I, Sera Cheon, hereby submit this original work as part of the requirements for the degree of Doctor of Musical Arts in Violoncello.

It is entitled:
Scordatura Tuning in Performance and Transcription:
A Guide Using Domenico Gabrielli’s Seven Ricercari for Violoncello Solo

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Scordatura Tuning in Performance and Transcription:
A Guide Using Domenico Gabrielli’s Seven Ricercari for Violoncello Solo

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Abstract

In the seventeenth century, the modern tuning of the cello, C-G-d-a, gradually replaced others as standard, winning out over older tunings, including, B-flat-F-c-g. However, the Bolognese makers who reinvented the cello in the 1660s—wiring gut strings with copper wire and creating a smaller cello capable of greater pressure—, also used a new tuning, C-G-d-g (Italian tuning). While this tuning did not catch on in the rest of Italy or Europe, and even in Bologna, died out by the end of the century, several composers, including Giovanni Gabrielli employed it in their solo cello works. Gabrielli’s Seven Ricercari (1689) is one of the first works for solo cello and it was written in Italian tuning. Most modern editions notate these pieces in modern tuning, and alter chords and other passages that are difficult or impossible to play. However, with a good transcription, Italian tuning is quite feasible for the modern player; it allows for all the notes as Gabrielli intended and creates a slightly different sound for the cello, which fits this music nicely. For this reason, this document advocates for the use of Italian tuning (now called a scordatura tuning) and provides a transcription of these pieces and a guide for performers who wish to transcribe other pieces originally in Italian tuning.
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Chapter I

Introduction

In the last half of the seventeenth century, the violoncello enjoyed a period of development that influenced many changes to its use and repertoire. The early Baroque instrument—in Italy usually called a violone—was larger than later incarnations, usually measuring between 76 and 80 centimeters in body length. It had anywhere from three to six strings and was called by a variety of different names, but four strings was the most common version and the term violone the most used name.¹ The violone was primarily utilized in the capacity of a basso continuo instrument, in which the bass line was played along with a keyboard or strummed instrument. The strings were gut strings, usually from sheep, and the sound emitted was dark, soft, and warm. In the 1660s, string makers in Bologna began to wind wire (typically copper or silver) around the gut, an innovation that profoundly changed the quality, sound, and

even use of the instrument. While gut strings were still employed for the upper two strings, the wire-wound gut string became normal for the lower strings, an arrangement that would continue until the nineteenth century when steel strings replaced gut. While temperature and humidity still affected their tuning, and although the sound of the wire-wound gut strings would still be softer and lighter when compared to their modern counterparts, these strings had a major advantage over earlier gut strings.\(^2\) They were stronger and could handle more tension while being shorter than their predecessors. This innovation led to a smaller instrument called the violoncello, which co-existed with the violone as an alternative until Antonio Stradivarius’s instruments in the first decade of the eighteenth century standardized it as the normal size.\(^3\)

The Baroque cello would be the prevailing instrument until the late eighteenth century when further changes were made including the following: the neck was redesigned with a greater angle from the body, the fingerboard extended, the bridge made higher, and inside the cello, the bass bar and the sound post were both made thicker and stronger. The use of the endpin and steel strings would be developments that occurred towards the end of the nineteenth century.

The starting point of the structural differences between the Baroque cello and the modern one is the angle of the neck, which lies straighter in the Baroque cello, almost parallel to the instrument. This feature creates a smaller angle of the fingerboard in relation to the body of the cello as well as a lower height to the bridge. Thus, compared to the modern cello, the Baroque instrument has less capacity for tension in the strings; it also has a thinner sound post and shorter


\(^3\) Elizabeth Cowling, The Cello (New York: Charles Scribner’s Sons, 1983), 47.
bass bar as needed. All of these aspects create a softer, warmer, and more rounded sound.

Drawing upon an analogy of different light sources, Mark Vanscheeuwijk contrasts the sound of two cellos in the following way:

I would personally liken the sound of the Baroque cello to the warm glow of candle-light, and that of the modern cello to a clearer, more focused beam of electric light. Both are equally beautiful in their own way and when used in the proper context, but they are different.

The Baroque bow was also different. Shorter and lighter than the modern bow, the Baroque bow has a more convex shape, which creates less tension with the bow hair than the concave shape of the modern bow. This design allows the Baroque bow to express fast passages with a quick motion and light pressure, rather than powerful sustained sounds. There were two kinds of bow grip: an underhanded grip similar to that used for the gamba, and an overhanded grip similar to the modern one, with the difference being that the player places his/her hand further up on the stick rather than the frog. The grip also affects playing, and with this latter bow grip, rapid passages can be played lightly with relative ease.

Another difference between the two instruments concerns the use of the endpin. Though the endpin for the cello was developed in the Seventeenth century, it was not commonly used until the late nineteenth century. Baroque players typically placed their instrument between their

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5 Ibid., 117.


7 Judy Tarling, Baroque String Playing for Ingenious Learners (St. Albans England: Corda Music Publications, 2001), 86.
calves. In his treatise on cello playing, *Methode, théorique et pratique Pour Apprendre en peu de temps le Violoncello dan sa Perfection* (Theoretical and practical method for learning the violoncello and its perfection) from 1741, Michel Corrette (1707–99) describes proper posture in detail. Maurice Winton Riley summarizes these instructions thusly:

He directs the student to seat himself on a chair or stool of suitable height so that he can hold the instrument without sitting too far forward. The violoncello is to be placed between the fleshy portions of the thighs. The neck of the violoncello is placed in the left hand and leaned slightly toward the left side. The violoncello’s body should be held upright and head erect. The feet are to be turned out, never inward. The instrument should not touch the floor as this would deaden the tone.

This last sentence is especially important. The tone created without an endpin “grounding” the instrument to the floor is one that is more airy and with a blended resonance. Further, this posture makes the cello more vertical, enables the arms to move freely, and facilitates fast and light passages.

An early composer to take advantage of the capabilities of the new violoncello was the Bolognese musician, Domenico Gabrielli (1659–90), an accomplished cellist who studied composition with Giovanni Legrenzi (1626–90) in Venice and Petronio Francheschini (1651–80) in Bologna. He was a cellist in the San Petronio Orchestra in 1680 and became president of the Accademia Filarmonica in 1683. He also served as violoncello soloist in the chapel of San Petronio from 1680 to 1687. His nickname “Winghino dal violoncello (Dominic of the

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8 Maurice Winton Riley, “The Teaching of Bowed Instruments from 1511 to 1756” (PhD diss., The University of Michigan, 1954), 118.

Violoncello)” asserts his reputation as an artist of the first caliber.¹⁰

Gabrielli is generally credited with the first solo compositions for the cello and, unlike his contemporaries who employed the instrument almost exclusively in the continuo, Gabrielli wrote many obbligato parts for it in his operas and other vocal music, as well as instrumental music such as his (trio) sonatas. For example, concertante duets between trumpet and cello occur frequently in his trumpet sonatas in addition to the cello’s normal role in the basso continuo.¹¹

Among his solo cello works, especially important are the seven Ricercari composed in 1689, which constitute some of the earliest works in the solo cello literature.¹² This set comes about thirty years prior to the most famous solo cello pieces of the Baroque, J. S. Bach’s Six Suites for unaccompanied cello, composed during his tenure in Cöthen, (1717–1723). In his Ricercari, Gabrielli explored a wide range of compositional and performance techniques that were difficult or impossible with the violone, such as fast-running sixteenth sequential figures, double stops and broken chords. Further, Gabrielli’s much greater utilization of the middle and lower registers also exploited the capabilities of the new, smaller cello as a solo instrument. While the lower strings on a violone were more suited to slow moving note values than fast passages, the


¹² In his dissertation, Kinny claimed that Giovanni Battista Degli Antoni’s 12 Ricercate (the composer’s spelling) composed in 1687 were actually the earliest solo cello works; See Kinny, 193; However, the violin part of this work has been found and stored at the Estense Library under Mus. D. 9, proving that it was not for solo cello but a duet for the violin and cello; See Vanscheeuwijck, “Prefazione,” in Domenico Gabrielli, Ricercari per violoncello solo, ed. Marc Vanscheeuwijck, (Bologna: Arnaldo Forni Editore, 1998), 11.
Bolognese instrument produced a clear, resonant tone in this register, a feature of which Gabrieli took advantage.

Gabrielli’s choice of genre was unusual. A Ricercar was most often a strict imitative piece, not for bowed instruments, but for lutes or keyboard instruments; however, Gabrielli’s are non-imitative, improvisation-like pieces approaching toccatas or preludes. The Ricercari were not published in his lifetime, but were compiled in a manuscript that was probably intended as a didactic work for a student. This manuscript is mus. G. 79, now housed at the Biblioteca Estense in Modena. It contains the Ricercari along with a canon and a sonata. Three handwritings are evident but none match the handwriting in other manuscripts (of operas) believed to be Gabrielli’s own. One scribe provided the scores for the first six Ricercari and the canon. At the top of the first piece, this individual titled the set, “Lezione di D.° G.° à di 15 Genaro 1689” (Lessons of D[omenico] G[abrielli] on the 15th day of January 1689). Another scribe wrote the words “Ricercar Primo” on top of the original title and continued this numbered scheme on the subsequent pieces. A third scribe added the seventh Ricercar and the sonata but left them untitled. Several miscellaneous scribal mistakes can be found through the manuscript; however, in Ricercar 5 a more significant mistake is noteworthy. This piece in common meter has continuous eighth notes throughout, but in the fifth measure, there is a total of twelve eighth notes. Bettina Hoffmann assumes that this measure is probably how it was in the original and out

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of respect for the composer the scribe left it intact. She also argues that use of the word “lesson” locates this collection at least at first as a didactic work and that the manuscript was created for private use and possibly made by one of Gabrielli’s pupils. Gabrielli’s ricercari are through composed and in numbers, 2, 6, and 7, sections are divided by meter changes.

The tuning of these pieces has created problems for modern cellists. The nature of the intended instrument has been questioned. Edmund Straeten asserted that a five-string cello with C-G-d-g-d was used for Domenico Gabrielli’s seven ricercari. In his 1975 edition for Schott Music, the editor, Dieter Staehelin allowed for the possibility that the pieces were composed for either five-stringed cello with C-G-d-g-d’ tuning or a four-stringed cello with C-G-d-g tuning. However, Marc Vanscheeusijck, in his edition of the manuscript published by Arnaldo Forni Editore in Bologna in 1998, argued that while the five-string cello was popular in Germany, there is no evidence of its use in Italy at this time. Using a four-stringed cello, Gabrielli employed a kind of tuning that was important in Bologna at this time, often referred to as “Italian” tuning, as well as “scordatura” tuning today. While the normal tuning system for the cello is

15 Hoffmann, 39.
16 Ibid., 39.
18 Marc Vanscheeusijck, 11.
19 Scordatura literally means “mistuned” and there were many different tunings that can be considered as such. According to Mark Chambers, however, “The ‘Italian tuning’ was a late seventeenth-century convention that had regional acceptance and use in Modena and Bologna. . . . In its original performance context the tuning was considered ‘normal,’ but for the modern cellist it is not standard and therefore must be approached as a ‘mistuning’ or ‘implied’ scordatura.” Mark Chambers, “The Mistuned Cello: Precursors to J.S. Bach’s Suite V in C Minor for Unaccompanied Violoncello” (DMA diss., The Florida State University, 1996), 25.
C-G-d-a, Italian tuning calls for the top string to be tuned down one whole step resulting in C-G-
d-g.

![Traditional tuning](image1.png) ![Italian tuning](image2.png)

This tuning creates a different string tension and sonority than its modern counterpart, allows for
chordal playing that is much more difficult or impossible with modern tuning, and must be
transcribed when performed in modern tuning.²⁰ Because of the lowered top string, a
transcription of the score is needed if a cellist is to perform the Ricercari in Italian tuning.

Twentieth-century editions, which usually discuss issues of scordatura tuning in
introductory material, have generally deemed transcriptions unnecessary and have simply altered
music (i.e., certain chords) that is impossible in modern tuning. A case in point is Dieter
Staehelein’s edition for Shott Music (1975). He provides alternatives in the appendix for the
chords as in m. 67 of Ricercar 6 where he notated the low D and E notes an octave higher so that
the top three strings could be used. In m. 71 of Ricercar 7 he also allows for a low G to be played
instead of g to avoid awkward string crossings. Later editions have taken similar approaches.
Transcriptions do exist for some of the Ricercari. Mark Chambers appended a transcription of
Ricercar 6 in his doctoral treatise “The ‘Mistuned’ Cello: Precursor’s to J. S. Bach’s Suite V in C
Minor for Unaccompanied Violoncello.” Bettina Hoffmann, the editor of the Bärenreiter edition

²⁰ Mark Chambers, “Introducing Scordatura to the Intermediate Cellist: Gabrielli’s Ricercares for Solo
Cello Revisited,” American String Teacher 47, no 2 (Spring 1997): 37.
(2001) also included both scores in modern tuning and scordatura tuning for the sixth and seventh Ricercari. However, there are currently no transcriptions for the first five Ricercari.  

The purpose of this document is to provide a transcription of Gabrielli’s seven Ricercari, to explore the benefit of applying scordatura (in this case Italian) tunings in Baroque cello music and to serve as a guide for cellists in preparing their own transcriptions of these and other pieces. It will also draw from and contribute to the scholarship on these pieces. There are several important scholarly discussions on Gabrielli’s Ricercari. In his dissertation, Gordon J. Kinney provides historical background and the stylistic features of the pieces and analyzes the formal type and key structure of each. Brian Carter’s focus is more on the issues of performance practice as he provides an application of leading string treatises, including Bartolomeo Bismantova’s *Compendio Musicale* (1677), among others, to Gabrielli’s Ricercari. Many scholars have dealt with Scordatura tuning. Brent Wissick’s article is a good introduction to the subject as he presents the origins and surveys its use in the music of Antonio Bononcini (1677–1726) and his contemporaries. Gabrielli is discussed in connection with Scordatura tuning. Though his main focus is on twentieth-century use of this tuning, Nathan Cook discusses important precursors including Gabrielli. He also provides suggestions for reading and producing scordatura transcriptions that will be helpful for the current study, though he does not discuss Gabrielli’s *Ricercari* in this regard. Perhaps, the most important work on the topic is Mark Chambers’ dissertation, “The Mistuned Cello: Precursors to J. S. Bach’s Suite V in C Minor for

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21 Brian Carter provides a score of ricercar primo with fingering in his own handwriting that corresponds to Italian tuning, see Brian Carter, “An Examination of Sources as they Pertain to Domenico Gabrielli’s First Ricercar for Violoncello Solo,” *Internet Cello Society Tutti Celli* 14, no 1 (January–February 2009), http://www.cello.org/Newsletter/Articles/gabrielli/gabrielli.htm (accessed 9 January 2012).
Unaccompanied Cello,” which deals extensively with Gabrielli among many other composers. Chambers provides much information on the proper techniques and the benefit of using scordatura tuning. A smaller, “how-to” guide aimed towards students who wish to explore Gabrielli’s Ricercari can be found his article, “Introducing Scordatura to the Intermediate Cellist: Gabrielli’s Ricercares for Solo Cello Revisited.”

In chapter two, the development of violoncello tuning in the late seventeenth century will be discussed, then a study comparing the Ricercari performed in the Italian tuning as opposed to modern tuning will follow. Especially relevant are differences evident in chordal playing, fingering and string crossing, the general tone of the cello in regards to each tuning, and the more specific “tonal” concerns, including sympathetic resonance and the overtone series.

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Chapter II

Various Seventeenth-Century Tunings and a Comparison of Italian and Modern Tuning

Tuning in the seventeenth century

Cello tuning has a rather complicated history that coincides with the development of the instrument in the seventeenth century. Before the advances were made in the 1660s in Bologna, the cello’s predecessor, the violone, was tuned in many different ways. However by the 1650s, two tunings had emerged as the most prevalent: B-flat-F-c-g, and C-G-d-a.

Bb-F-c-g (violone)  
\[ \begin{array}{c}
\text{\textbf{Bb}} \\
\text{\textbf{F}} \\
\text{\textbf{c}} \\
\text{\textbf{g}}
\end{array} \]

C-G-d-a (Normal tuning)  
\[ \begin{array}{c}
\text{\textbf{C}} \\
\text{\textbf{G}} \\
\text{\textbf{d}} \\
\text{\textbf{a}}
\end{array} \]

The first of these, sometimes called church tuning or large bass tuning, probably comes from the most common sixteenth-century tuning of the three-string violone, F-c-g.\(^{23}\) Among its merits is

\(^{23}\) Martin Agrocola first described the three stringed bass violin which tuned to F-c-g in his *Musica instrumentalis deutscher* in 1529; see Robin Stowell, *The Cambridge Companion to the Cello* (Cambridge: Cambridge University Press, 1999), 9, 236.
that it allowed for the entire family of violins (the treble, alto, and tenor, and bass (violone) to be tuned by the same g pitch. This tuning was also logically ideal because it created a relationship of a fifth between the lowest strings of each instrument.\textsuperscript{24}

\[
\begin{align*}
\text{Bb} & \rightarrow \text{F} \rightarrow \text{c} \rightarrow \text{g} \quad \text{(Bass violin)} \\
\text{F} & \rightarrow \text{c} \rightarrow \text{g} \rightarrow \text{d} \quad \text{(Tenor violin)} \\
\text{c} & \rightarrow \text{g} \rightarrow \text{d} \rightarrow \text{a} \quad \text{(Alto violin: viola)} \\
\text{g} & \rightarrow \text{d} \rightarrow \text{a} \rightarrow \text{e} \quad \text{(Treble violin)}
\end{align*}
\]

However, this tuning was out of fashion by the late seventeenth century as its low B-flat open string caused problems in ensemble playing. The last extant set of pieces using it in Italy is Domenico Gali’s twelve sonatas for unaccompanied violoncello (1690).\textsuperscript{25} The other prominent seventeenth-century tuning, now considered to be “modern tuning,” emerged sometime around the late sixteenth and early seventeenth centuries. In this tuning, each string is one whole tone higher than in the church tuning. By raising the low Bb up to C, the whole violin family, except the tenor violin which no longer exists in the modern string family, now shared three open strings in common pitches: G, D, and A. Also, the violone was tuned like the alto violin (viola) but an octave lower.\textsuperscript{26} While it took over a century for this tuning to become the normal tuning of the violone (and later the cello), Monteverdi’s \textit{L’Orfeo} (1607) was an early major work that specified its use.

The Bolognese cello makers who had newly designed the instrument in the 1660s also

\textsuperscript{24} Kinney, 67.
\textsuperscript{25} Ibid.
\textsuperscript{26} Stowell, 9.
employed a tuning, C-G-d-g, different than both the increasingly archaic church tuning and modern tuning. It was the standard tuning in that city, as well as Modena, for sometime, while, as their violoncello spread to other cities such as Rome, Venice and beyond, it was generally tuned C-G-d-a. Naming this tuning can be problematic. Brent Wissick asserts that its use was limited to Bologna and so calls it Bolognese tuning.\(^{27}\) Mark Chambers, who is most interested in its modern application, calls it Italian tuning and says that modern cellists must approach it as a mistuned tuning, or scordatura.\(^{28}\) As these names are only relevant in connection to “competition” from other tunings, and thus applied later, both “Italian tuning” (as there were no other prominent tunings by this time), and “scordatura” are sufficient, but it is important to note that it was not a scordatura tuning to the Bolognese cello makers, but rather their standard tuning.

Wissick makes this point very clearly. He argues that this tuning did not originate from C-G-d-a tuning, merely lowering the top string g, but rather was—like its counterpart, “modern” tuning—derived from raising the Bb-F-c-g (church tuning) tuning in the three lower strings:\(^{29}\)

The Bolognese tuning is arguably a raised alteration of the old B-flat tuning rather than a scordatura of C tuning with a lowered top string. The invention of covered strings encouraged a general move toward higher tunings on smaller instruments that still had a full bass quality. It makes sense that initially the familiar violone gut g string on top was retained while the bottom three strings were raised a tone, resulting in a tuning of two fifths and one fourth.

As it is an important distinction that this tuning not be considered mistuned, but rather an


\(^{29}\) Wissick, 7.
original alternate to that which became modern tuning, but as “Italian” has been used more commonly than “Bolognese,” for the purpose of this document, “Italian” will be used to distinguish this tuning from others.

While the exact reasons for this tuning choice by the Bolognese are open to speculation, two motivations might have been that this tuning makes transfers from Gamba music to the violoncello easier than “normal” tuning, and that, especially with gut strings, less pressure at the top led to fewer breakages.\(^{30}\)

Bolognese composers such as Domenico Gabrielli (1659–90), Giuseppe Torelli (1658–1709), and Benedetto Marcello (1686–1739), among others composed numerous works in this tuning during the 1670s, 80s and 90s. While for them it was normal tuning, by the end of the century, it was going out of style and Bolognese composers were adopting “modern” as their standard as well. Thus, as early as 1697, Luigi Taglietti applied Italian tuning specifically as a scordatura of C-G-d-a tuning in his *Suonate da manera a tre due Violoni, e Violoncello con alcune aggiute à Violoncello Solo*, Op. 1. This set contains eight capriccios for violoncello solo and the score indicates the scordatura by giving an incipit of C–G–d–g. One of the last examples of Italian tuning—at least until a resurgence in the twentieth century—is J. S. Bach’s Solo Suite No. 5 in C Minor (BWV 1011) composed in 1720, during his years as Capellmeister for the royal court of Prince Leopold in Anhalt-Cöthen in 1717–1723. This suite has enjoyed a different career in modern publication than other scordatura pieces including Gabrielli’s. While the autograph was lost, four manuscripts, one by Anna Magdalena Bach, one by Johann Peter Kellner, and two

\(^{30}\) Kinney, 70.
anonymous, all survive in transcriptions of scordatura tuning. Several nineteenth-century editions included both scordatura transcriptions and scores for modern tuning, a trend that ceased for a while in the twentieth century but has returned of late.  

Because of his prominence, several writers in their discussions of scordatura tuning have focused on Bach’s fifth suite. Three in particular, Michelle Claire Dube, Nathan Cook, and Mark Chambers all observe the application of scordatura tuning from a modern performer’s perspective through the lens of this piece. They also provide reasons for its neglect among modern players. In her dissertation, “Prelude of Suite V for Solo Cello by J. S. Bach: Options for performances,” Dube explains that normal tuning which creates much more string tension and a more powerful sound is more conducive to large concert halls. Cook’s “Scordatura Literature for Unaccompanied Violoncello in the 20th Century: Historical Background, Analysis of Works, and Practical Considerations for Composers and Performers,” postulates several reasons why most modern performers do not utilize scordatura tuning. He says that some performers hesitate to apply Italian tuning because of the difficulty in maintaining the tuning. The altered string, especially, goes out of tune quickly, because the cello is accustomed to and balanced within normal tuning, and it takes time for the altered string to “seat” and be stable. For this issue, Cook suggests carrying extra strings since the altered string gets worn easily by tuning back and forth.


33 Nathan Cook, “Scordatura Literature for Unaccompanied Violoncello in the 20th Century: Historical Background, Analysis of Works, and Practical Considerations for Composers and Performers” (DMA diss., Rice University, 2005), 40.
between normal and Italian tuning. A second reason he gives is that some players think that the scordatura tuning breaks the balance of the string tension and characteristic sonority of the cello. Mark Chambers counters this argument by pointing out that the sonority created by scordatura tuning will be the unique characteristic of composers that wrote for it.

“Mistuning” enabled composers to explore the potential of unique harmonic relationships and timbral colours created by intervally altered strings and altered string tensions.

Nathan Cook also suggests that cellists might be afraid scordatura tuning will harm the instrument in some way, maybe even damage or move the sound post. Cook recalls luthier Peter Shaw’s opinion that this argument is a baseless guess and that there is no evidence that scordatura setting affects the sound-post or the instrument itself.

Mark Chambers points out in his treatise “The Mistuned Cello: Precursors to J. S. Bach’s Suite V in C Minor for Unaccompanied Violoncello” that the lack of scordatura pieces in the repertoire in the last two hundred years has made this tradition foreign to modern cellists:

Scordatura was not only a logical and expedient compositional device, but also a natural one. In 1720 scordatura had been accepted and widely employed in the music of lute, guitar, viols, and violin for almost two hundred years. The lack of familiarity with this technique on the part of modern cellists is chiefly responsible for the perceived negative aspects of scordatura use today.

While scordatura tuning originated in the sixteenth century and flourished until the mid-

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34 Ibid., 112.
36 Cook, 113
eighteenth century, it was out of fashion during the classical and romantic eras, until Zoltán Kodály brought it back in his sonata for violoncello solo, Op. 8 in 1915.

Chambers, quoting from the prefaces of four different editions of Bach’s fifth suite, highlights the differing opinions that have existed on this subject. For instance, Ede Banda argued that the Italian tuning is inappropriate or unnecessary with the modern cello and steel strings:

In Bach’s time catgut strings were exclusively used, the softness of which resulted in a nice chordal sound. The metal strings of our days are less suitable for the purpose. The C minor suite is notated therefore in the present edition according to the usual tuning of the violoncello.

On the opposite end of the spectrum, Edmund Kurtz insisted that Italian tuning is more beneficial than its modern counterpart and said that it is the only solution when performing this suite. He only included the Italian tuning score in his scholarly edition. As he mentioned:

Suite V Bach composed for a Violoncello with the A string downtuned to G. There is no problem to play this Suite as it is written. Bach wrote it with the unorthodox tuning in mind, and many chords and other passages could not be played unless the A string is downtuned. In my opinion, there is no alternative, therefore I do not include in this edition another version for a normally tuned


39 Schumann’s piano quartet, Op. 47 is an exception: The low C goes down to Bb to create a drone for a few measures at the end of the third movement, however, the performer should retune the string to C before starting the forth movement; See I-Chun Chiang, “A Historical Technique from a Modern Perspective: The Transcription Scordatura in Mozart’s Sinfonia Concertante for Violin, Viola, and Orchestra in E-flat Major, K. 364” (DMA diss., University of Cincinnati, 2010), 11; See also Cook, 44.


Kurtz’s position is somewhat extreme, and most recent editions contain scores for both Italian and normal tunings and leave it to the performer to decide. For Chambers, however, scordatura tuning was not alternative to their Baroque composers but original and so should be considered more carefully.

**Comparison of Italian and modern tuning using Gabrielli’s *Seven Ricerciari***

In examining Gabrielli’s ricercari, there are various benefits to using Italian tuning in performance. First, several chords for Ricercari 6 and 7 present in the manuscript are either entirely impossible or very difficult in standard tuning. The c-e-g chord in m. 68 and the b-d-g chord in mm. 67 and 69 of Ricercar 6 are only playable when the top g is played with an open string. In his 1975 edition for Shott Music, Dieter Staehelin provides alternatives in the appendix for the chords. An example is in m. 67 of Ricercar 6 where he notated the low D and E notes an octave higher so that the top three strings could be used. Bettina Hoffmann also gives alternatives for the same chords by simplifying the chords to double stops by omitting the middle d and e.^[42]

**Ex 1) Ricercar 6, m. 67**

Original Chord

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For the c-e-g chord in m. 77 in ricercar 7, Staehelin wrote the bass c note an octave lower so that the chord can be playable in third position.

Ex) Ricercar 7, m. 77

But with scordatura tuning the original chords are easily played.
Secondly, the use of scordatura tuning greatly affects choices of fingerings and string crossings, and as Kinney points out, Italian tuning, in general, facilitates easier fingerings with less string crossings in certain passages.\(^{43}\)

It simplifies the fingering of scale passages across the two upper strings so that, as on the viol, they can be played without shifting—a distinct advantage, especially in passages involving the note a-flat.

Kinney’s assessment is accurate in regards to Gabrielli’s Ricercari. For instance, Ricercar 2, being in Am, contains many leading-tone g#s, as does the middle sections of the third Ricercar, which is in A, and the A-flats of Ricercar 4’s E-flat section. Especially when the G# is approached as a neighbor (i.e., from the higher A as is frequent in Ricercar 2), these passages in standard tuning require either shifting of the left-hand position or string crossings both of which are unnecessary in Italian tuning.

The following example (Ricercar 2, mm. 29–31) demonstrates that in modern tuning many more string crossings are required. The Roman numerals indicate the corresponding strings.

Ex) Ricercar 3, mm. 29–31

With normal tuning

\(^{43}\) Kinney, 70.
With Italian tuning

As is evident, in normal tuning, the first g# (m. 30) would be played on the d string. Then a string crossing is necessary to perform the next four eighth notes on the A string. The next e requires a brief return to the d string that immediately crosses back to the A string to present a note for the last beat. Counting the downbeat of this measure, four string crossings occur. In measure 31, the first four pitches are a (I) - g# (II) –a (I) – g (II), resulting in three string crossings played in this measure. Therefore in two measures a total of seven string crossings appear when modern tuning is used. The use of scordatura tuning, however, creates far simpler results. Here, the g#s can stay on the A string from the beginning of m. 30 until the e appears. Then, the player will cross to the A string to perform a and the first four notes of m. 31. A further string crossing will not happen until the f on the last beat of the measure. In this same passage, in scordatura tuning, only three string crossings are needed.

Also, the successive double stops in m. 71 of Ricercar Seven can be played on the two upper strings without any string crossing or awkward fingering in the scordatura tuning. On the other hand, a performer would have to jump to the lower string to perform the second double stop in normal tuning. Staehelin allowed the alteration of a low G to be played instead of g to avoid awkward string crossings, but again this playing is easily facilitated in the original tuning.
A passage in the first Ricercar, mm. 26–28, presents a similar difference between the two tunings. Playing in first position—the position preferred in Baroque performance practice—with modern tuning would require five string crossings to perform eight notes which alternate between g and a: g(II) – a(I) – g(II) – a and b(I) – g(II) – a and b(I). The other option is that the player uses third position in this tuning, so that no string crossings are needed. In the Italian tuning, this passage is playable in the first position of the G string without any string crossings because every note can be played on the A string.

Ex 5) Ricercar 1, mm. 26–28

With normal tuning
With Italian tuning

![Italian tuning staff](image)

Thus, this passage like many others is once again much simpler in Italian tuning.

The increased amount of playing in the first position is one of the major strengths in using the Italian tuning, even as it concerns string crossings. For instance, in m. 7 of Ricercar 4, the player would be able to play the passage with no string crossings in modern tuning, but s/he would have to play in the third and fourth positions (otherwise, the alteration of bb(I) – ab(II) – bb(I) – ab(II) would create very awkward and busy string crossings and fingerings). On the other hand, by using Italian tuning one brief and simple string crossing (and back) allows for the player to remain in first position.

Ex 6) Ricercar 4, m.7

With normal tuning

![Normal tuning staff](image)

With Italian tuning

![Italian tuning staff](image)
The opposite issue also comes into play as sometimes string crossings are used as a tool of musical expression. This affect occurs in the Ricercari. For instance, from m. 45 to m. 53 in Ricercar 7, each sixteenth note involves string crossings in Italian tuning. These successive string crossings create a more ringing sound with increased animated movements. However, sometimes the string crossings are not possible in normal tuning and so the two related sixteenth notes would be presented on the same string.

Ex 7) Ricercar 7, m. 49–50, in Italian tuning transcript

In mm. 49–50, especially, the performer should alternate between the d and a strings in Italian tuning. However in normal tuning, all four notes, e and g in m. 49 and d and g# in m. 50, share the d string, and so the delightful repetition of string crossings would not appear.

A third benefit to the utilization of Italian tuning lies in the effect it has on the overall sonority. The Italian tuning, with its lowered top string, creates a different string tension than its modern counterpart, and this aspect translates into different sound qualities. As Brent Wissick explains, “The Bolognese pallet is perhaps richer and warmer but the standard tuning more brilliant in high notes.”

Wissick, 8.
explanation for the reason Bolognese composer preferred their particular tuning is that less frequent breakages occurred.\textsuperscript{45}

A matter closely tied to the overall sonority and the fourth advantage in the use of Italian tuning involves sympathetic vibrations. By having two open strings (Gs), an octave apart, whenever one is sounded the other also participates in a low-emitting, but warm sympathetic vibration.\textsuperscript{46} The low C string participates in this attribute as well.\textsuperscript{47}

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{sympathetic_vibrations.png}
\caption{Sympathetic vibrations created by three open strings}
\end{figure}

Certain passages in the Ricercari especially take advantage of the effect of these sympathetic vibrations. In ricercar 1, octave leaps between Gs in m. 26 and again in mm. 54–55 in which quicker notes follow longer ones allow the lower string to continue ringing while the upper notes are played.

\textsuperscript{45} Kinney, 70.


\textsuperscript{47} Cook, 114.
The last chord of Ricercar 6 contains two gs in octaves. With the Italian tuning, this chord can create sympathetic vibrations by ringing two open g strings and one fingered g.
In Ricercar 5, there are numerous instances of the three sympathetic strings played consecutively. The two eighth notes of the fourth beat of m. 22 and the first eighth note of beat one of m. 23 contain an open g – G – C.

Ex 11) Ricercar 5, m. 22–23

Also, beginning in m. 23, while the open string of low C is played as a drone, it oscillates with a large broken C major triad through the second beat of m. 26. This passage creates much ringing sound because of its open C, G, and g strings as well as through overtones of the tonic chords.

Ex 12) Ricercar 5. m. 23–26

The normal tuning
The Italian tuning

In these musical examples, the open string is marked with a 0 on top of the notes as well as the Roman numerals at the bottom to show which strings are used. The normal tuning involves fewer open strings since the middle gs are fingered on the d string as marked in the score. The highest g in m. 26 should be fingered with the fourth finger. On the other hand, in Italian tuning, this note can be played as a harmonic because this g is now the exact half-way point on the string from the nut, the starting point of the fingerboard, to the bridge of the cello. To achieve a harmonic, the left finger should just touch the string slightly rather than pressing down the string. Harmonics require light bow pressures with faster bow speeds, which create a softer but more open sound.

All of these sympathetic vibrations and the harmonics help reinforce the tonality in a warmer manner in Italian tuning than with modern tuning.

In conclusion, while use of Italian tuning is often seen as unnecessary by modern cellists, it helps to create different sounds and, with a transcription, is rather easy to manage. Chapter three will provide a guide for transcribing Italian tuning using Gabrielli’s Ricercari. This chapter is directed at performers specifically and will address several important issues that one should keep in mind when transcribing.
Chapter III

Guide to transcribing Baroque scordaturas using Gabrielli’s *Seven Ricercari*

Chapter three focuses on practical concerns and solutions to creating a scordatura transcription in Italian tuning for a Baroque cello piece. Gabrielli’s *Seven Ricercari* will serve as a case study. In preparing my transcription (appendix 1), I examined published scores of the *Ricercari* in modern tuning as well as the scattered scordatura tunings to determine editorial preferences and priorities. These approaches helped me formulate several “rules” that were important in my edition. This chapter will provide this examination of the published scores and my guide to scordatura transcriptions.

While there are several editions of the Ricercari dating back to the nineteenth century, there are three important modern ones: Dieter Staehelin’s edition for Schott music (1975), Bettina Hoffmann’s edition for Bärenreiter (2001), and Julius Berger’s edition for Schott music (2009). All of these scores are based on the manuscript but show different notational styles and editorial choices such as key signatures, clefs, meter markings, accidentals, musica ficta, bowings, and fingerings, as well as editorial additions like dynamics, articulations, and ornamentation, etc. This comparison provided parameters for my own approach.
In terms of key signatures, all three editions adopt the original key signatures of the manuscript, which, naturally, follow typical Baroque practice. Therefore, the actual key of the music is not indicated in the modern manner. For example, while Ricercar 1 is in the key of G minor, its key signature includes only one flat, which for modern musicians would imply either F Major or D Minor.

Ex 13) Ricercar 1 in G Minor

Likewise, Ricercar 4 is in E flat Major but contains only two flats in the key signature, and neither Ricercar 6 and 7, which are in G Major and D Minor, respectively, contain any accidentals in the key signature.48

In the choice of clefs, all three of the modern editions simplify the score in comparison to the manuscript. While the manuscript frequently alternates between bass clef and tenor clef, Berger and Staehelin employ only the bass clef throughout the entire set. Hoffmann follows this plan except in Ricercar 6. Here the tenor clef appears several times in the high register sections. For example, coinciding with an upward sequential passage, which begins on the third beat of m. 20, the clef changes on the first beat of m. 23 from bass to tenor as the line ascends to the f#. As the music leaps down a tenth to d immediately after the f#, the clef changes back to the bass. This section ends on G on the first beat of m. 24. The next section starts on a g, two octaves higher and the tenor clef is used once again. However, the other two editions maintain the use of

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48 Dieter Staehelin, 6.
the bass clef even in this high register.

Ex 14) Ricercar 6, m. 21

There are differences in the way accidentals are marked between Staehelin, Berger and Hoffmann. The latter two editors follow the normal procedure when it comes to accidentals. They mark the accidental once in a measure, and it is valid on any subsequent repetitions throughout the measure regardless of octaves. They both provide a courtesy natural sign on a note effected by an accidental in the previous measure to help performers avoid any confusion. Staehelin, on the other hand, provides accidentals on each and every note even within the same measure. So, for instance, in m. 34 of Ricercar 3, while Staehelin marks accidentals on each of the three gs, Hoffmann and Berger provide the # only on the first g. In next measure, Berger does not include any marking on g, while both Hoffmann and Staehelin indicate natural signs.

Ex 15) Ricercar 3, m. 34–35

a. Staehelin’s Edition

b. Hoffmann and Berger’s Edition
In a few places, the editors came to different conclusions concerning the use of accidentals. One such passage is in m. 32 of Ricercar 5. In the manuscript as well as in Staehelin and Hoffmann, the last sixteenth note of the first beat is C# as well as the first sixteenth note of the fourth beat. However, Berger provides a C natural first and then applied a sharp on the next C.

Ex 16) Ricercar 5, m. 32

Hoffmann’s edition

Berger’s Edition

In m. 209 of Ricercar 2, Staehelin presents a natural b on the third note of the last beat, after having applied a flat b on the first note of the third beat. While this measure sounds the same in both Hoffmann and Berger, they notated the b natural as musica ficta rather than as a solid marking.

Ex 17) Ricercar 2, m. 209

Hoffman’s edition

Staehelin’s edition

The application of Musica ficta is one of the most important issues in the editing of early
music and it is no wonder that there are discrepancies between the three editions. For example, in m. 32 of Ricercar 5, Hoffmann and Berger both apply a g# as musica ficta on the last sixteenth note while Staehelin leaves it as natural g.

Ex 18) Ricercar 5, m. 32

![Ex 18) Ricercar 5, m. 32](image)

In Ricercar seven, the second beat of m. 78 is a natural B. Hoffmann and Staehelin leave it as in the original, but Berger, here inserts a flat in musica ficta.

Ex 19) Ricercar 7, m. 78

![Ex 19) Ricercar 7, m. 78](image)

In terms of notating musica ficta, Hoffmann marks the indication to the left of the main note in brackets, [#] Berger applies them on top of the notes in parenthesis, (#), while Staehelin places them over the note, but without parentheses or brackets

The application of trills and other embellishments is a similar issue. Like they do with

- 33 -
musica ficta, the editors, except Staehelin, add trills in either parentheses or brackets to indicate editorial markings. Such trills are marked in several places (often also with musica ficta) in both Hoffmann’s and Burger’s editions. On the other hand, Staehelin provides asterisks, leading the player to suggested embellishments he provides below. These embellishments are optional and include arpeggios, simplifications and chords. They are also included in the appendix. While her score is generally the cleanest of the three, in the beginning of Ricercar 7, Hoffmann keeps the whole notes but applies trills on each downbeat in mm. 6–8.

Ex 20) Ricercar 7, m. 6–8

The manuscript includes very few markings other than the actual notes. It does indicate a few slurs, which all three editors include. Among the three editors, Staehelin is the only one who added editorial choices in terms of dynamics (only once a piano in m. 140 of Ricercar 1), slurs, bowings, and articulations. His additions are parenthetical, and he often also includes optional embellishments or alternatives in the footnotes. The other scores are very clean with little editorial additions, other than musica ficta.

As discussed in Chapter 2, there are several places in which meter changes occur in the manuscript without indications. Hoffmann and Berger stay true to the manuscript and do not

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49 Staehelin, 26.
indicate meter changes. Staehelin shows these meter changes in parentheses. For example, Ricercar 1 is in 3/4, but m. 9 contains three half notes instead of quarters. The manuscript and the other two editions simply include the three half notes in a measure, but Staehelin provides a 3/2 marking in parenthesis that then changes back to 3/4.

Ex 21) Ricercar 1, m. 8–10, Staehelin edition

Likewise, he inserts a 3/2 meter change in the common meter in the fifth and six measures of Ricercar 5.

There are also several notes that are different between the editions. The ending of Ricercar 2 for one is different in each edition. The last section of this piece is in 12/8 and finishes in A Minor. However, the manuscript shows only a quarter and half note in the last measure. Hoffmann follows the manuscript. Staehelin fills the last measure with a whole note. Berger applies the same length of the last note as in the manuscript, but the note that appears is a C rather than A, which appears to merely be a typo.

Ex 22) Ricercar 2, m. 226–227

Hoffmann’s edition

Berger’s edition
Staehelin’s edition

A similar spot involves the four sixteenth notes of the first beat of m. 51 in Ricercar 7, which in the manuscript and other editions are d-b-d-a, but in the Berger edition, they are d-b-d-b.

Ex 23) Ricercar 7, m 51

Along with the exploration of the different editions, this discussion will benefit from a comparison of the existing editions of scordatura transcriptions. While there is no complete set, there are three sources that can be examined together. Brian Carter’s scordatura fingering for Ricercar 1, Mark Chambers’s transcription of Ricercar 6, and Bettina Hoffmann’s transcriptions of both Ricercari 6 and 7, included as an appendix to her edition.

In an appendix to his article, “An Examination of Sources as they Pertain to Domenico Gabrielli’s First Ricercar for Violoncello Solo,” Brian Carter provides the Hortus Musicus edition, along with his own handwritten fingerings and bowings on top of each altered note. While this approach is not especially practical for other cellists to use, it helps to show what options are available to cellists who wish to apply scordatura tuning.
Carter specifies that he referred to a rule for bowing (known as the “down bow rule”) from the *Compendio Musicale* (1677) by Bartolomeo Bismantova, in which notes at the beginning of each measure and other “important” notes should be bowed down. However, the authenticity of applying the down bow rule in Italian music is arguable. Anner Bylsma points out that this procedure is primarily a French tradition, while the Italians used a back and forth bowing.

Only one Ricercar, no. 6, exists in multiple transcriptions and a comparison of Chambers’s and Hoffmann’s will help demonstrate necessary decisions a transcriber must make. Naturally, many variances exist between the two. For instance, while Hoffmann, as she had done in her modern-notated scores, follows the Baroque manner of key signatures, and so avoids one for this Ricercar, Chambers assigns a G major key signature. Hoffmann then notates the many f#s with accidentals. In terms of clefs, Chambers remains almost exclusively in the bass clef and uses the tenor clef in only two places, Hoffmann, in general, applies the tenor clef in the higher registers and in this piece, the tenor clef appears four times. Their notations of notes on the g

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string also differ in several places. Chambers is much more devoted to using the open g string, which allows for the greater resonance associated with Italian tuning. Hoffmann, however, utilizes fingered gs more often in order to reduce frequent string crossings. Also, she frequently employs higher left hand positions to avoid extreme left hand shifting. Chambers, more intent on using first positions as much as possible, allows left hand shifting more often.

A short passage from mm. 11–13 will help to demonstrate each editor’s general style, focus and preferences.

Ex 24) Ricercar 6, m. 11–13 in Italian tuning transcription

a. Bettina Hoffmann

In Chambers’s version, which has a G major key-signature, this passage is completely in the bass clef. On the other hand, Hoffmann uses the tenor clef in the upper registers and there is no key signature. Chambers employs the first position whenever it is possible. The second sixteenth note of beat 2 in m. 11 is marked as a, which indicates an open g string. The left hand rests while the a is played and it can come back to the area of first position at this moment. The result is that the
large shifting in the left hand from the third to the first positions is more natural and less sudden. Hoffmann notates a g on the second sixteenth note of second beat, meaning that it is played on the d string instead of the open g string and this position continues for the next four notes which can be played on the first string. In this case, the left hand shifting occurs stepwise: third – second – first. Compared to that of Chambers, whose shifting is third – first – second – first, Hoffmann’s is less frequent. There are two sixteenth-note gs on the first beat of m. 13.

Chambers’s score requires the player to perform the entire twelfth measure and the first half of the thirteenth in the first position. The first three sixteenth notes including the g of the first beat in m. 13 are written for the d string to avoid an awkward string crossing: e – g – f# (II). Then, he applies the top G string for the next g and a on the first position, g – a (I), with one string crossing. Hoffmann, in contrast, applies all gs as fingered gs on the D string. In this case the first sixteenth note e is performed in first position, and then the next three notes (g – f# – a) are presented in the second position. The following a is notated as the sounding pitch with Roman numeral of II. Hoffmann’s edition, by staying on the D string (II) in second position, avoids a large string crossing to the next C# on low G string (III). Chamber’s edition requires crossing two strings since the a is on the top G (I) and the C# is on low G (III).

Each transcription contains at least one mistake. Hoffman notates the second sixteenth note of the last beat as f instead of a in m. 9. This anomaly might be a typo as in her modern addition, the note is a a. In Chambers’s case, m. 91 is missing. There are two other places in his score in which the notes are different compared to the manuscript and other editors’ editions. These differences can be considered editorial choices as some performers choose to use these
notes in their performances. Anner Bylsma applied Chambers’s notation in his recording.\(^\text{52}\) The first place is in m. 62, where the second eighth notes of the last two beat are d and e. However, other editions contains b and a. Also in m. 90, the first beat is a double stop third: f\#-a.

Hoffmann, in contrast, presents this double stop as two gs, fingered g and open g string.

To facilitate this study, I carefully selected the editions of the score to be the basis of my scordatura transcription. I decided to use two editions: the manuscript, mus. G. 79, of which a facsimile was published in 1998 by Arnaldo Forni Editore and Bettina Hoffmann’s edition for Bärenreiter. The reasons for using Hoffmann’s edition are that it is very clean, mostly free of editorial additions, and so close to the manuscript, and that her transcription of Ricercari 6 and 7 provide a useful precedent for my own transcriptions. I have contacted the publishers and have received permission to use their editions in this regard and to include my transcriptions in this document. These scores served as the basis for the comparison of Italian and modern tuning in chapter two as well as the guide to transcribing Baroque scordaturas in this chapter. Also, Bettina Hoffmann’s edition (among the three modern editions) provides all notes, accidentals, and other editorial markings and decisions, such as musica ficta and trills for my transcription.

There are several issues to consider when transcribing pieces in scordatura tunings such as Gabrielli’s Ricercari. First, the transcriber must remember which notes require alterations. In Italian tuning, pitches lower than g are performed on the lower three strings and so do not need to be transposed. Pitches above and including g should be transposed one step higher. For example, the pitch g will be notated as a, a as b, and b as c\#, etc.

\(^{52}\) Anner Bylsma Das Violoncello IM 17. JAHRHUNDERT: The Violoncello in the 17th Century (BMG Music 7978-2-RC, 1989), CD.
Secondly, each octave register requires separate accidentals. As shown on the example above, the notation c# on a string is not c# but b in Italian tuning. Actual c is notated as d, and it is natural c. Thus the octave lower C should be marked as C natural otherwise the upper c will sound natural while low C creates C#.

Ex 25) Ricercar 5 m. 11

Thirdly, decisions about which key signature to employ are necessary as there are several ways to apply key signatures in the scordatura transcript. One way would be to use original key signature and apply appropriate accidentals for the altered string. Mark Chambers chooses this manner. Another way is to remove the key signature and notate all accidentals which occur as a result of the key as well as that of the altered string. Most of the twentieth scordatura transcriptions, apart from Chambers’s, follow this procedure. I have decided against using key signatures for the transcript and rather mark all accidentals required. While this creates
a more cluttered score—there are many accidentals—, it is the most practical way to read the transcription as it eradicates any “hidden” accidentals on the altered string as a result of the key signature.

The fourth issue concerns left hand positions. The transcriber should keep the lower three strings in the first position of the cello whenever possible, because this position creates an emphasis on open strings, which is an important issue in Baroque performance practice.53 The use of first position is the basic rule for scordatura composition as well.54 When exceptions to this rule are necessary, Roman Numerals should be marked on corresponding notes to clear up confusion concerning positions and to prevent wrong notes. Also the notes should be marked as normal pitches instead of transposed ones. Many examples of this approach can be found in Bettina Hoffmann’s transcription. For instance, it is recommended that m. 73 of Ricercar 6 be performed on the d string even though the first two beats, excepting the chord, are playable on the a string. Because the chord must be played in the fourth position, it is easier to maintain this same position on the d string, rather than rapid shifting of the left hand in a fast tempo to reach the first position on the a string.

Ex 26) Ricercar 7, m. 73

53 Bettina Hoffmann, X.
54 Chambers, 74.
In m. 220 of Ricercar 2, large intervals occur between each of the first two quarter notes (g# and a) and eighth notes (e and d). These four notes are in third and fourth position so in this case, string crossings are more efficient compared to a left hand jumping back and forth from first to fourth positions on the a string. However, the third quarter note (g) can be played either on the a string or g string because the next notes are all in first position.

Ex 27) Ricercar 2, m. 220

Fifth, when it comes to the g pitch, the transcriber will have to make choices based on context. For instance, in general, avoiding complex string crossings is more important than a note played on an open string. Several places in which this rule is important are as follows. When the preceding note occurs on the d string and immediately goes back down to the d string after a g is performed, such as in an upper neighboring figure (f – g – f), it is better to stay on the d string to avoid extra string crossings. In this case, because it is on the d string, g should be marked as pitch.

Ex 28) m. 58 in Ricercar 2

g on a string       g on d string
When g is used as a lower neighboring tone, then it should be played on the A string because it does not create any extra string crossing.

Ex 29) Ricercar 1, m. 55

If g is in the middle of an ascending or descending passage (i.e., a passing tone), then it can be played on either the A or D string because it does not cause any extra string crossings. However, the A string is preferred because it is an open string. In m. 50 of Ricercar 3, the g on the second beat can be performed on the A string because it is a passing tone. However, the next g would be better on the D string because the next note is on d string. The g on the last beat can be played on the first string as it descends from the A string.

Ex 30) Ricercar 3, m. 50

For another example, there are four “g”s in m. 25 in Ricercar 6. Hoffmann marked the first three gs as sounding pitch and the last g as “a”, indicating an open top g string to avoid too many string crossings.
Finally, practical measures are also important. Performers should continually check their transcriptions against the sources as well as playing through many times to locate and correct mistakes. I highly recommend that transcribers become sufficiently familiar with Italian tuning first through playing and transposing, before beginning to make the transcription. When the transcriber is accustomed to the fingering of the Italian tuning, s/he can easily imagine the position and fingering of notes and convert them to the transposed notes directly from his/her head. In this case, the transcriber will not need to calculate each note one step higher, and so the transcribing process will be easier and the time shortened. In the same context, playing through the Ricercari several times will help the transcriber get used to the music and especially help in hearing the correct pitches.
Chapter IV.

Complete transcript scordatura for Domenico Gabrielli’s Seven Ricercari for Violoncello Solo
Seven Ricercari for Violoncello Solo
Ricercar 1
Domenico Gabrielli
1659-1690
Ricercar 3
Conclusion

This document has sought to counter the unfamiliarity among cellists of a tuning important especially in Bologna in the late seventeenth century. While pieces from this region and time period are among the earliest for the solo instrument, modern cellists have largely ignored them, leaving this repertoire to the “specialists” in Baroque music. Even as select works have been gaining in popularity and modern editions created, cellists have been hesitant to adopt Italian tuning and have relied on editions forced to some aspects of the original to facilitate modern tuning. Well-established repertoire pieces, such as J. S. Bach’s Suite V, which was written in Italian tuning—for Bach, an intentionally scordatura, or mistuned tuning—are most often printed and played in modern tuning. Other than mere ignorance of alternate tunings, reasons that cellists may not retune their instruments for these pieces include the inconvenience of retuning the string and repositioning the left hand, concerns over breaking the balance of the normal instrument setting, and especially, that playing in Italian tuning with a modern score would require awkward transposition of the higher range of the instrument. While the first two of these are mainly non-issues, the last is easily overcome with a good transcription.
Using Domenico Gabrielli’s *Seven Ricercari* as a case study, this document has sought to educate cellists about the possibilities and benefits of employing Italian tuning in their performances. It has provided a concise history of the development of the cello and its tuning as well as detail of the differences between Italian tuning and its modern counterpart. Especially important in connection with the *Seven Ricercari* is that using Italian tuning will result in the ability to perform all the original chords, simpler fingering and bowing with less string crossing (a goal of the composers of this music), and a slightly altered tonal palette that allows for sympathetic vibrations and other subtle sonorities that contribute to the “warmer” sound of this music. For these reasons, this document has advocated for the use of Italian tuning as well as for enthusiasm among cellists for creating their own transcriptions. These transcriptions are not difficult to produce and with careful consideration of issues such as key signature, clef, musica ficta, and use of specific strings and their marking, among others, cellists will have the necessary tools for using Italian tuning. My own transcription of the *Seven ricercari* will hopefully inspire cellists to play these pieces with their original tuning and to transcribe other works from this era as well.
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