Music in the Renaissance*, 521.

²⁵ *Ibid.*, 521.

In *Dialogo della musica antica, et della moderna*, Galilei gives his opinion on the genre and the failings of some composers when they write in it.²⁶ He comments that they are usually presented as fugues written for four voices with rampant imitative counterpoint.²⁷ Galilei derides the “too strict observance of the imitations that most composers employ in these fugues, driven more by ambition than anything else.”²⁸ He compares this excessive complexity of this compositional style to the poetic form *sestine*, which “we draw less juice than from almost any other species of poetry.”²⁹ Galilei’s preference of monody can be seen in the *ricercari* with limited use of imitation and often with just one active voice at a time.

Modes

The twelve modes used during the Renaissance existed both in their “authentic” and related “plagal” forms (the latter indicated with the Greek hypo prefix).³⁰ The plagal modes share the same final with their authentic counterparts, but the range of these modes are different. Plagal modes begin a perfect fourth below the final and extend to a fifth above the final. Every mode has a set way to end regularly and a certain distance

²⁶ Galilei, *Dialogo della musica antica, et della moderna*, 218.

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

³⁰ Other interchangeable words for modes are “tones,” “harmoniae,” and “tropes.”

away from the final (primary note) the voice may ascend or descend. In modern modal music, the finals and distance from them are no longer important.

The last four modes Aeolian, Hypoaeolian, Ionian, and Hypoionian were not a part of the original eight modes. Zarlino maintains that these are not new modes as musicians before Heinrich Glarean used them, but they were not recognized or classified correctly before Glarean's *Dodecachordon*.³¹ The modes and their numerical order are listed below.



Figure 1. Renaissance Modes.

In the Renaissance, each mode was tied to its nominal tonic (i.e., D for Dorian, E for Phrygian), but it was acceptable to transpose simply by flattening the B to cater to the

³¹ Gioseffo Zarlino, *On the Modes: Part Four of Le Istitutioni Harmoniche*, 1558 (New Haven: Yale University Press, 1983), 52–53.

instrument or voice.³² In the *ricercari*, Galilei does not merely stay in the designated mode. The outer measures will usually suggest the primary mode with departures to different key centers and modes in the middle measures. Galilei often goes to the relative Ionian or Aeolian modes, perhaps beginning to favor major and minor key systems over church modes.³³

Despite his criticisms of his former teacher, Galilei recommends players consult Gioseffo Zarlino's fourth book of *Le istituzioni harmoniche*.³⁴ While Galilei does not suggest tempo, mood, or dynamics in the *ricercari*, he does suggest looking to Zarlino's text for information about the modes and their qualities.³⁵

Gioseffo Zarlino's *Le istituzioni harmoniche*

Gioseffo Zarlino (1517–1590) was an Italian music theorist and composer. In 1558, he published his most significant work, *Le istituzioni harmoniche*. Although printed in the middle of the sixteenth century, Gustave Reese contends that it is mainly a treatise on the common practice of the first half of the century.³⁶ Book IV of *Le istituzioni harmoniche* contains an analysis of each Renaissance mode.

³² *Ibid.*, 77.

³³ Palisca, "Galilei, Vincenzo."

³⁴ Galilei, *Fronimo*, 128.

³⁵ *Ibid.*

³⁶ Reese, *Music in the Renaissance*, 377.

What can be gained from Zarlino’s analysis of the modes? It is understood that when playing or singing in a specific mode, the music would have a general tempo and mood.³⁷ Players can be inspired by the performance practice suggestions of each mode provided in Book IV of *Le istituzioni harmoniche*.

Mode	Description by Zarlino
I. Dorian	religious, devout, and somewhat sad
II. Hypodorian	lamentful, humble, and deprecatory
III. Phrygian	hard, weeping, tearful
IV. Hypophrygian	love, languor, quiet tranquility, deception, slander
V. Lydian	modesty, happiness, joyous, modest
VI. Hypolydian	funereal, calamitous, devout, serious, tearful
VII. Mixolydian	lustful, lascivious, extremes of cheerfulness and angry
VIII. Hypomixolydian	tame, civilized, soft, sweet
IX. Aeolian	open, terse, pleasant severity, sonorous
X. Hypoaeolian	sad, love, lethargic
XI. Ionian	sweet, beautiful, lascivious, suitable for dances
XII. Hypoionian	love with a melancholic quality

Figure 2. Descriptions of Each Mode by Zarlino.³⁸

Purpose of this Paper

Challenges of transcribing lute tablature and playing considerations are explored in this document. My methodology for transcribing Renaissance lute tablature encompasses topics such as fingering choices, voice decisions, tactus reductions, and formatting. Historically-informed playing suggestions such as articulation, lute-playing technique, and tempo are included. This paper is meant to be not only an accompaniment adjunct to the transcription of the *ricercari*, but also a source of helpful advice for players to transcribe and perform other tablatures.

³⁷ Claude Palisca, “Zarlino, Gioseffo,” *Grove Music Online* (accessed 16 February 2020).

³⁸ Zarlino, *On the Modes*, 54–89.

CHAPTER 2

TRANSCRIPTION AND ARRANGEMENT CONSIDERATIONS

Introduction

Transcribing lute tablature into modern notation for guitar involves many challenges. Some of the most significant problems include the assignment of a note to a specific voice, whether it is part of the melody or harmony, and whether it should be sustained and overlapped so that it serves both a melodic and harmonic function. Often in the *ricercari*, there are three, and sometimes four voices—the latter of which can be overwhelming when written as an independent line on a single staff. To resolve this, the middle voices often are stemmed together, as was common practice in single-staff notation, to avoid the clutter and visual confusion that otherwise would occur. Players then must use their own judgment as to whether one middle voice should sustain longer than another. Other topics like tablature intricacies, *tactus*, and alternate fingerings also must be considered.

Italian Lute Tablature

Tablature was the preferred notation for lutenists in the Renaissance. The word is derived from the Latin *tabula* (table) and graphically represents where notes are played on the instrument. MacKillop likens tablature to a “map of where to put your fingers and when to put them there.”³⁹ The three forms of lute tablature—Italian, French, and

³⁹ Rob MacKillop, *Introduction to the Lute* (Pacific, MO: Mel Bay Publications, 2016), 12.

German—were developed in the second half of the fifteenth century.⁴⁰ German tablature fell mostly out of use by the seventeenth century, with the Italian and French forms still in continued use today. Italian lute tablature is used by Galilei throughout *Fronimo* and will be discussed here.

Italian tablature uses numbers to indicate the fret number, and lines to represent the courses—with the top line representing the sixth string. Unlike modern guitar tablature, the positions of the first and sixth strings are reversed; when looking at Italian tablature, the lines are a mirror reflection of the instrument's strings. There are some other differences between these two systems: While modern guitar tablature frequently does not indicate rhythms, Italian lute tablature shows a note's value, which is expected to be continued for subsequent notes until one with a different time value occurs. In other words, a new rhythm is not shown unless it is changed. Importantly, the rhythms do not show sustain of the pitches, but only when to play them; therefore, consecutive notes that are across different strings may be sustained and overlapped if desired. Crosses are used occasionally to indicate sustained pitches that might be overlooked, such as a bass note or suspension. If the fret number would require double digits, Roman numerals are used instead of numbers (X, XI, XII) so as not to confuse the reader; for example, "10" could be mistaken as being two notes—the first fret and the open string.

⁴⁰ Thurston Dart, "Tablature," *Grove Music Online* (accessed 5 February 2020).



Figure 3. Ricercare No. 20, Original Tablature.⁴¹

Tactus

The tablature for the ricercari has barlines that appear to divide the music into measure groupings, as in modern notation. However, these groupings are purely for organizing the down and up beats. Vihuela composer Luis Milán compares these groupings to when you “raise and lower the hand or foot for an even tempo.”⁴² This movement, a common method of counting the pulses (or beats) in the fifteenth and sixteenth centuries, is called the “tactus.”⁴³ First described in detail in *De musica* (1490) by Adam von Fulda, a single tactus consists of two hand motions—down and up.⁴⁴ This is represented in transcriptions of duple-metered Renaissance works by using two-beat time signatures, such as 2/4 and 2/2, instead of the modern 4/4.

⁴¹ Galilei, *Fronimo*, 134.

⁴² Luis Milán, *El Maestro*, trans. Charles Jacobs (University Park: Pennsylvania State University Press, 1971), 17.

⁴³ Howard Mayer Brown, “Tactus,” *Grove Music Online* (accessed 23 January 2020).

⁴⁴ *Ibid.*

A 1:2 tactus augmentation is used in the transcription of the ricercari to double the value of each note from the graphically similar mensural notation rhythms. This decision was made because of the fast rhythmic values of 32nd notes and 64th notes that guitarists are generally not accustomed to reading. To keep the same measure groupings, I use the time signature 2/2 (*alla breve* or “cut time”) for the entirety of the ricercari. In other Renaissance works, a transcriber may use a tactus reduction, in which note values are halved to accommodate smaller note values with which players are accustomed. Some transcribers also choose to combine more than one tactus into a single measure to make for easier reading for the modern player.

Decisions for Voicing and Note Sustain

Because tablature is presented as one large layer with a single rhythm, the transcriber must make decisions concerning voicing and note sustain. Many of these decisions are subjective, but harmony, distances between intervals, and practical aspects pertaining to performance on the lute can help the transcriber make deliberate choices. Harmony can inform how to determine the sustain of all of the voices. Galilei typically uses triadic harmony with non-chord tones for connective embellishments. An understanding of the harmonic changes should advise the transcriber in determining which voices should not be held to avoid harmonic clashes and unintended dissonances. The bass is the most critical voice, as it is generally slower-moving and uses fewer nonharmonic tones.

Special care should be taken to sustain non-chord tones that resolve, such as suspensions, which are held even though the harmony changes. Galilei sometimes

indicates sustain with a cross after a note, but not always. In *Fronimo*, he intabulates the three-voice canzona “Qual miracolo Amore” with just a few crosses for when the sustain of a note may not be evident to the player.⁴⁵ Prior, Galilei intabulates a two-voice vocal duo presented in mensural notation and uses many more crosses than in the works with three or more voices.⁴⁶ Likely, he did not use many crosses in the denser textures to make for a cleaner presentation of the tablature.

Some fingerings in the tablature are chosen only so that the suspension can continue to resonate over the change of harmony. When events like a suspension occur in an inner voice, it is desirable to separate that voice from another inner voice that does not sustain. The other inner voice is then stemmed with the next closest voice or potentially expanded into becoming four independent voices.

Consequently, the transcriber must discern the placement of pitches into soprano or alto voices, as well as bass or tenor voices. Intervallic distances can help the transcriber in making these choices. In the *ricercari*, Galilei composes in four-part harmony and never writes more than four notes plucked simultaneously; this provides a basis for voice assignment. With little exception, the first string is used in the soprano voice, and the sixth string is used in the bass voice. The transcriber should try to have the outer voices sustain for their full values whenever possible. In the *ricercari*, the voices usually have conjunct motion with limited leaps. Occasionally, however, Galilei employs leaps as a motif, such as in the soprano voice of measures 18–21 in *Ricercare No. 22*.

⁴⁵ Galilei, *Fronimo*, 44–45.

⁴⁶ Galilei, *Fronimo*, 42.

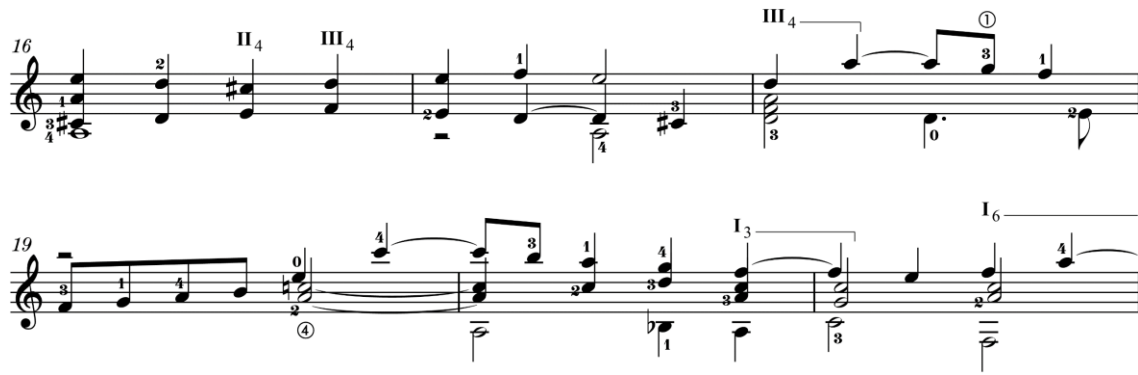


Figure 4. Ricercare No. 22, mm. 16–21.

Omitted Notes

In the ricercari, I decided to omit notes that inhibit the playability and general flow of the music. Galilei mentions that “if necessity constrains,” notes can be excluded “not only for grace but also for convenience.”⁴⁷ He wrote the ricercari with the ideal of having four voices ringing simultaneously. Unfortunately, this can make active voices sound fragmented and somewhat awkward, especially when juxtaposed with successful measures in this style. Before choosing to omit a note, I weighed the outcome (i.e., playability, having legato articulations for the active voice, having non-abrupt chord changes, and so on), versus what qualities the omitted note would add, besides the significance of it being the original. The omitted notes are shown in parentheses so that players can decide for themselves whether to include them or not. If included, the suggested fingerings must be altered.

⁴⁷ Ibid., 91.

Omitted Notes: Chord Changes

Chord changes can benefit from omitting a note in chords that require a dramatic change in hand configuration. In measure 5 of *Ricercare No. 5*, the C on the fifth string is omitted because, otherwise, it would require barré with an abrupt detachment and shift to play the chord on beat four. The suggested fingering, with C omitted, allows for a smooth connection of all the other voices.



Figure 6. *Ricercare No. 5*, m. 5.

The closing of *Ricercare No. 1* also benefits from omitting a few notes in measure 22 because of the impossibility of having a legato connection of chords that use all four fingers in different shapes. The fifth of the D chord is removed, as suggested by Galilei himself, who mentions that the fifth can be omitted in the inner voices if necessary.⁵⁰ The B-minor chord has an omitted octave, which is also recommended by Galilei if needed.⁵¹ Measure 23 has two notes of a G chord omitted to preserve the legato articulation of the active soprano voice, with the sustain of the bass; in the original tablature, the full chord immediately drops out as a result of a shift from third position to second.

⁵⁰ Ibid.

⁵¹ Ibid.

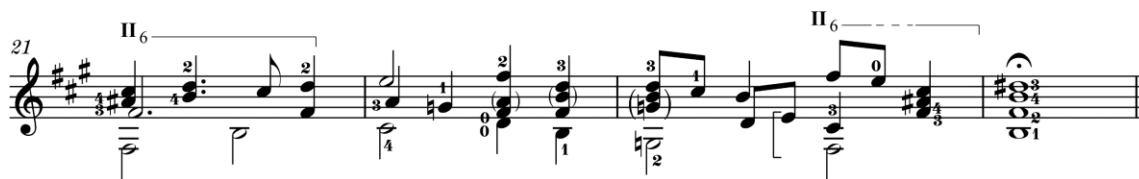


Figure 7. Ricercare No. 1, mm. 21–24.

Fingering Choices

Fret positions from the tablature can be changed to keep prominent voices intact, sustain desired voices, and increase playability. Many of the ricercari require arduous fingerings or abrupt shifts that can be remedied with better options and with minimal to no losses of content. Galilei tries to have all the voices of a harmony ringing together, which sometimes results in noticeable fragmenting of the moving lines. I aim to provide fingerings and optimal fret positions that promote playability and legato connections within the individual voices. With that said, this is a performance edition, not a scholarly edition; players are encouraged to make choices based on their personal interpretation and preferences. Ample fingerings are given in the ricercari, particularly on the third string to aid guitarists who may not be accustomed to lute tuning.

Formatting

In order for more than two voices to cleanly appear onto one staff, the soprano and bass should have independent stems going up and down, respectively. The inner voices are combined into one layer and are usually stemmed upwards. The inner stems must be offset if they collide with other stems of a different rhythm. Moreover, stems of different voices can be joined if they are in the same rhythm. This may be undesirable when the transcriber wants to indicate another voice, despite the shared rhythm.

Methodology

The most rigorous and time-consuming task in preparing this guitar edition was to transcribe the Italian lute tablature into modern notation. My method was to first tune the guitar like the lute, with the third string lowered a half step, and to play directly from the tablature. Then, the notes were converted into modern staff notation with the music-engraving software, Finale, using just one layer— similar to how the tablature itself is presented. This transcription style is sometimes called a “literal” transcription, as opposed to an “interpretive” or “subjective” transcription. Because the nominal pitches of the lute strings are a minor-third higher than on the modern guitar, the notes are lowered by that amount to accommodate the tessitura of the guitar. Fingerings were then added, based on the fret positions shown in the tablature, to see the composer’s choices. Options for different fingerings were then considered and separated into voices, with longer rhythmic values given to selected notes so that they could sustain and overlap other voices.

CHAPTER 3

PLAYING CONSIDERATIONS AND SUGGESTIONS

Articulation

The interpretation of lute works transcribed for the modern guitar requires attention to articulation choices. As was standard at the time, articulation designations are not present in the *ricercari*. These include indications for legato, staccato, accents, and slurs. Guitarists must decide on the application of articulations to make for a more exciting and sometimes more playable performance. Players must always consider performance practice and lute technique to make pragmatic choices in their interpretation. Despite this discussion, articulation has not been added to the present transcription, so that players can make their own choices.

Legato

The player's default articulation should be legato but without unnecessary slurs. Bruce MacEvoy states that "guitarists should attempt to play diminutions as legato as possible even though each note is sounded by an individual stroke of the right hand."⁵² Some pitch relationships, like suspensions and leading tones, necessitate a smooth connection to their resolution. Reading the tablature does not make these relationships apparent, which is a crucial purpose for transcribing into modern notation. Galilei tends

⁵² Bruce MacEvoy, "The Renaissance Thumb-Under Lute Technique," *Divisions* 1, no. 3 (1979): 10, <https://home.cs.dartmouth.edu/~lsa/publications/MacEvoy/MacEvoyLuteTechnique.pdf> (accessed 16 February 2020).

to use fret positions in which all the notes of the harmony can fully be heard.

Unfortunately, these positions sometimes make for impossible legato articulations because of the abrupt shifts that are required. I have sought to remedy these problems while being mindful of Galilei's intent with fret locations on the instrument, which can indicate sustain, voicing, and a held suspension.

Even with ideal fingerings, legato articulations can be challenging to achieve in some measures. Playing recommendations are offered to help alleviate these obstacles. According to Neil Anderson, Aim-directed Movement (ADM) is a concept "that stresses practicing movements to and from notes instead of merely learning the notes themselves. Essentially a memorization of motion, ADM can minimize your dependence upon consciously recalling notes, thus enabling you to think more about the interpretive elements of a performance."⁵³ ADM makes for efficient transitions between left-hand configurations, which aids in making legato articulation. In the example below of Ricercare No. 15, the transition from measure 2 to measure 3 requires an immediate change of the left-hand shape, in addition to a shift. Foresight of this will make for a more economic change and a smoother connection between the chords.

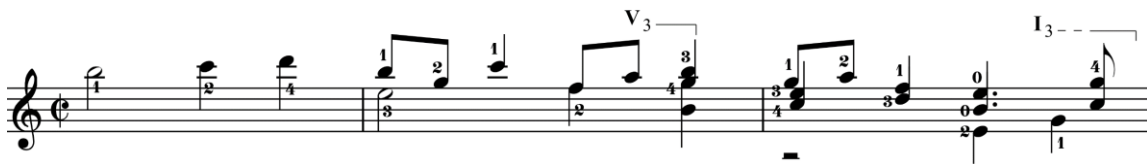


Figure 8. Ricercare No. 15, mm. 1-3.

⁵³ Neil A. Anderson, *Aim Directed Movement, Guitar Player* (March 1980), 24-25.

Illusion of Legato

There are a few different techniques that guitarists can employ to give the illusion of legato when actual legato is impossible, such as in a shift or hand configuration change. The first “trick” is to connect the most recently played note to the one that follows in another voice to give the impression of legato in the other voices. Strictly speaking, if the active voice is legato, it can mask the articulation of less active voices. In measure 37 from *Ricercare No. 13*, the legato bass voice gives the effect of legato in the higher voice, despite this connection being impossible because of a shift.



Figure 9. *Ricercare No. 13*, m. 37.

Similarly, another technique is to sustain most of the voices, even if one of the notes must be cut short. On the second quarter note in measure 9 of *Ricercare No. 16*, the third finger must move to the sixth string to play the bass note G. The first and second string can still be held to sustain those notes, making it seem as if the third string is sustained as well.

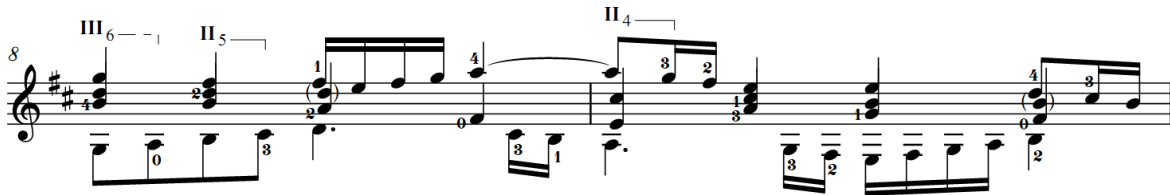


Figure 10. *Ricercare No. 16*, mm. 8–9.

Shifting on an open string is a common method in making an otherwise irregular melodic line sound legato. In the example below, an open first-string precedes high C;

playing this open E frees the hand to shift and connect to the C. Moreover, this fingering provides a continuous sound that gives the impression of legato in the lower voice.



Figure 11. Ricercare No. 4, m. 11.

The last technique to provide an illusion of legato is the use of “rolls” (which will also be discussed in detail in their respective section). A roll is the quick arpeggiation of a chord. Because it is typically performed from low to high, the lowest note can be plucked while the other notes are being prepared. A connection of the lowest note of a chord to the one that precedes it (even if it is in another voice) gives an impression of the whole chord being legato. This technique is most valuable when the lowest note of the chord is an open string that provides an opportunity to shift if needed. Rolls can be used for legato purposes in every ricercare, particularly on the final chords, where it is used for expressive purposes as well. On the second beat of measure 3 in Ricercare No. 16, the player must shift from a fourth-fret barré with a somewhat clumsy left-hand configuration of the third finger on the lowest string and the fourth on the highest string. Because the following chord’s lowest note is an open sixth-string E, the harmonies are able to connect with a roll and a quick position shift.

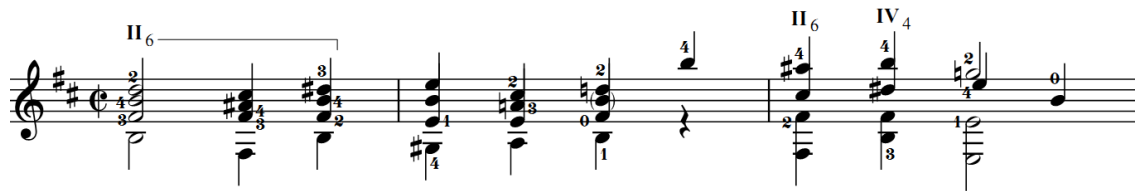


Figure 12. Ricercare No. 16, mm. 1–3.

Staccato

Staccato articulation, or shortened notes, can provide a clean separation to hide problematic shifts. The juxtaposition of legato and staccato articulation can also give a passage a crisp, dance-like feel. For instance, holding the first chord for its full value in *Ricercare* No. 24, and following this by two staccato chords, provides a more compelling articulation than consistent legato articulation. In addition, this moment benefits from being played staccato, as the last two chords in measure one have a two-fret shift with the fourth finger in addition to an added barré. Playing the middle chord in the measure with a staccato articulation separates the next chord so that a noisy shift does not occur.



Figure 13. *Ricercare* No. 24, mm. 1–2.

The chordal ending of *Ricercare* No. 16, beginning in measure 13, is a perfect opportunity to add staccato articulations. Here, pairing the syncopated chords with staccato highlights the unexpected rhythm. The first two chords in measure 14 also benefit from being played staccato because they require quick shifts in addition to rapid changes of the hand shape; an attempt to play these chords legato results in an awkward sound. I recommend playing the eighth-note chords staccato from the second beat of measure 13 until the end; the rest of the rhythmic values should remain legato. A proposed articulation of this section is shown below.

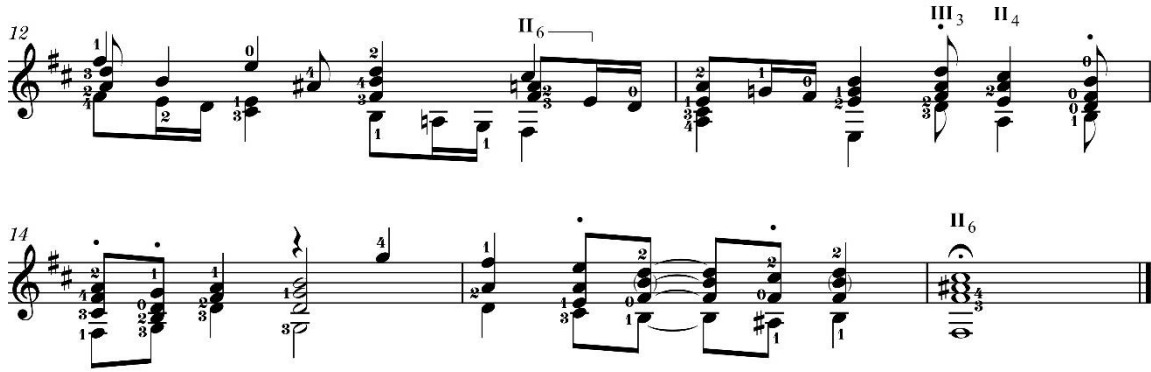


Figure 14. Ricercare No. 16, mm. 12–16 with Proposed Staccato Articulation.

Accents

Although accents are not written into the tablature, an understanding of lute technique provides clues as to what should be stressed. Much like the affinity classical guitarists have for the *i-m* alternation of right-hand fingers for plucking notes, lute players preferred to use *p-i*.⁵⁴ This choice has consequences, as “one (even without realizing it) imbues the pieces with an array of subtle accents and nuances that serve to enhance the performance of sixteenth-century works.”⁵⁵ The alternating of strong-weak accents is discussed in many early treatises for other instruments, not just for the lute.⁵⁶ MacEvoy compares the alternation of the thumb and index finger with the Renaissance “fingering guidelines for keyboard players in Tomás de Sancta María’s *Arte de tañer Fantasía...* (1565) or the strong-weak tonguing described for wind players by Sylvestro Ganassi in

⁵⁴ The right-hand finger designations are *p* – *pulgar* (thumb), *i* – *índice* (index), *m* – *medio* (middle), and *a* – *anular* (ring).

⁵⁵ Casey Fitzpatrick, “The (Controversial) Right Hand,” last modified July 13, 2019, <https://www.caseyfitzpatrick.com/lutenists-journal/2019/7/13/the-controversial-right-hand> (accessed 10 February 2020).

⁵⁶ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 7.

Opera Intitulata Fontegara (1535) and Richardo Rogniono in *Passaggi per potersi essercitare nel diminuire* (1592).”⁵⁷ MacEvoy adds that the movement of the hand and wrist when using thumb-index alternation creates an even greater accent because of the weight of the arm and hand.⁵⁸ This movement is much like up-and-down strokes with a plectrum.⁵⁹

The concept of strong-weak accents can get muddled when there are more complex textures that necessitate a particular right-hand fingering, which is common in the ricercari. Scale passages that have an even rhythm are the most illuminating example of the thumb-index alternation affecting the accent pattern of the music. Additionally, Rob MacKillop explains that, in this context, the alternation highlights the “harmony hidden within scales” by often stressing a triad, as can be seen in the example below.⁶⁰



Figure 15. Ricercare No. 24, m. 11, with Triads Highlighted by *P-I* Accents.

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*, 9.

⁵⁹ Paul O’Dette, “Paul O’Dette: Guitar Talks with Benjamin Verdery,” interview by Benjamin Verdery, *Guitar Talks*, 92nd Street Y, 3 November 2011, video, 30:58, <https://youtu.be/8sYdd1BSazA>.

⁶⁰ MacKillop, *Introduction to the Lute*, 11.

Guitarists are trained to remove the contrasts of each finger of the right hand so that each digit can be used without a difference in sound and volume; however, it is possible for guitarists to alternate scale passages with *m-i*, and to put more emphasis on the middle finger. Furthermore, guitarists can adopt the *p-i* alternation, but there is debate as to whether this is practical for most guitarists. It is not pragmatic to embrace this because players would need to change their playing technique dramatically. However, consideration of strong-weak accents can inform an interpretation without the need for new techniques or retraining the fingers. MacEvoy recommends players achieve a “fluttering smoothness in runs than on duplicating the strong-weak accents of Renaissance fingering.”⁶¹

Slurs

Slur indications are not present in the tablature of the *ricercari* or other works in the Renaissance.⁶² A slur can mean a variety of things depending on the instrument being played, but it is generally used to indicate multiple legato notes with one main attack. For plucked instruments, an ascending slur (sometimes referred to as “hammer-on”) is produced when the right hand plucks a note and a left-hand finger forcefully lands on a higher fret on the same string. A descending slur (“pull-off”) is instead created by the left-hand finger pulling and releasing the string, which sounds the lower note on the same string. The aural result of this is an accented plucked note paired with a deemphasized

⁶¹ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 10.

⁶² *Ibid.*, 7.

slurred note. A “very articulate sound, which would give you a lot of opportunity to crescendo and diminuendo,” was fashionable and can be seen in the many method books written during this period.⁶³ In an interview with Benjamin Verdery, Paul O’Dette states that a Renaissance lutenist would only use slurs in the trill ornament.⁶⁴ Baroque technique, however, supplemented the thumb-index alternation with left-hand slurs as well as adding more quick ornamentation that necessitated them.⁶⁵ Baroque era composers, like Sylvius Leopold Weiss (1687–1750), wrote slur markings with a curved line connecting two or more notes.⁶⁶

The addition of slurs in guitar transcriptions of Renaissance lute works is a contentious subject. They generally should not be used unless the technical advantage of slurring a passage is significant. O’Dette mentions that the late sixteenth-century sources for bowed instruments, like the viola da gamba and violin, state that “if you find very, very fast notes that you cannot play with individual bow strokes, then you can cheat by slurring them, but it was only reserved in the Renaissance for the fastest note values.”⁶⁷ There are some moments like these in the *ricercari* where slurs can also give a similar accented effect as does the *p-i* alternation.

⁶³ O’Dette, “Paul O’Dette: Guitar Talks.”

⁶⁴ *Ibid.*

⁶⁵ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 7.

⁶⁶ Michel Cardin, *The Slur Concept in the Late Baroque Lute Tablatures*, 1, https://www.slweiss.de/London_unv/an_6Appendix_3.pdf (accessed 10 February 2020).

⁶⁷ O’Dette, “Paul O’Dette: Guitar Talks.”

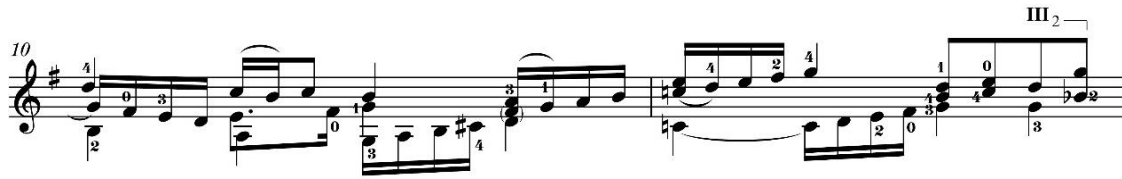


Figure 16. Ricercare No. 7, mm. 10–11 with Proposed Slurs.

Slurs are most commonly applied to fast notes in guitar music, usually to make them easier and more fluid. It is for this reason that slurs can be used sparingly in the performance of Renaissance lute transcriptions. Many teachers and players may urge that if a speed cannot be achieved without slurs, the player should decrease the tempo. The full context of a piece is necessary to evaluate, as one must weigh whether a tempo reduction in one passage, due to technical inability, is worth potentially making other passages undesirable. Regarding Ricercare No. 26, if the tempo is too slow, the beginning sounds strange; and if the tempo is faster, then the 32nd-note scale passage is arduous with no slurs. In the example below, adding two descending slurs to the 32nd-note run contributes dramatically to the playability of the section.

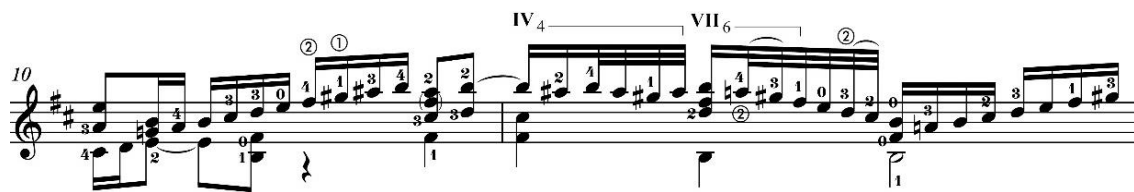


Figure 17. Ricercare No. 26, mm. 10–11 with Proposed Slurs.

Another application of slurs is to use them to aid in the right-hand preparation of four-note chords. These chords normally require all of the right-hand fingers to be used. If a quick note must be plucked using one of these fingers before the chord, then the

execution of the chord may be delayed. In the example below, a slur gives the right hand more time to prepare the fingers for the chord.



Figure 18. Ricercare No. 16, mm. 12–13 with Proposed Slurs.

Slurs can also be used in the written-out ornaments in the ricercari. Galilei uses lower mordents frequently throughout the work, usually to highlight a cadence. Adding a slur to these lower mordents helps the fluidity of the ornaments as well as putting more emphasis on the first note. That said, they should be plucked if the tempo allows for it.



Figure 19. Ricercare No. 7, m. 4.

Another example of potentially using slurs in the written-out ornamentation of Galilei is found in Ricercare No. 16. In measure 10, there is an extended ornament exclusively using the third string, ending with a quick 32nd-note turn. Again, turns were the one instance where lutenists would implement a slur.⁶⁸ In addition to the technical ease, the slurs in the ending figure of this measure allow the right hand to prepare the next four-note chord.

⁶⁸ O’Dette, “Paul O’Dette: Guitar Talks.”

use “thumb-under” technique, in which the thumb plucks the string underneath the index finger, there is space between the fingers and palm for the thumb to follow through to the subsequent string. Additionally, many lutenists use a right-hand angle that is parallel with the strings making for an ergonomic thumb rest stroke; at this angle, free strokes with the fingers are somewhat awkward. Thumb rest strokes also have a dual purpose of aiding in muscle memory and a heightened awareness as to the thumb’s positioning. Anchoring the little-finger also gives support for thumb rest strokes on the lute. Instead, on the guitar, a thumb-anchor on a lower string is sometimes employed to provide support for *i-m* rest strokes.

It is highly unlikely for a classical guitarist to adopt *p-i* alternation, let alone with thumb rest strokes. Nonetheless, the use of finger free strokes gives an impression of the desired timbre, particularly on the higher strings; free strokes produce a more airy, delicate character. Free strokes should generally be used throughout the *ricercari*, but there are some moments when rest strokes are desirable, such as when the texture is sparse. The opening of *Ricercare No. 18* serves as a good example because of its high-register melody line.

Arpeggiation of Chords (“Rolls”)

Chords can be rolled in different ways in the *ricercari* to add interest and variety.

A roll is a flourish of a chord with each note of a chord played separately. Ronn

McFarlane provides a list of how rolls can be musically employed:

- Highlight a melody note
- Bring out a particular inner voice
- Intensify a particular harmony

- Create a more lyrical, less percussive feeling for a section of a piece
- Give less stress to a chord
- Give more stress to a chord⁷¹

The speed of the separation should also be varied depending on the desired effect.

A fast roll can bring excitement to a chord, while a slow roll can give a “lyrical, caressing quality, and can help eliminate an overly percussive feeling.”⁷² A slow arpeggiation with a ritardando is especially compelling on the final chord of some of the ricercari. The concluding chord can also have varied intensity with a loud bass paired with a soft, slow roll of the higher register. A decrescendo can also be employed with a ritardando “until the last note is rendered with only a gossamer wisp of a tone.”⁷³ This is particularly effective in the ricercari that do not have an ornamented cadence or an active voice directly before the final chord, such as the final cadence in Ricercare No. 3.



Figure 21. Ricercare No. 3, mm. 21–24.

A Word of Caution Regarding Rolls

Some risks are present with rolling chords, the biggest being their overuse. Their efficacy is lost when they are played too often, as listeners may lose interest because of

⁷¹ Ronn McFarlane, “Rolling Chords,” *Lute Society of America*, 1, http://lutesocietyofamerica.org/resources/Documents/Pedagogical%20Articles/Beyond%20The%20Basics/BTB-06_Rolling-Chords.pdf (accessed 10 February 2020).

⁷² Ibid.

⁷³ Ibid.

the lack of variety. A common suggestion is not to perform consecutive rolls. With that said, the player should not just formulaically alternate between blocked and rolled chords. In the *ricercari*, Galilei will sometimes have many chords back-to-back, such as in *Ricercare No. 10*, for which I have provided suggested rolls in measures 4–5.



Figure 22. *Ricercare No. 10*, mm. 4–5 with Suggested Rolls.

It is important to not roll chords in sections that are too complex. When a chord is rolled, time is borrowed from the previous beat, with the highest note timed to arrive on the beat. If there is a quick note before a chord, then rolling may distort the rhythm and the pulse. Rolls are best used in more spacious measures. In the example of *Ricercare No. 24* below, the first chord is preceded by an eighth note (not pictured) so it may be rolled if the tempo is not too fast. Conversely, the chords on the second beat of measure 11 and the downbeat of measure 12 are preceded by quick sixteenth notes and therefore should not be rolled. This would interrupt the fluidity of the sixteenth-note scale run by giving the note before the chords more time value.



Figure 23. *Ricercare No. 24*, mm. 11–12.

Another risk of rolling chords is that the effect produced may not be desirable if the section is rhythmically driving. With the *ricercari*, and many other Renaissance

Some historical sources illuminate the style and use of vibrato on the lute and other period instruments. In 1542, German composer and music theorist Martin Agricola described how a “trembling” finger on the violin enhances the melody.⁷⁵ In 1636, lutenist Jehan Basset contributed to Marin Mersenne’s *Harmonie Universelle*, in which he refers to vibrato as *verre cassé* (broken glass).⁷⁶ Basset, like other early musicians, includes vibrato as an ornament, not to be continuously used. Basset comments that vibrato is not used much because it was used too often in the past.⁷⁷ This is a first-hand account of a vibrato “fashion swing” by a lutenist, suggesting that perhaps vibrato was used as an ornament by Galilei in 1584.⁷⁸ Referring to vibrato as “the sting,”⁷⁹ the English lutenist Thomas Mace confirms this trend in 1676 that it is “pretty and neat but not modish in these days.”⁸⁰ Notation for vibrato can be found in some lute tablature in the seventeenth century, including extensive use in the Italian Baroque guitar works of Ludovico Roncalli (*Capricci armonici sopra la chitarra spagnola*, 1692).⁸¹

⁷⁵ Frederick Neumann, “The Vibrato Controversy,” *Performance Practice Review* 4, no. 1 (Spring 1991): 19, <http://scholarship.claremont.edu/ppr/vol4/iss1/3> (accessed 10 February 2020).

⁷⁶ Wallace Rave, “Performance Instructions for the Seventeenth-Century French Lute Repertory,” in *Performance on Lute, Guitar, and Vihuela*, ed. Victor Anand Coelho (Cambridge: Cambridge University Press, 1997), 142.

⁷⁷ *Ibid.*

⁷⁸ Neumann, “The Vibrato Controversy,” 20.

⁷⁹ Other older English terms for vibrato include the “shake” and “close shake.”

⁸⁰ Thomas Mace, *Mustek’s Monument* (London: Ratcliffe & Thompson, 1676), 109.

⁸¹ Schneider, *The Contemporary Guitar*, 141.

So, should vibrato be used in Renaissance music? It seems that vibrato was used on the lute to a greater degree than in the mid-seventeenth century, judging by the early-Baroque writers' comments on it now being "out of fashion." MacEvoy states that modern players have discarded Romantic liberties when interpreting Renaissance lute music such as "lingering over a vibrato-shaped note in the melody."⁸² Basset recommends a "golden mean" between the extremes of not using vibrato and using vibrato for too many notes, calling each "deplorable."⁸³ I have a similar opinion to Basset; players should be mindful of when they are using vibrato, not using it continuously by default. In *Early Music America Magazine*, Judith Malafronte says the "vibrato matter has been laid to rest in favor of expression, personalization, and tolerance."⁸⁴

Vibrato, when used judiciously, can be a great way to add intensity to a leading tone or to add beauty to a lyrical melody, such as in the opening of *Ricercare No. 17*. Pitch vibrato has two factors, speed and range; various combinations should be used depending on the context. Generally speaking, a wide, slow vibrato works well in spacious, single-note melodies, while a narrow, fast vibrato better serves a melody in quicker passages such as in the final cadence of *Ricercare No. 25*.

⁸² MacEvoy, "The Renaissance Thumb-Under Lute Technique," 9.

⁸³ Neumann, "The Vibrato Controversy," 20.

⁸⁴ Judith Malafronte, "Vibrato Wars," *EMAg: The Magazine of Early Music America* (Summer 2015): 5, <https://www.earlymusicamerica.org/emag-feature-article/vibrato-wars> (accessed 10 February 2020).

Tone Color: Ponticello vs. Tasto

Making extreme tone color changes, such as from *ponticello* (by the bridge) to *tasto* (over the fingerboard), were not directly indicated in tablatures or mentioned in treatises during the Renaissance. However, the location of the little-finger anchor, suggested in method books at this time, provides clarity.

The anchoring of the little finger against the body of the guitar between the rose (soundhole) and the bridge is perhaps the only technique topic that is universally recommended by every lute treatise.⁸⁵ Also, in all of the lute iconography I have viewed, no players pictured have their right hand positioned to the left of the rose. In *The Burwell Lute Tutor* (1660), it is stated that “your hand must lie upon the belly of the lute with the little finger only, which must be as it were glued unto it.”⁸⁶ It also says that the hand should be between the rose and the bridge “but nearest to the bridge.”⁸⁷ This suggests a brighter, ponticello timbre and minimal movement of the right-hand position. Tasto playing was not desirable, conceivably due to the lightly-strung instrument needing additional volume and brightness achieved by playing closer to the bridge. Further, the anchor provides support for the instrument that would be lost by physically moving towards the fingerboard.

⁸⁵ Fitzpatrick, “The (Controversial) Right Hand.”

⁸⁶ Elizabeth Burwell and John Rogers, *The Burwell Lute Tutor*, ed. Robert Spencer (ca. 1660–1672; repr., Leeds: Boethius Press, 1974), 23.

⁸⁷ *Ibid.*

When playing Renaissance lute works, the guitarist should reign in the possible tone colors created by different playing location of the right hand. The range should be over the soundhole to an inch before the bridge. Most importantly, the changes in tone color must be slight and subtle.

Lute Technique

It is worth mentioning that, like during the Renaissance, modern lutenists do not all play the same way, whether it be their use or lack of use of a right-hand angle adjacent to the string, a “pinky” anchor, nails, or thumb-under technique.⁸⁸ Modern players play “modern (replica) instruments, built with modern tools, and with modern strings,” so it may be acceptable to play with a modern technique.⁸⁹ Additionally, Renaissance lute treatises often differed on technique and would ambitiously attempt to teach the complete beginner rather advanced material such as music theory and counterpoint, like in Galilei’s *Fronimo*. To make up for this, the authors would often make inflexible rules so beginners would not be confused with a more nuanced approach. MacEvoy provides an example:

All the tutors, for instance, in order to get across the need to sustain voices in a polyphonic composition, no more than tell the lutenist to hold down notes with the left hand until he is forced to release them to finger a new note, a rule he must keep, according to the [Vincenzo] Capirola manuscript, “like a maxim of Aristotle.”⁹⁰

⁸⁸ Fitzpatrick, “The (Controversial) Right Hand.”

⁸⁹ Ibid.

⁹⁰ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 5.

This idea is not sustainable in many lute works because of fingering considerations and unnecessary dissonance resulting from sustaining notes that more than likely should not be sustained. Still, a careful reading and analysis of these treatises illuminates techniques and articulations that were often used that may influence the way guitarists play lute works.

Iconography

Lute technique can be informed by iconography, but Andrea Damiani warns that “one must be careful because these images are too easily interpreted; some depict parties and celebrations in which the posture represented is casual, rather than the correct position for serious study or performance.”⁹¹ The pear-shaped back of the lute, in particular, makes the lute somewhat unwieldy compared to the flat back of the guitar. This resulted in many different playing positions depending on the player and the instrument used. In contrast, the guitar’s sitting posture is more or less standardized with the guitar resting on a raised left leg or with one of the many commercial devices made today that mimic this posture (“ErgoPlay,” “Gitano,” “Dynarette,” etc.).

Left Hand

Largely, left-hand lute technique remains the same as modern classical guitar technique.⁹² Many guitar players, especially in folk, blues, and rock genres, may be

⁹¹ Andrea Damiani, *Method for Renaissance Lute*, trans. Doc Rossi (Rome: Ut Orpheus Edizioni, 1998), 15.

⁹² MacKillop, *Introduction to the Lute*, 3.

surprised to learn that lute players in the sixteenth century often had their left-hand thumb over the neck of the lute.⁹³ Despite the thumb being above the neck, the writer has not found any instance or reference to the thumb being used to play bass notes, as is popular with some modern playing styles.

Right Hand: Thumb-Under Technique

The right-hand posture on the lute is dramatically different than classical guitar posture, primarily because of the thumb-under technique used on the lute. Renaissance lutenists paired this technique with a right-hand angle adjacent to the strings, but during the Baroque-era lutenists favored the thumb-over technique because of the increased number of courses.⁹⁴ The rise in intricate, polyphonic lines that necessitated index and middle alternating also contributed to the growth of thumb-over technique. Modern guitarists still prefer this right-hand posture of thumb-over.

Galilei used the popular thumb-under technique in which the thumb is between the fingers and palm. This technique demands the player have a right-hand angle that is almost adjacent to the strings. This angle paired with the flesh tone results in a warm tone that, according to MacEvoy, “brings to mind with a new meaning all the Renaissance metaphors for the lute’s tone as gentle, sweet and soothing.”⁹⁵ Fitzpatrick contends that

⁹³ Ibid.

⁹⁴ Fitzpatrick, “The (Controversial) Right Hand.”

⁹⁵ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 6.

some lutes were lightly strung and that this warmth was unachievable with thumb-over.⁹⁶ Further, plucking with the thumb-over technique at a 45-degree angle would potentially result in some courses clashing with each other as they are plucked.

The thumb-under technique, as well as a right-hand angle adjacent to the strings, should mostly be avoided when playing lute transcriptions on the modern guitar. However, the player should experiment and evaluate how this posture might give subtle accents and a rounder tone that can be replicated using the player's existing technique. Fitzpatrick adds that how the string is prepared and attacked is the most influential to tone production. "This is what makes a lute sing regardless of what technique one uses to achieve it."⁹⁷

Right Hand: Nails

A significant difference in playing the lute, versus the guitar, is the use of nails by modern guitarists. Most lutenists likely did not use nails because of the need to sound a course of two or more strings without having multiple attacks that might result if nails are used. Before plucking, guitarists plant (prepare) their fingers between the nail and the flesh. On the lute, this kind of preparation with nails is not conventional because of the distance between the strings of a course. Lutenists prepare by feeling both strings under the flesh of the finger before plucking.

⁹⁶ Fitzpatrick, "The (Controversial) Right Hand."

⁹⁷ Ibid.

Playing guitar without nails gives a more mellow sound with more bass frequencies but a much softer dynamic range. Beginning in 1952, famed guitarist Julian Bream performed on the lute with nails in a classical guitar sitting position. He would play both the guitar and lute as part of a single program; therefore, it was essential to use a similar technique. I recommend guitarists be consistent in how they maintain the length and shape of their nails so that it becomes a familiar “feel” when playing guitar transcriptions of lute works. This allows the effortless incorporation of lute music into a classical guitar program.

Right Hand: Little-Finger Anchor

During the Renaissance, lutenists would anchor their little finger on the body of the guitar below the treble strings. This technique may seem strange to some modern classical guitarists, but many players of popular genres, like rock and folk, plant their little finger in plectrum styles and fingerstyle (while rarely plucking with the ring finger). The anchored little finger not only provides support but also helps develop consistent muscle memory, particularly helping the thumb when changing to different strings. The little finger can pivot, while remaining attached, to assist the thumb in accessing the lower courses. Muscle memory is established through repetition; having the little finger anchored minimizes the movement of the hand vertically and horizontally, making for fewer variables. Fitzpatrick asserts that anchoring the little finger is perhaps the most conclusive technique with unanimous Renaissance lute-treatise authors advocating it.⁹⁸

⁹⁸ Fitzpatrick, “The (Controversial) Right Hand.”

However, with the little finger anchored, the function of the ring finger—with which it shares a tendon—is considerably hindered. This consideration likely led to the ring finger not being used during the Renaissance except to play the highest note of a chord of four or more voices. The renowned Classical-era guitarist and educator Fernando Sor anchored his little finger and wrote about the topic in his method for guitar.⁹⁹ This possibly led to Sor’s preference of only using the ring finger whenever necessary. He mentions that he removes the anchor when it is no longer advantageous.¹⁰⁰

With evidence of the pervasive use of the anchored little finger by lutenists and guitarists from the sixteenth century through the nineteenth century, this technique has some merit to stabilize the right hand, support the instrument, and develop muscle memory. However, there are significant disadvantages to adopting this technique: The development of the raised fretboard on the modern guitar was perhaps the primary justification for removing the anchor. The little finger cannot comfortably rest on the body of the guitar as the strings are much further away from the soundboard. Another concern is the tension that results from pressing with the little finger and the limitations it imposes on the ring finger, which is in frequent use for modern classical guitar repertoire. Continuous pressure from the little finger fatigues the right hand, particularly when used with modern hand positioning and thumb-over technique. Additionally, the little-finger anchor affects the vibration of the soundboard, resulting in a reduced volume. As an alternative, the thumb can be anchored on lower strings when not in use to give the hand

⁹⁹ Fernando Sor, *Méthode pour la guitare*, trans. A. Merrick (London: Robert Cocks, 1832), 33.

¹⁰⁰ *Ibid.*

stability and assist in developing muscle-memory. Lastly, anchoring the little finger discourages moving the hand horizontally to achieve *tasto* and *ponticello* tone colors.

Capotasto

The use of a capotasto (capo) is an option to consider when playing the *ricercari* as well as other Renaissance lute works. Originally a synonym for the nut on a fretted instrument, the modern capo is used as a moveable device to press the strings at selected frets.¹⁰¹ Essentially, a capo is a bar coupled with a mechanism that pushes it against the fingerboard. A capo shortens the length of the strings to transpose the guitar higher without needing fingering changes.

Together with the lowered third-string, the use of a capo replicates the tuning of the six courses of the lute used in *Fronimo*. It is thought that the pitch of the lowest course “G” originates from the Greek letter *Gamma*, which is the lowest note in Greek music theory. These pitches are nominal (in name only) because they were not standardized as they generally are today with A=440. During the Renaissance, the size and the limitations of gut strings were the main factors used to determine the pitch standard for a particular instrument.¹⁰²

In his article “History of Musical Pitch,” Alexander Ellis provides a table showing how pitch has gradually raised over time.¹⁰³ The research was carried out largely through

¹⁰¹ Ian Harwood, “Capo *tasto*,” *Grove Music Online* (accessed 10 February 2020).

¹⁰² Koonce, *The Renaissance Vihuela and Guitar in Sixteenth-Century Spain*, 8.

¹⁰³ Alexander Ellis, “History of Musical Pitch,” *Nature* 21 (April 1880): 553–554, <https://doi.org/10.1038/021550a0> (accessed 10 February 2020).

the study of surviving pitch pipes and organ pipes. This can be deceptive since organ pipes were tuned by hitting the end of an organ pipe into a cone. Tuning an organ pipe many times resulted in the end of the pipe becoming frayed and needing to be trimmed. This trimming shortened the pipe—raising its pitch in the process.

Despite not having a pitch standard in 1584, the capo at the third fret on the guitar facilitates playing the examples in *Fronimo* without having to transpose while reading the accompanying text. With a capo, guitarists typically use music that is not transposed when reading notation and tablature. The guitar transcription provided is a performance edition, not a scholarly edition; therefore, the lowest open string is E instead of G. Lutenist Paul O’Dette recommends that guitarists place the capo at the second fret, as this transposition lies better on the fingerboard, especially if fret dots are on the instrument.¹⁰⁴ With this capo position, the relationship of even- and odd-numbered frets are left intact.

A capo also facilitates playing by reducing the usable scale length of the guitar. With this, stretches become smaller because of the increasingly shorter distances of the higher frets. Furthermore, a capo on the second or third fret more closely simulates the scale length of the most popular lute design that was used during Galilei’s time. That being said, some lutes have a similar scale length to that of a modern guitar, and the size of Galilei’s lute is unknown.¹⁰⁵ Galilei used the more popular, standard lute because of the challenging stretches in some passages, as well as his disdain for variations to the lute

¹⁰⁴ O’Dette, “Paul O’Dette: Guitar Talks.”

¹⁰⁵ MacKillop, *Introduction to the Lute*, 7.

design (little frets, additional courses, etc.).¹⁰⁶ According to Rob MacKillop, using a capo removes some of the bass resonances of the guitar, lending it a more “transparent” sound that is often associated with the lute.¹⁰⁷

Tempo

Renaissance sources often allude to tempo reflecting the body’s pulse, which Ephraim Segerman suggests is not without psychological reason.¹⁰⁸ Hearing is the first sense fully developed in the womb, where the sound of the mother’s heartbeat is constant.¹⁰⁹ A pulse is usually within 60–80 bpm, but the question is what rhythmic value should the beat be assigned.¹¹⁰ “Lancfranco (1533) explains that the tactus is “governed by a healthy pulse”; Segerman points out that it is ambiguous whether this is one or two pulses indicated.¹¹¹ Regarding the *ricercari*, this tempo range fits with two pulses for each tactus; otherwise, many passages would be too fast for most players. Some of the *ricercari* work best at a tempo slower than this tempo range to achieve the desired mood.

¹⁰⁶ Galilei, *Fronimo*, 155–158.

¹⁰⁷ MacKillop, *Introduction to the Lute*, 7.

¹⁰⁸ Ephraim Segerman, “Tempo and Tactus after 1500,” in *Companion to Medieval and Renaissance Music*, ed. Tess Knighton and David Fallows (Berkeley: University of California Press, 1997), 338.

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*, 341.

The *ricercari* do not include tempo indications. Renaissance lute composers often did not notate tempo, leaving it to the “performer’s common sense and intuition.”¹¹² Not all lute and vihuela composers omitted tempo in their tablature. Luis Milán used tempo instructions in text similar to modern notation use.¹¹³ Other Spanish vihuelists Luis de Narváez, Alonso Mudarra, and Enríquez de Valderrábano use symbols to represent the tempos. Historical sources and the musical context of a piece can inspire interpretive choices.

The musical content should be considered when choosing a tempo. In some *ricercari*, a tempo that is too slow may not allow the performer to sustain some notes for their full values. The rate of harmonic change also influences tempo choices, as slow harmonic changes paired with a slow tempo can be uninteresting. Furthermore, complex music played with a fast tempo can potential not be understood by the listener. Ronald Dale Oliver stated that “complex music may necessitate a somewhat slower tempo than simple, straightforward music to ensure that all the intricacies in the score may be given ample attention and treatment.”¹¹⁴ Contrapuntal rhythmic relationships may also be lost if a fast tempo is chosen.¹¹⁵ In measures 8–10 of *Ricercare* No. 25, the bass and treble

¹¹² Tristan d’Avignon, *Making the Transition from Guitar to Lute*, 9, <http://stdionysius.lochac.sca.org/collegeprojects/guitartolute.pdf> (accessed 10 February 2020).

¹¹³ Luis Milán, *El Maestro*.

¹¹⁴ Ronald Dale Oliver, “An Anthology of Renaissance Vocal Literature Suitable for High School Choirs” (PhD diss., Texas Tech University, Lubbock, 1996), 132, TTU DSpace Repository (accessed 10 February 2020).

¹¹⁵ *Ibid.*

voices interweave at rhythmically irregular moments that require a modest pace to be appreciated.

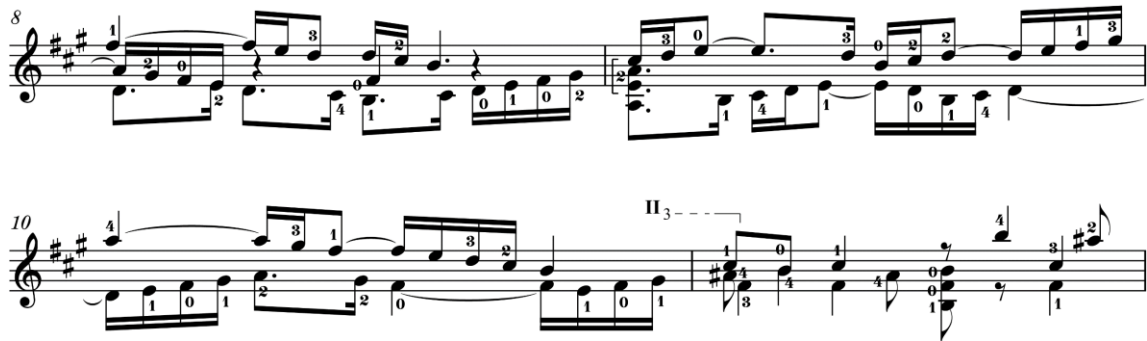


Figure 25. Ricercare No. 25, mm. 8–11.

Technical ability should also be taken into account when choosing a tempo. Quick rhythms, shifts, and chord changes can be impossible at a tempo that is too brisk. It is essential to consider one's own abilities when choosing a tempo, but Segerman writes that it is also vital to consider the playing ability at the time before speed became a significant part of lute technique.¹¹⁶ In *L'Harmonie universelle* (1636), Marin Mersenne stated that 16 notes per second was around the top speed possible; this would be sixteen 32nd notes per half-note beat at 60 bpm.¹¹⁷ Quick adjustments of hand configurations can limit the tempo chosen as well. In measure 14 of Ricercare No. 25, rapid chord changes are paired with shifts to make a quite demanding passage that must be weighed when choosing a tempo.

¹¹⁶ Segerman, "Tempo and Tactus after 1500," 342.

¹¹⁷ *Ibid.*



Figure 26. Ricercare No. 25, m. 14.

Establishing a tempo based on the acoustic environment is frequently not considered until a performance is already underway. When there is little reverberation in a room, a slow tempo may not be effective because the sound dies quickly. On the other hand, a reverberant room can require a more leisurely tempo as fast-moving harmonies could sound muddled. Harpsichordist Wanda Landowska stated that “knowing the right tempo is a matter of guess-work; history and tradition are merely railings: they prevent you from getting lost, without necessarily indicating the true road.”¹¹⁸ Nevertheless, the players must decide for themselves, based on the above factors joined with their creativity.

Tempo Alterations

Tempo alterations within a work elude many modern performers. MacEvoy points out that multiple sources show a largely unchanging pulse; for example, paintings of a leader of an ensemble beating the tactus, or instructions by German lutenist Hans Newsidler to keep a steady rhythm.¹¹⁹ In 1979, MacEvoy wrote that players have

¹¹⁸ Wanda Landowska, “The Performance and Interpretation of Josquin’s Masses,” in *Josquin des Prez: Proceedings of the International Josquin Festival-Conference* ed. Edward E. Lowinsky (London: Oxford University Press, 1976), 640.

¹¹⁹ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 9.

generally discarded Romantic interpretations, deciding against “lingering over a vibrato-shaped note in the melody, contrasting phrases at different tempos and tonal colors, and dividing phrases with broad accelerandos and ritardandos.”¹²⁰ That said, in the context of the improvisatory genre of the ricercare, subtle tempo alterations can be effective when used in moderation.

The most frequently used tempo alteration is the ritardando, or the gradual slowing of tempo. All the ricercari end with a fermata, which MacEvoy says “suggests a more flexible rhythmic rendering.”¹²¹ This is an idea for interpretation, not a rule, as some of the ricercari could be played with a forceful character through the final cadence. Tempo can also be delicately slowed in the middle of a work with “a slight ritard at cadences where the slackening of the tempo is compensated by the increased rhythmic activity of a cadential ornament.”¹²² The cadential ornament preferred by Galilei is the lower mordent, which marks many of the cadences throughout the set. In *A Performer’s Guide to Renaissance Music*, Adam Knight Gilbert recommends thinking of the delayed downbeat of the tactus like a person stopping to think for a brief moment and then continuing as before.¹²³ The final cadence of Ricercare No. 17 is a moment that benefits from an extreme broadening of the tempo to highlight the peculiar cadence of VII in first

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² Ibid.

¹²³ Adam Knight Gilbert, “Rehearsal Tips for Instrumental Ensembles” in *A Performer’s Guide to Renaissance Music*, ed. Jeffery T. Kite-Powell (Bloomington, Indiana University Press, 2007), 268.

inversion leading to the tonic. If not prepared with a ritardando, the cadence would sound confusing.



Figure 27. Ricercare No. 17, mm. 20–23.

The use of rubato is another elusive topic in regard to playing Renaissance music. Many feel that the player should strictly adhere to the tactus. Frederick Neumann comments that “though valuable as a rough reference point, the tactus was variable in practice and far from stable as some believe to have been.”¹²⁴ However, Neumann does add that vocal ensembles did use an unchanged tactus because “tempo fluctuations prompted by the expressive needs of one voice are bound to conflict with similar needs of the simultaneous, independent voices.”¹²⁵ Solo lute music could be played more freely; for example, Galilei’s intabulations could be played with rubato, while the original vocal works likely did not. The downbeat of the tactus stays intact, while the material inside the barline can fluctuate subtly. Further, Paul O’Dette explains that “if you stretch in one place, you have to make up the time in order to get to the next downbeat in time.”¹²⁶

¹²⁴ Neumann, *Performance Practices*, 16.

¹²⁵ *Ibid.*, 21.

¹²⁶ Paul O’Dette, “Renaissance Performance Techniques with Paul O’Dette,” interview by Christopher Morrongiello, *Lute Society of America Quarterly* (Nov. 1990), 25.

Tempo alterations should be used in the performance of Renaissance lute works to breathe life into the music. These fluctuations should be subtle, particularly if they are not at a cadence. MacEvoy asserts that frequently *ricercari* are too rhythmically free even though the playing technique used suggests evenness.¹²⁷ “Since the thumb was alternated with the fingers wherever possible, the rhythmical movement of the arm it creates should not be dismissed as purely incidental.”¹²⁸ I agree that the first beat of the *tactus* should remain intact, but *rubato* can be used within. O’Dette states that lutenists need to play with “more personality” and *rubato* can help assuage this need.¹²⁹

Metric Accent

Many musicians confuse accent to be an element of meter, but music theorist Paul Creston describes accent as a component of rhythm as it does not change the “measurement of duration.”¹³⁰ Often, musicians think meter determines the accents with the first beat being the strongest. Koonce uses the waltz, sarabande, and mazurka as examples in the same meter with different accent patterns, with the latter two not being the first beat.¹³¹ With that said, Galilei often stresses the first pulse with a denser texture.

¹²⁷ MacEvoy, “The Renaissance Thumb-Under Lute Technique,” 9.

¹²⁸ *Ibid.*

¹²⁹ O’Dette, “Renaissance Performance Techniques,” 24.

¹³⁰ Paul Creston, *Rational Metric Notation: The Mathematical Basis of Meters, Symbols, and Note-Values* (Hicksville, NY: Exposition Press, 1979), 4.

¹³¹ Frank Koonce, “Rhythm vs. Meter,” 1, <https://www.frankkoonce.com/articles/RhythmVsMeter.pdf> (accessed 10 February 2020).

In addition, the majority of cadence resolutions in the ricercari land on the first beat; however, resolutions on the second pulse are not uncommon. There are a couple of exceptions of syncopated resolutions, notably in measure 11 in Ricercare No. 26 with a resolution on B minor on the off-beat of the first pulse.

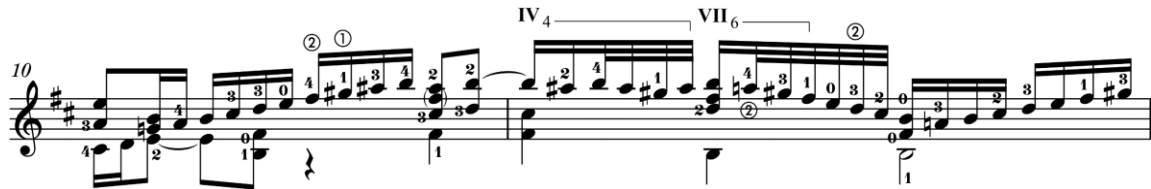


Figure 28. Ricercare No. 26, mm. 10–11.

Syncopation

Galilei occasionally makes use of syncopations in the ricercari, giving the music a dance-like quality. A syncopation occurs when an accented or emphasized note goes against the established metrical pattern. The most striking examples of syncopation in the ricercari are Galilei's use of repeated chords. The beginning of the first ricercare features a syncopation using a repeated A major chord, perhaps to make for an assertive opening to the set of ricercari. In this example, the first pulse of measure 2 is not stressed. Instead, the repeated chord is syncopated and emphasizes the subsequent off-beat F-sharp minor chord.



Figure 29. Ricercare No. 1, mm. 1–2.

Another example of Galilei using repeated syncopated chords is in measure 18 of Ricercare No. 12. Here, these chords highlight the E-Major chord on the second pulse of

the measure. Unlike the syncopation in *Ricercare No. 1*, this moment is preceded by an ample amount of time with the established metrical pattern.



Figure 30. *Ricercare No. 12*, mm. 16–18.

CONCLUSION

This guitar transcription of “26 Ricercari” from Vincenzo Galilei’s 1584 edition of *Fronimo* provides players with an introduction to Galilei’s style of writing for the lute, as well as a systematic sampling of each Renaissance mode. It also is the first guitar transcription of this important work into modern staff notation, and therefore may also provide an impetus for other solo instrumentalists and ensembles to adapt and perform.

Through this discussion, transcribers may achieve a more fluid and presentable transcription. Musicologists and music theorists that are not adept at reading and transcribing tablature into modern notation may benefit from the recommendations given in this paper. Additionally, the playing suggestions may inspire historically-informed interpretations for those who wish to perform lute music as authentically as possible on modern instruments. Lastly, I hope that more lute music by Galelei and other Renaissance musicians will be transcribed for the guitar to make this repertoire more accessible for performers and listeners.

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APPENDIX A

GUITAR TRANSCRIPTION OF “26 RICERCARI”

26 RICERCARI

arr. John Oeth

Vincenzo Galilei

Ricercare del primo tuono per duro, No. 1 in B Dorian

③ = F#

II₄ II₆ II₆

5 II₆ II₄ II₆ I₆ II₆

9 II₆ II₆ II₅ II₄

13 II₆ II₄

18 II₅

21 II₆ II₆

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DZ 3418

Ricercare del secondo tuono per duro, No. 2 in A Hypodorian

4

8

12

15

19

22

III₄

V₄

III₆

I₃

DZ 3418

Ricercare del terzo tuono per duro, No. 3 in C# Phrygian

The image displays a musical score for a piece titled "Ricercare del terzo tuono per duro, No. 3 in C# Phrygian". The score is written in treble clef with a key signature of two sharps (F# and C#). The piece is in a Phrygian mode, which is characterized by a half-step between the second and third degrees of the scale. The score consists of seven staves of music, each containing a single melodic line with various ornaments and fingerings. The first staff begins with a measure marked "II 6". The second staff starts at measure 4 and includes a measure marked "II 4". The third staff starts at measure 7 and includes a measure marked "II 5". The fourth staff starts at measure 10 and includes a measure marked "II 6". The fifth staff starts at measure 13 and includes a measure marked "I 6" and another marked "II 6". The sixth staff starts at measure 17 and includes a measure marked "II 6". The seventh staff starts at measure 21 and includes a measure marked "II 6". The score concludes with a double bar line at the end of the seventh staff.

DZ 3418

Ricercare del quarto tuono per duro, No. 4 in E Hypophrygian

1
4
7
9
11
14
17

III₄
III₆ V₄ III₆ V₂ I₃ III₆
III₄ I₃ III₄
I₂ III₄ V₄
III₄ III₅ V₄ III₄ III₆ V₆
I₃ III₄ I₆ III₆ I₂ I₃
III₆

① ② ③ ④ ⑤

DZ 3418

Ricercare del quinto tuono per duro, No. 5 in C Lydian

5

9

13

17

22

27

DZ 3418

Ricercare del sesto tuono per duro, No. 6 in D Hypolydian

The image displays a musical score for a piece titled "Ricerca del sesto tuono per duro, No. 6 in D Hypolydian". The score is written in a single system with a treble clef and a key signature of three sharps (F#, C#, G#). The time signature is 2/4. The piece consists of 30 measures, with measure numbers 5, 8, 11, 15, 19, 23, and 27 indicated at the beginning of their respective lines. The notation includes various rhythmic values (quarter, eighth, and sixteenth notes), rests, and accidentals. Fingerings are indicated by numbers 1-4 below the notes. The score is annotated with figured bass symbols: II₆, II₄, V₂, II₅, I₂, III₃, III₆, and II₂. A circled number 5 is present at the end of the second line. The piece concludes with a double bar line at the end of the eighth line.

DZ 3418

Ricercare del settimo tuono per duro, No. 7 in D Mixolydian

1
4
7
10
12
15
18

II₄
II₄ V₃ III₂
III₂
II₂ III₃ III₆
II₄ II₄
VII₆ III₆

DZ 3418

Ricercare del ottavotuoono tuono per duro, No. 8 in E Hypomixolydian

1

4

7

10

13

16

20

II₆

II₄

II₄

II₆

II₄

II₅

II₄

DZ 3418

Ricercare del nono tuono per duro, No. 9 in C# Aeolian

II₆ II₄ II₄ II₅

5 II₄ II₄

9 II₆ II₅ IV₆

13

17 II₆ II₄

21

25 II₄ II₄ I₄

DZ 3418

Ricercare del decimo tuono per duro, No. 10 in F# Hypoaeolian

II 6

I 6--1 II 6

4

II 6

II 4

II 6

II 6

7

II 4

II 5

II 4

10

II 6

12

14

II 6

II 6

I 6--1

II 6

DZ 3418

Ricercare del undecimo tuono per duro, No. 11 in A Ionian

II 4

II 6

II 4

II 4

II 5

II 4

DZ 3418

Ricercare del duodecimo e ultimo per duro, No. 12 in E Hypoionian

1
4
7
10
13
16

II 5
II 4
II 6 II 4
II 4 II 6 II 3
II 6 II 4 II 4

DZ 3418

19 II_6 IV_6 II_4 II_4 II_6 IV_4

22 IV_4 II_6 II_5

24 I_6 II_6

Detailed description: The musical score consists of three staves of music. The first staff (measures 19-21) shows a sequence of chords: II_6 , IV_6 , II_4 , II_4 , II_6 , and IV_4 . The second staff (measures 22-23) continues with IV_4 , II_6 , and II_5 . The third staff (measures 24) shows I_6 and II_6 . The notation includes various chord voicings, melodic lines with fingerings (e.g., 4, 3, 2, 1, 0), and accents (e.g., 3, 4, 2, 1, 0, 7, 3, 4, 3, 2, 1).

DZ 3418

Ricercare del primo tuono per molle, No. 13 in D Dorian

5

8

12

15

18

I₂

I₃

III₄

I₂

III₅

I₂

I₃

I₃

I₆

III₅

V₆

III₆

III₆

DZ 3418

21 III_4 I_3 III_2 III_2 V_6

25 I_2

28 II_4 III_4 V_6

31 V_2 I_3 I_3

34 III_3 III_6 III_6

37 I_3 III_4

DZ 3418

Ricercare del secondo tuono per molle, No. 14 in E Hypodorian

3 III₅ III₆ V₆ VII₆

5 V₂ III₂ V₆

7 V₆

9 II₅ III₆

11 III₆

13 II₆ III₆ II₅

DZ 3418

Ricercare del terzo tuono per molle, No. 15 in E Phrygian

The image displays a musical score for a piece titled "Ricerca del terzo tuono per molle, No. 15 in E Phrygian". The score is written in a single system with a treble clef and a 4/4 time signature. It consists of six staves of music, each containing a series of chords and melodic lines. The notation includes various chord symbols such as V₃, I₃, III₄, and V₆, which likely refer to specific voicings or positions on the guitar. The music is characterized by a mix of whole, half, and quarter notes, with some passages featuring triplets and sixteenth notes. The overall style is that of a lute or guitar piece, given the use of chord symbols and the phrasing. The score is numbered 1, 4, 7, 10, 13, and 16 at the beginning of each staff, indicating measure numbers. There are also circled numbers 5, 3, and 4 within the score, possibly indicating specific techniques or fingerings. The piece concludes with a final chord on the sixth staff.

DZ 3418

19

V₆

④

22

V₄

25

④

28

V₃

V₂

④

DZ 3418

Ricercare del quarto tuono per molle, No. 16 in F# Hypophrygian

The musical score is written for a single melodic line on a treble clef staff. The key signature is one sharp (F#), and the mode is Hypophrygian. The piece is divided into seven measures, each starting with a measure number (2, 4, 6, 8, 10, 12, 14). The notation includes various fingering numbers (1-4) and articulation marks (accents, slurs). Above the staff, Roman numerals indicate the fingerings for specific notes: II₆, IV₄, II₄, III₃, III₆, III₃, and II₆. The piece concludes with a double bar line and repeat dots.

DZ 3418

Ricercare del quinto tuono per molle, No. 17 in G Lydian

1

4

7

11

14

17

20

II₂

II₆

III₆

II₅

II₄

III₃

II₄

DZ 3418

Ricercare del sesto tuono per molle, No. 18 in F Hypolydian

②

③

5

8

11

14

17

V₂

III₂

III₄

I₆

I₆

I₃

VI₃

III₄

I₃

III₅

I₅

I₆

I₃

III₅

I₅

I₆

I₃

I₃

DZ 3418

19

21

23

25

DZ 3418

Ricercare del settimo tuono per molle, No. 19 in A Mixolydian

The image displays a musical score for a piece titled "Ricercare del settimo tuono per molle, No. 19 in A Mixolydian". The score is written in treble clef with a key signature of one sharp (F#) and a 2/4 time signature. It consists of seven staves of music, each beginning with a measure number: 1, 4, 7, 9, 11, 14, and 16. The notation includes various rhythmic values (quarter, eighth, and sixteenth notes), rests, and accidentals. Fingerings are indicated by numbers 1-4 below the notes. Bar lines are present throughout. Specific performance markings include "II₄" and "II₆", which likely refer to lute fret positions. The piece concludes with a double bar line at the end of the seventh staff.

DZ 3418

Ricercare del ottavotuo per molle, No. 20 in G Hypomixolydian

1

4

7

10

13

16

I₃

III₃

I₂

III₄

I₃

I₆

I₃

III₄

III₄

V₄

III₄

III₂

III₆

DZ 3418

Ricercare del non tuono per molle, No. 21 in B Aeolian

III₆

II₄

II₄ III₆ II₅

II₂

III₆ III₆

III₆

DZ 3418

Ricercare del non decimo per molle, No. 22 in A Hypoaeolian

④

5

9

13

16

19

22

V₂

III₄

V₄

I₂

III₆

II₄

I₆

III₄

I₃

I₆

DZ 3418

Ricercare del undecimo tuono per molle, No. 23 in C Ionian

III₅ III₆ III₆

V₃ V₄ III₃ I₃

I₂ III₄ VIII₄

III₆ III₅ I₃ III₄ III₅

V₄ I₆ III₆ I₂

III₅

III₅ III₅

III₆ V₄ III₅ I₂ III₆

DZ 3418

Ricercare del duodecimo e ultimo tuono per molle, No. 24 in Hypoionian

III₆

4

6

9

11

II₄

II₃

DZ 3418

Altro Ricercare del primo tuono per duro, No. 25 in B Dorian

The image displays a musical score for a piece titled "Altro Ricercare del primo tuono per duro, No. 25 in B Dorian". The score is written in B Dorian mode and consists of seven staves of music. The notation includes treble clefs, a key signature of two sharps (F# and C#), and a 4/4 time signature. The music features complex rhythmic patterns, including sixteenth and thirty-second notes, and various fingerings indicated by numbers 1-4. Bar numbers 1, 4, 6, 8, 10, 12, and 14 are clearly marked. Above the staff, several figured bass notations are present: II₆, II₅, III₂, II₃, VII₆, VII₆-V₂, III₂, III₃, II₆, II₆, and VII₆. The piece concludes with a double bar line at the end of the seventh staff.

DZ 3418

Altro Ricercare del duodecimo tuono per molle, No. 26 in D Hypoionian

The image displays a musical score for a lute piece. It consists of seven staves of music, each starting with a measure number (1, 4, 6, 8, 10, 12, 14). The key signature is D major (two sharps). The notation includes various rhythmic values, accidentals, and fingering numbers (1-4, 0). Above the staves, there are several figured bass annotations: III₃, II₃, IV₄, VII₆, II₄, III₆, II₅, III₆, and III₃. Some of these figures are accompanied by circled numbers 1 and 2. The music is written in a single melodic line on a treble clef staff.

DZ 3418

APPENDIX B

FACSIMILE OF THE TABLATURE OF "26 RICERCARI"

Ricerca del primo Tuono per $\frac{3}{4}$

This section contains musical notation for the first ricercare. It features a treble clef and a 3/4 time signature. The notation includes a series of rhythmic stems (vertical lines) above the staff, followed by a staff with notes and rests. Below the staff, there are several lines of lute tablature, consisting of numbers 0-5 on a six-line staff.

This block shows the beginning of the second ricercare. It features a treble clef and a 3/4 time signature. The notation includes rhythmic stems above the staff, followed by a staff with notes and rests, and a line of lute tablature below.

Ricerca del secondo tuono per $\frac{3}{4}$

This section contains musical notation for the second ricercare. It features a treble clef and a 3/4 time signature. The notation includes rhythmic stems above the staff, followed by a staff with notes and rests, and a line of lute tablature below.

This block shows the continuation of the second ricercare. It features a treble clef and a 3/4 time signature. The notation includes rhythmic stems above the staff, followed by a staff with notes and rests, and a line of lute tablature below.

This block shows the continuation of the second ricercare. It features a treble clef and a 3/4 time signature. The notation includes rhythmic stems above the staff, followed by a staff with notes and rests, and a line of lute tablature below.

Ricerca del terzo tuono per $\frac{3}{4}$

This section contains musical notation for the third ricercare. It features a treble clef and a 3/4 time signature. The notation includes rhythmic stems above the staff, followed by a staff with notes and rests, and a line of lute tablature below.

ff **ff** **ff** **ff**

ff **f** **f** **ff** **f**

Ricercare del quarto tuono per $\frac{4}{4}$

ff **ff** **ff**

f **f**

ff **fff** **ff** **f** **f** **f**

Ricercare del quinto tuono per $\frac{4}{4}$

ff **fff** **fff** **f** **f** **f**

ff **ff** **f** **ff** **f**

ff **ff** **f** **ff** **f** **ff** **ff** **ff**

Ricercare del sesto tuono per $\frac{4}{4}$

Ricerca del settimo tuono per $\frac{4}{4}$

Ricerca del ottavo tuono per $\frac{4}{4}$

Ricerca del nono tuono per $\frac{4}{4}$

Ricerca del terzo tuono per b.

Ricerca del quarto tuono per b.

Ricerca del quinto tuono per b.

Ricerca del sesto tuono per b.

Ricerca del settimo tuono per b.

Ricerca del ottavo
tuono per b.

First system of musical notation for the eighth tone search. It consists of two staves with various notes and rests. Above the staves are several vertical bar-like symbols representing chords or specific notes.

Ricerca del nono
tuono per b.

First system of musical notation for the ninth tone search. It consists of two staves with various notes and rests. Above the staves are several vertical bar-like symbols representing chords or specific notes.

Second system of musical notation for the ninth tone search. It consists of two staves with various notes and rests. Above the staves are several vertical bar-like symbols representing chords or specific notes.

Ricerca del deci-
mo tuono per b.

First system of musical notation for the tenth tone search. It consists of two staves with various notes and rests. Above the staves are several vertical bar-like symbols representing chords or specific notes.

Second system of musical notation for the tenth tone search. It consists of two staves with various notes and rests. Above the staves are several vertical bar-like symbols representing chords or specific notes.

Ricerca dell'undecimo tuono per b

Musical notation for 'Ricerca dell'undecimo tuono per b'. The score consists of four systems of three staves each. The notation includes rhythmic flags (vertical lines) above the staves and various numerical figures (e.g., 0, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) placed below the staves, representing a figured bass or lute tablature. The first system includes a treble clef and a common time signature.

Ricerca del duodecimo, & ultimo tuono per b.

Musical notation for 'Ricerca del duodecimo, & ultimo tuono per b.'. The score consists of two systems of three staves each. It features rhythmic flags and numerical figures similar to the first piece. The notation is dense with figures and flags, indicating complex rhythmic patterns.

Altro Ricercare del primo tuono per a

Musical notation for 'Altro Ricercare del primo tuono per a'. The score consists of two systems of three staves each. It includes rhythmic flags and numerical figures. The notation is similar in style to the other pieces on the page, using a figured bass or lute tablature system.

This image shows a handwritten musical score consisting of seven systems of staves. Each system contains three staves, likely representing different parts of an ensemble or a single instrument with multiple voices. The notation is highly rhythmic and includes various symbols such as circles, vertical lines, and numbers (e.g., 4, 2, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9). Dynamic markings like 'f' (forte) and 'ff' (fortissimo) are present throughout the score. The notation appears to be a form of shorthand or tablature, possibly for a stringed instrument like a guitar or a keyboard instrument. The overall style is that of a working draft or a composer's sketch.