

FIGURE IT OUT:  
AN APPROACH TO PLAYING BASSO CONTINUO ON THE VIOLIN

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*To the memory of my grandfather Ruy Saraiva Barbosa*



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## TABLE OF CONTENTS

Dedictory.....	iv
Acknowledgements.....	v
Table of Contents.....	vi
List of Examples and Tables.....	vii

## CHAPTER 1

### PART 1: INTRODUCTION TO BASSO CONTINUO AND BASSO CONTINUO

PRACTICE ON THE VIOLIN.....	1
1. Definitions and role of Basso Continuo.....	1
2. Instruments used in Basso Continuo and Continuo as a function.....	2
3. Introduction to the violin as a Basso Continuo instrument.....	3

### PART 2: SOURCES DISPLAYING CHORDAL APPROACH AND ACCOMPANIMENT PRACTICES ON THE VIOLIN.

1. Italy: From the early sources of Biaggio Marini to Tomaso Pegolotti.....	11
2. England: Nicola Matteis and Playford's Division Violin.....	16
3. France and violin duo literature: The <i>Violon par accord</i> of Joseph Bodin de Boismortier and the works of Luigi Boccherini.....	21
4. German violin literature: Johann Sebastian Bach and his influences.....	27
5. Conclusions to the first chapter.....	34

## CHAPTER 2

### FIGURE IT OUT: A PROPOSED APPROACH TO LEARNING BASSO CONTINUO ON THE VIOLIN

1. Technical considerations 1: Become acquainted with basic triads and their functions.....	36
2. Drawing from literature 1: Using methods not originally for violin: Jean-François Dandrieu.....	40
3. Technical Considerations 2: Contextualizing basic triads, implying chords and expanding harmonic vocabulary with the aid of technology: The V-I cadence and the dominant-seventh chord.....	42
4. Drawing from literature 2: Using methods not originally for violin: cello methods.....	56
5. Technical Considerations 3: Diminished chords and most common suspensions	
6. Drawing from literature 3: learning common formulas and style from violin literature.....	66
7. Final remarks.....	86

<b>BIBLIOGRAPHY.....</b>	<b>88</b>
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## EXAMPLES

### CHAPTER 1

Example 1. A. Corelli, “La Folia” (var. 5) - Cello Accompaniment .....	6
Example 2. A. Corelli, “La Folia” (var. 7) - Violin Accompaniment.....	6
Example 3. A. Corelli, “La Folia” (var. 21) - Cello Accompaniment for violin playing double-stops (few figures) .....	7
Example 4. A. Corelli, “La Folia” (var. 1) - Cello Accompaniment for Violin Playing Single Stops (Many Figures) .....	8
Example 5. A. Corelli, “La Folia” (var. 4) - Cello and violin alternating the bass line) ..	8
Example 6. B. Marini, “La Malipiera” Op. 2 (1618) and excerpt from <i>Sonata quarta</i> (1629).....	11
Example 7. Carlo Farina, Excerpt from Sonata 2 “La Desperata” .....	12
Example 8. T. Pegolotti, Trattenimento Duodecimo (opening line).....	14
Example 9. T. Pegolotti: Trattenimento Duodecimo (second line) .....	14
Example 10. T. Pegolotti, Trattenimento Nono (opening bars).....	15
Example 11. N. Mattei, Second Book of Ayrns Sonata 1 in G.....	17
Example 12. N. Mattei, Solo Fantasia .....	18
Example 13. J. Playford: The Division Violin (page 9) .....	19
Example 14. J. Playford: The Division Violin (page 12) .....	19
Example 15. J. Playford: The Division Violin (page 34) .....	20
Example 16. J.B. de Boismortier, Excerpt from the last line of Sonata 1 .....	22
Example 17. J.B. de Boismortier, Opening of Sonata 2 (Vivace) .....	22
Example 18. Bass line-like accompaniment - L. Boccherini, Excerpt from Duet 6.....	25
Example 19. Double stops accompaniment - L. Boccherini, Excerpt from Duetto 4.....	25
Example 20. Broken chord style accompaniment - L. Boccherini, Excerpt from Duet 2.....	25
Example 21. Similar accompaniment to example 18 in the cello part of A. Vivaldi, Op.3 n.6 ( <i>L’estro armonico</i> ).....	25
Example 22. Similar accompaniment to example 19 in J.M. LeClair, op.3 (second violin part).....	26
Example 23a and 23b. Similar accompaniment to example 20 in the piano part (23a) and, in the violin part (23b) of L. v. Beethoven, “Spring” sonata .....	26
Example 24. J.H. Schmelzer, <i>Unarum Fidium 1664</i> , Sonate 4 (Adagio).....	28
Example 25. H.I. Biber, <i>Sonatae a Violino Solo 1681</i> , (pag. 10).....	28
Example 26. J. J. Walther, Hortulus Chelicus 1688 (Preludio 2).....	29
Example 27. Excerpt from piece by W. Gerhard (1613) .....	29
Example 28. J.G. Pisendel, Solo Sonata (c.1720).....	30
Example 29. A. Vivaldi’s, <i>Il Grosso Mogul</i> , Excerpt 1.....	31
Example 30. J. S. Bach, Excerpt from Organ Adaptation BWV 594 .....	32
Example 31. A. Vivaldi, <i>Il Grosso Mogul</i> , Excerpt 2.....	33
Example 32: J.S. Bach BWV 594, <i>Il Grosso Mogul</i> , Excerpt 2 (m. 40 starts in the m. 3 of line one) .....	33

## CHAPTER 2

Example 1. Step 1: Single Notes (implies a chord) .....	38
Example 2. Step 2: Double Stops – Close Voicings (3 <sup>rd</sup> and 4 <sup>th</sup> intervals) .....	38
Example 3. Step 3: Double Stops – Spread Voicings (5 <sup>th</sup> and 6 <sup>th</sup> intervals) .....	38
Example 4. Step 4: Triple Stops – Close Voicings .....	38
Example 5. Step 5: Triple Stops – Spread Voicings .....	38
Example 6. Step 6: Quadruple Stops – Spread Voicings .....	38
Example 7a. Chords on the Violin with Different Voicings (G Major) .....	39
Example 7b. Chords on the Violin with Different Voicings (Ab Major) .....	40
Example 8. Continuo Exercise Adapted for Violin based on Dandrieu’s Method .....	41
Example 9. Chord Stacks on I-V-I Based on Exercises by C. Howes .....	43
Example 10. Chord Tones Isolated by Chord and Strings .....	44
Example 11. Pairing of Chords .....	44
Example 12. Progressions Derived from Example 11 .....	45
Example 13. Progressions Derived from Example 11 (continued) .....	45
Example 14. Progressions Derived from Example 11 (continued) .....	46
Example 15. Progressions Derived from Example 11 (continued) .....	46
Example 16. Progressions in Ab Major (First to Second Inversion) .....	47
Example 17. Progressions Derived from Example 16 .....	47
Example 18. Progressions Derived from Example 16 (continued) .....	47
Example 19. Progressions Derived from Example 16 (continued) .....	48
Example 20. Progressions Derived from Example 16 (continued) .....	48
Example 21. Progressions in Ab Major (Second Inversion to Root) .....	49
Example 22. Progressions Derived from Example 21 .....	49
Example 23. Progressions Derived from Example 21 .....	49
Example 24. Progressions Derived from Example 21 .....	50
Example 25. Progressions Derived from Example 21 .....	50
Example 26. Good and Bad Chord Voicing on the Violin .....	51
Example 27. A. Corelli, 1 <sup>st</sup> Movement of Sonata 1, Op. 5, Page 3 .....	52
Example 28. A. Corelli, 3 <sup>rd</sup> Movement of Sonata 1, Op. 5, Page 5 .....	52
Example 29. Dominant-Seventh Chord and its Inversions on the Violin .....	53
Example 30. Four-part Dominant-Chord Resolving to Three-part Chord .....	53
Example 31. Dominant-Seventh Chord Tones and Resolutions by Step .....	54
Example 32. Dominant-Seventh Chord in Three-part Harmony .....	55
Example 33. Replacing the Dominant Chord for the Dominant-Seventh Chord .....	55
Example 34. A. C. Piatti, Cello-Schule, page 78 .....	56
Example 35. Duport Exercise in A. C. Piatti, Cello-Schule, page 78 .....	57
Example 36. Piatti Example Adapted for Violin Practice .....	57
Example 37. Duport Example Adapted for Violin Practice .....	58
Example 38. Example 36 with Added Figures .....	58
Example 39. Example 37 with Added Figures .....	59
Example 40. Piatti, Fifths Exercises Adapted for the Violin .....	59
Example 41. Piatti, Seventh Exercises Adapted for the Violin .....	60

Example 42. J. B. Breval, <i>Traité du Violoncelle</i> , Op. 42 page 136 .....	61
Example 43. J. B. Breval, Exercise Adapted for the Violin .....	62
Example 44. Baillot, Levasseur and Catel's <i>Methode de Violoncelle e de Bassed'Accompagnement</i> , page 243 .....	65
Example 45. Baillot, Levasseur and Catel's <i>Methode de Violoncelle e de Bassed'Accompagnement</i> , page 242 .....	65
Example 46a. Different Notations of Intervals .....	66
6	
Example 46b. The 4 Chord in Context .....	67
3	
Example 47a. The Diminished Chord in Context .....	68
Example 47b. Diminished Chords Possibilities in Equal Temperament .....	68
Example 48. Four-part Diminished Chords on the Violin 1 .....	69
Example 49. Four-part Diminished Chords on the Violin 2 .....	69
Example 50. Diminished Chords in Context on the Violin .....	70
Example 51. Common Suspensions on the Violin 1 .....	71
Example 52. Common Suspensions on the Violin 2 .....	71
Example 53. Common Suspensions on the Violin – Combinations .....	72
Example 54. 5-6 Suspensions Replacing a 7-6 Suspension .....	72
Example 55. “La Folia” Ground with Figures .....	74
Example 56. “La Folia” Ground with Figures and Chord Stack .....	74
Example 57. “La Folia” Ground Harmonized on the Violin .....	74
Example 58. Sequences of Thirds Present in Corelli Op. 5 “La Folia” Variations .....	76
Example 59. Corelli, “La Folia” Bass from Theme .....	76
Example 60. Corelli, “La Folia” Bass Possible Realization on the Violin .....	77
Example 61. Corelli, Bass with Chord Stacks Above and Below the Bass notes .....	78
Example 62. Corelli, Bass Modified for Lower Strings of the Violin .....	78
Example 63. Comparison of Range: Variation 15 and Example 61 .....	78
Example 64. <i>Lamento</i> Bass from Biber's <i>Passacaglia</i> with Chord Stack .....	79
Example 65. <i>Lamento</i> Bass Realization Possibilities for Biber's <i>Passacaglia</i> .....	79
Example 66. Mixing Two- and Three-part Chords in Continuo Realization .....	80
Example 67. Variety in Biber's Treatment of the Descending Tetrachord .....	81
Example 68. Boismortier, Sonata 2 from Op. 51 (Opening of Third Movement) .....	82
Example 69. Example 68 With Modified Bass Line .....	83
Example 70. Figuring of the Violin 2 Line and New Bass Line .....	84
Example 71. New Violin Line With Figures .....	84

**TABLES**

Table 1. Corelli, “La Folia” Variations: Use of Multiple Stops ..... 75

## CHAPTER 1

### PART 1: INTRODUCTION TO BASSO CONTINUO AND BASSO CONTINUO PRACTICE ON THE VIOLIN

#### 1. Definitions and role of Basso Continuo

Appearing in publishing for the first time in Lodovico Viadana's *Cento concerti ecclesiastici....con il basso continuo* (Venice, 1602), basso continuo was employed in music performance and education over the course of at least 200 years in Europe.

Although performance of basso continuo subsided in the 19th C., it remained in use in analysis and theory all the way up to the 20<sup>th</sup> Century when, with the rise of schools, conservatories and departments dedicated to the study historically informed practice, it started being studied again not merely as a theoretical device, but as a required tool for performance.

With its origins in the mid-16<sup>th</sup> Century, continuo is likely to have appeared first as a device to create abbreviated scores for organists to provide, in a small amount of space, a written possibility of accompanying, replacing voices or recreating motets: "These parts satisfied an existing need. As mentioned in prefaces and titles, they were included for the convenience of the organists who otherwise would have to make one up".<sup>1</sup>

Early in the 17<sup>th</sup> Century, it would soon prove much more useful and important than just a reduced part with the changes in treatment of text in musical language, and the adding of the *secunda practica* to the existing musical practice. According to Bukofzer the *secunda practica* would eventually define the Baroque period:

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<sup>1</sup> Tharald Borgir, *The Performance of the Basso Continuo in Italian Baroque Music*, Studies in Musicology (Ann Arbor, Mich.: UMI Research Press, 1987), 14.

The change from renaissance to Baroque music differs from all other stylistic changes in music history in one important aspect. As a rule, the musical style of the old school fell into oblivion. The new style took over and transformed the last vestiges of previous musical techniques, so that the unity of style in each period was assured.<sup>2</sup>

Basso Continuo became a fundamental part of the new musical style, a device to write an accompanying part and, for the next two centuries, it shaped the treatment of harmony into the 20<sup>th</sup> Century.

## **2. Instruments used in Basso Continuo and Continuo as a function**

Basso Continuo is more than a way of notating and performing harmony or a reference to a particular practice. The term can also apply to the instrument or group(s) of instruments that perform the written continuo line.

Many possibilities exist, ranging from a single accompanying instrument to combinations of instruments, and documentation of playing in historical treatises or notated by composers have given room for a number of discussions on the topic. The use of instruments is generally not well documented before the 17<sup>th</sup> Century but records on the Florentine *Intermedii*<sup>3</sup> provide insight into the practice of different instruments being used for accompanying, and the possible origins of Basso Continuo. Agostino Agazzari, in his *Del sonare sopra il basso* (published in 1607) provides one of the first definitions of continuo instruments, dividing instruments in two categories:

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<sup>2</sup> Manfred F. Bukofzer, *Music in the Baroque Era : From Monteverdi to Bach*, 1st ed. (New York: W.W. Norton, 1947), 3.

<sup>3</sup> For more information on use of instrument in the 16<sup>th</sup> C., please see: Howard Mayer Brown, *Sixteenth-Century Instrumentation : The Music for the Florentine Intermedii* ([Dallas]: American Institute of Musicology, 1973).



...instruments like a foundation and instruments like ornaments. Like foundation are those which guide and support the whole body of the voices and instruments of the consort; such as the organ, harpsichord, etc. Like ornaments are those which in a playful and contrapuntal fashion, make the harmony more agreeable and sonorous, namely, the lute, theorbo, harp, *lirone*, *cetera*, spinet, *chittarrina*, violin, pandora, and the like.<sup>4</sup>

From Agazzari's description, we can see that certain instruments are naturally more suited to continuo, such as keyboards or harp. Their broad range allows for chords to be played in all possible inversions, with multiple possibilities for voicings, including playing all voices at once. Also, we can see that more limited instruments, such as bowed strings, theorbo and guitar, although not necessarily able to perform all the voices at once, can perform continuo functions, replacing or reinforcing instruments of foundation.

Having several instruments perform as continuo separately or in combination on a given piece has several advantages, from changing musical colors to adding volume. This can be especially important in a bigger, non-chamber music setting such as one of the most important musical forms of in the Baroque: opera.

### **3. Introduction to the violin as a Basso Continuo instrument**

The accompaniment of music on bowed strings is not an original Baroque practice. Long before continuo instruments described by Agazzari, the *lira da braccio* and the *lirone* - both instruments precursors of the violin family - were used in secular music to play accompaniment or improvised counterpoint.<sup>5</sup>

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<sup>4</sup> Translation in W. Oliver Strunk, *Source Readings in Music History from Classical Antiquity through the Romantic Era*, [1st ed. (New York,: Norton, 1950), 425.

<sup>5</sup> More information on that on Brown, Chapter IV.

Realizing continuo on the cello is well documented in historical resources and treatises.<sup>6</sup> By the end of the 17<sup>th</sup> Century one can already see in cello literature technical developments those rival that of the violinists of the time.<sup>7</sup>

The literature on teaching continuo on the violin on the other hand, as far as we know today, does not exist or has been lost. Nevertheless historical documents and music by Baroque composers show evidence of such practice.

Back to Agazzari's quotation, we can see that the instruments described as "like ornaments", can have a supporting role in the performance continuo and, by "playing in a playful and contrapuntal fashion, make the harmony more agreeable and sonorous."<sup>8</sup>

Leopold Mozart in his *Versuch einer gründlichen Violinshule* writes: "I often had occasion to laugh at violoncellists who actually permitted the bass part to their solo to be accompanied by the violin, although another violoncello was present."<sup>9</sup>

Would that perhaps be a reference to Luigi Boccherini's performances with the violinist Filippo Manfredi, with whom he had travelled Europe together some twenty years before? We have evidence of Boccherini traveling with a cellist only and he was not the only cellist to travel with a violinist. Violinist Giuseppi Tartini was a close friend and collaborator of the Bolognese cellist and composer Antonio Vandini.<sup>10</sup> Is it possible that during their 50 years of friendship and collaboration, Tartini would have played

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<sup>6</sup> For more information on continuo practice and instruction on the cello, see Philippe Lescat a Jean Saint-Arroman (Paris: Edition J. M. Fuzeau, 1998) "Violoncelle : Méthodes Et Traités, Dictionnaires, Préfaces Des Oeuvres," ed. Philippe Lescat and Jean Saint-Arroman (Courlay, France :: Editions J. M. Fuzeau, 1998).

<sup>7</sup> Examples of cello writing in the late 17<sup>th</sup> Century include the *Ricercate sopra il violoncello o clavicembalo* by G.B. degl' Antonii (1697) and D. Gabrielli's collection of *ricercari* (1689).

<sup>8</sup> Strunk, 425.

<sup>9</sup> The statement belongs to a footnote in the preface to the edition of 1787 of the treatise: Leopold Mozart, *A Treatise on the Fundamental Principles of Violin Playing*, trans. Editha Knocker, 2nd ed. (New York: Oxford University Press, 1951), 11, n. 1.

<sup>10</sup> Sven Hansell and Maria Nevilla Massaro. "Vandini, Antonio." *Grove Music Online*. Oxford Music Online. Oxford University Press, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/28999> (accessed July 28, 2013).

continuo for Vandini for his cello sonatas? The use of cello alone as continuo instrument, although not in practice today, would not have been unusual. In fact, in the original title page of Arcangelo Corelli's Op. 5, one reads *Sonata a Violino e Violone o Cimbalò...*<sup>11</sup> perhaps implying that the practice was not uncommon.

Several articles exist discussing Corelli's and other composer's similar titles including possible performance solutions on the cello alone or with continuo groups. Although there is no particular conclusion regarding the practice<sup>12</sup>, something that is known for sure is that many publications similarly titled – implying the cello used as the only basso continuo instrument – not only exist but are common throughout Italian Baroque Literature<sup>13</sup>.

In the sonatas by Corelli we can see some examples of how a violin could possibly provide accompaniment for a cello line.

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<sup>11</sup> Title of the first edition published in Rome (1700). Later editions use the same title, including the ones published by Etienne Roger in Amsterdam throughout the first decade of the 1700's. J. Walsh published an edition of Op. 5 in London (1711) entitled *XII Sonatas 's or solo's for Violin with, a bass Violin or Harpsichord*, and another one edition (1740) with the title *XII Solos for a Violin with a through Bass for the Harpsichord or Violoncello*.

<sup>12</sup> For a discussion on the topic, see the articles of Lars Ulrik Mortensen, David Watkin and Neal Zaslaw in *Early Music* (1996).

<sup>13</sup> *Ibid.*

Example 1. A. Corelli, "La Folia" (var. 5) - Cello Accompaniment<sup>14</sup>

The image shows a musical score for Cello Accompaniment. It consists of five staves. The top staff is the Cello part, written in bass clef. The second staff is the Violin part, written in treble clef. The third staff is the Viola part, written in alto clef. The fourth staff is the Violoncello part, written in bass clef. The fifth staff is the Double Bass part, written in bass clef. The score includes various musical notations such as notes, rests, and ornaments. There are some markings like 'Vda' and '43' at the end of the piece.

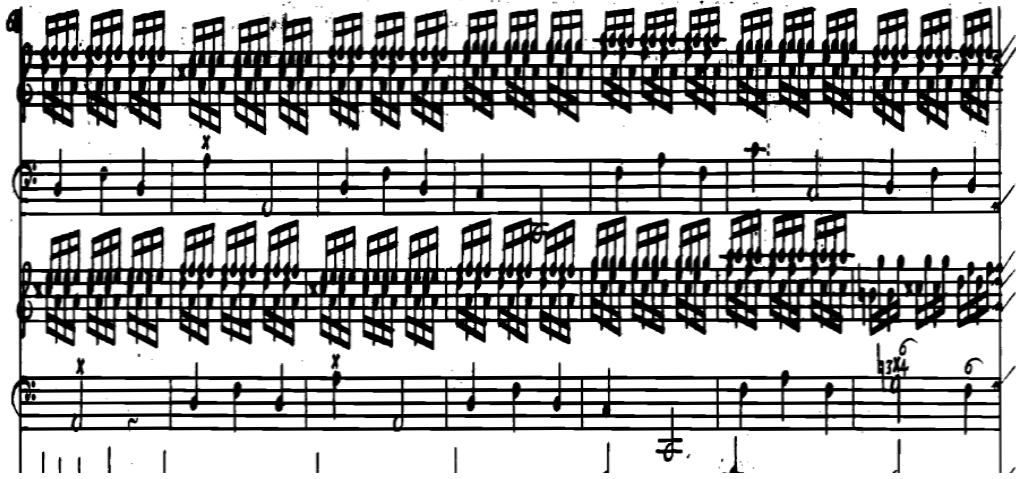
Example 2. A. Corelli, "La Folia" (var. 7) - Violin Accompaniment<sup>15</sup>

The image shows a musical score for Violin Accompaniment. It consists of five staves. The top staff is the Violin part, written in treble clef. The second staff is the Cello part, written in bass clef. The third staff is the Viola part, written in alto clef. The fourth staff is the Violoncello part, written in bass clef. The fifth staff is the Double Bass part, written in bass clef. The score includes various musical notations such as notes, rests, and ornaments. There are some markings like 'Adagio' and '44' at the beginning of the piece.

<sup>14</sup> Arcangelo Corelli. *Parte prima [-seconda]. Sonate a violino e violone o cimbalo... Opera quinta. Incisa da Gasparo Pietra Santa. Troisième édition où l'on a joint les agrèemens des adagio de cet ouvrage, composez par Mr A. Corelli comme il les joue.* [Op. 5]. (Amsterdam: E. Roger, 1725), 67.

<sup>15</sup> *Ibid*, 67.

Example 3. A. Corelli, “La Folia” (var. 21) - Cello Accompaniment for violin playing double-stops (few figures)<sup>16</sup>



In figure 1, we can see the lower line accompanying the violin figure (variation starting at the end of first line). When the next variation starts in figure 2, the violin switches roles with the cello. When the cello accompanies, the continuo is marked with figures, but when the violin takes the role, the part is written out. In figure 3, when violin is playing double-stops, very few figures are marked in comparison to previous variations when the violin is playing single stops.

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<sup>16</sup> Ibid, 72.

Example 4. A. Corelli, “La Folia” (var. 1) - Cello Accompaniment for Violin Playing Single Stops (Many Figures)<sup>17</sup>

In some variations, we also see the bass line is sometimes shared between violin and cello.

Example 5. A. Corelli, “La Folia” (var. 4) - Cello and violin alternating the bass line)<sup>18</sup>

In the example above, it is interesting to notice that the cello line is very high on the instrument, and close to the violin. The violin uses chords for a strong and sonorous first

<sup>17</sup> Ibid, 66.

<sup>18</sup> Ibid, 67.

beat and immediately jumps down an octave, close to the cello range, shortening the distance between the voices.

Looking at the examples above, one could ask: Is it possible that violinists read continuo figures? And if they did, what about adding chords in the part to fill out continuo figures when playing with an instrument such as a cello, that did not naturally provide full chords as a keyboard instrument? We know that some harpsichordists and organists may have not always played all the figures written above the bass. As Werckmeister wrote in 1698:

Nor is it advisable that one should always blindly play together with the vocalist or instruments the dissonances which are indicated in the Through-Bass, and duplicate them. For, when the singer is expressing pleasing sentiment (einen anmuthigen affectum) by the dissonance written, a thoughtless accompanist (General- Bassiste), if he walk not warily, may spoil the whole pleasing effect with the same dissonance; therefore the figures (Signaturen) and dissonances are not always put in in order that one should just blindly play them (so krasse mitmache), but one who understands composition can see by them what the author's idea is, and avoid countering them with anything whereby the harmony would be impaired.<sup>19</sup>

Additionally, we know that often a bass line is “performed without figures [harmonies] on the *Bass Viol* [gamba] or the *Bass Violin* [cello].”<sup>20</sup> The same is true when violins and violas work together to perform harmonic functions in concertos in the practice known as *bassetchen*. The knowledge of harmony is especially important in these cases. In *Versuch einer Anweisung di Flöte traversiere zu spielen*, J.J. Quantz writes, on his session on violist, that:

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<sup>19</sup> English translation in: F.T. Arnold, *The Art of Accompaniment from a Thorough-Bass: as Practised in the Xviiith & Xviiiith Centuries* (Mineola, N.Y.: Dover Publications, 2003), 227.

<sup>20</sup> Brossard's *Dictionnaire de Musique*. In Carlo Graziani, *Sonatas for Violoncello and Basso*, ed. Mara E. Parker (Madison, Wis.: A-R Editions, 1997), xii.

He [violinist] must not only have an execution equal to that of the violinists, but must likewise understand something of harmony, so that if at times he must take the place of the bass player and play the high bass<sup>21</sup>, as is usual in concertos, he may know how to play with discretion...he must adjust his performance of the high bass to each sentiment and accommodate it to the upper part.<sup>22</sup>

It is clear that from this quote that, even when one is not performing the figures, the knowledge of continuo is of great importance in performing a bass line by itself or a harmonic inner voice. Besides, the practice to which Quantz is referring is not unique to concertos. Similar writing is present in chamber music throughout the Baroque and in the classical period in piano and violin sonatas as well as string quartets and orchestras parts.

We will now proceed to part 2, where we will look at examples of chordal practice on the violin. In these examples we will see the violin functioning as an accompanist, sometimes with single notes, others with arpeggio passages and double- or multiple-stops.

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<sup>21</sup> *Bassetchen* in the original text.

<sup>22</sup> Joseph Joachim Quantz, *On Playing the Flute*. Translated by Edward R. Reilly. 2<sup>nd</sup> ed. (New York, Shirmer Books, 1985), 237.



## PART 2: SOURCES DISPLAYING CHORDAL APPROACH AND ACCOMPANIMENT PRACTICES ON THE VIOLIN.

### 1. Italy: From the early sources of Biaggio Marini to Tomaso Pegolotti

Multiple-stops can be found in the literature as early as the violin repertoire started being published. According to Willi Apel, Biaggio Marini “was the first to use double-stops and scordatura on the violin”<sup>23</sup> in published music. His Op. 2, from 1618 is the first publication to show double-stops notated for the violin. Example 6 shows an Example from Op. 2’s “La Malipiera” (1618) and another from Op. 8’ *Sonata quarta* (1629)

Example 6. B. Marini, “La Malipiera” Op. 2 (1618) and excerpt from *Sonata quarta* (1629)

The image displays three staves of musical notation. The top staff, labeled 'Canto I', shows a melodic line in treble clef with a key signature of one sharp (F#) and a 2/4 time signature. It features several triplet markings over groups of three notes. The middle staff, labeled 'Sonata Quarta Exerpt', shows a melodic line in treble clef with a key signature of one sharp (F#) and a 2/4 time signature, featuring a double-stop. The bottom staff is a continuation of the double-stop from the middle staff, showing a treble clef, a key signature of one sharp (F#), and a 2/4 time signature.

The practice of playing double-stops on the violin certainly preceded these publications, as borrowing technique from other instruments was common practice:

In the early stages of developing its own idiom, the violin drew heavily on the technique of older instruments. The figurations and *passaggi* of viols, voice, and keyboards were adapted to the peculiar needs of the violin, and certain devices, now

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<sup>23</sup> Willi Apel and Thomas Binkley. *Italian Violin Music of the Seventeenth Century*. (Bloomington: Indiana University Press, 1990). 53.

regarded as basic to the violin idiom, were developed from long-standing practices of the viols and even the lutes. Two good examples are the vibrato and multiple stops.<sup>24</sup>

Marini was both an accomplished violinist and organist. He worked as a violinist at San Marco from 1615 to 1620 under Claudio Monteverdi, before accepting the position of organist and chapel master in Brescia in 1620.<sup>25</sup>

Of particular interest in the beginning of notation of double stops on the violin is the example below from Carlo Farina's *La Desperata*.

Example 7. Carlo Farina, Excerpt from Sonata 2 "La Desperata"<sup>26</sup>



In the example above the double stops are inserted in the score as numbers (just like figured bass) rather than notes. The writing on the example reads, "Where the sign "B" appears above the notes, one plays with two strings, which means that the number [above the notes] represents the distance to the lower note."<sup>27</sup> This indicates that not only it was possible that violinists read continuo lines, but also that figured bass notation could have

<sup>24</sup> David D. Boyden, *The History of Violin Playing from Its Origins to 1761: and Its Relationship to the Violin and Violin Music* (Oxford: Oxford University Press, USA, 1990), 166.

<sup>25</sup> Apel, 47.

<sup>26</sup> Carlo Farina, *Fünffter Theil newer Pavanen, Brand: Mascharaden, Balletten, Sonaten* (Dresden: Bimel Bergen, 1628), *Sonata`a 2*.

<sup>27</sup> "Dove si trouera sopra le note il segno B. si sonera con la corda doppia cio e si intende che il numero serue per la distantia della nota che va sonato Sotto."

been used by violinists to notate double stops. Although we cannot find more evidence today of the use of the above notation, we can find fully notated examples of similar passages in the violin.

Very little is known of the life of Tomaso Pegolotti, except the little he wrote about himself in the preface of his *Trattenimenti armonici da camera a Violino solo, e Violoncello* (published in Modena in 1698). The preface does not offer many suggestions on performance of the pieces, but it does state that “[if] the sonority of so few notes may not appear to be pleasant or full enough; it is therefore left to the reader to use his sagacity to put the composer’s poor knowledge into due proportion.”<sup>28</sup>

According to Ernst Kubitschek, the editor of the modern edition of the collection that survives in *Museo Bibliografico-Musicale* in Bologna “Pegolotti is clearly referring to the problem posed by many duets for violin and cello, the distance between the upper and lower parts. This serves to underscore the independence of the two parts but makes the sound they produce together slim.”<sup>29</sup>

Kubitschek also goes on to say that “The composer himself offers one solution to the problem in the 12<sup>th</sup> *Trattenimento*: there is a second version of the violin part with double stops all the way through. This makes the harmonies much more complete, and a similar procedure would be quite appropriate in other pieces too.”

In example 8 and 9, we can see how, in the first movement (*Introduttione*), Pegolotti adds double-stops to the violin part.

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<sup>28</sup> Tomaso Pegolotti, and Ernst Kubitschek. *Trattenimenti armonici da camera: für Violine und Violoncello* (Wien: Doblinger, 1983), Preface.

<sup>29</sup> Ibid. Preface.

Example 8. T. Pegolotti, Trattenimento Duodecimo (opening line)<sup>30</sup>

**TRATTENIMENTO DUODECIMO**

**INTRODUZIONE**  
Adagio

The musical score for Example 8 consists of three staves. The top staff is labeled 'Violino alternativo' and contains a melodic line with dynamics 'p' and 'f'. The middle staff is labeled 'Violino' and contains a similar melodic line with dynamics 'p' and 'f'. The bottom staff is labeled 'Violoncello' and contains a bass line. A circled number '5' is positioned above the first staff. The tempo is marked 'Adagio'.

Example 9. T. Pegolotti: Trattenimento Duodecimo (second line)<sup>31</sup>

The musical score for Example 9 consists of three staves. The top staff is labeled 'Violino alternativo' and contains a melodic line. The middle staff is labeled 'Violino' and contains a similar melodic line. The bottom staff is labeled 'Violoncello' and contains a bass line. A circled number '10' is positioned above the first staff.

Pegolotti's *Trattenimenti* are important documents of a now lost practice of performing and reading basso continuo on the violin. In the title of the pieces, the collection asks for violin and cello instrumentation without any other continuo part. In the preface, the composer points out that the compositions might produce a thin sound if performed as they appear on the page. He proposes through examples that the violin, not the cello, fills out the inner voices as a solution. The *violino alternativo* written out by the composer

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<sup>30</sup> Ibid, 20.

<sup>31</sup> Ibid, 20.

uses double-stops to add other voices to the piece, even though there are no figures indicating it.

In another example from the same set (*Trattenimento Nono*), we see further evidence of the accompanying role that the violin might take at times. Pegolotti adds a note after the *Tempo di Gavotta* not to repeat the sections. Kubitschek points out that the reason for that is that “embellished repeats are written out.”<sup>32</sup>

Example 10. T. Pegolotti, *Trattenimento Nono* (opening bars)<sup>33</sup>  
*Tempo di Gavotta, e si fa una sol volta per parte*

The image displays three systems of musical notation for violin and cello. Each system consists of a treble clef staff (violin) and a bass clef staff (cello). The first system shows the initial four measures. The second system begins with a circled '5' above the first measure of the violin staff, indicating a repeat sign. The third system begins with a circled '10' above the first measure of the violin staff, indicating another repeat sign. The cello part features a complex, rhythmic accompaniment with many double-stops and sixteenth-note patterns.

The embellished written-out repeats are, however, in the cello line, and not in the soprano line. The impression that one has when listening to the above session is that the violin, not the cello is accompanying.

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<sup>32</sup> Ibid. Preface.

<sup>33</sup> Ibid, 14.

The writing of the embellishments, similar to the violin and cello textures of Corelli where sometimes the violin takes the lead and sometimes accompanies, draws our attention to the cello while the violin functions as a continuo line.

## 2. England: Nicola Matteis and Playford's Division Violin

Born in Italy, Nicola Matteis moved to London around 1670.<sup>34</sup> Besides being a virtuoso violinist, Matteis was also a composer and a guitarist. According to Roger North, his ability on the five-string guitar was such that he “had the force upon it to stand in consort against a harpsichord.”<sup>35</sup> As a pedagogue, he published a continuo method for the guitar<sup>36</sup> as well as collections of music for the violin and other instruments “fitted to all hands and capacities”<sup>37</sup> or “being all teaching songs made for his scholar, most of them transpos'd for the flute.”<sup>38</sup>

The success of his first publication of 1676 is clear in the number of editions that followed the first publication, with translation to the English language (1679) and addition of a second treble part (1703). In these publications, Matteis uses the violin in the same manner he would have used his guitar. Not only does he play the treble part, but

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<sup>34</sup> Peter Walls. "Matteis, Nicola (i)." *Grove Music Online*. Oxford Music Online. Oxford University Press, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/18087> (accessed August 13).

<sup>35</sup> Ibid.

<sup>36</sup> Nicola Matteis and John Carr. *The false consonances of musick or Instruction for the playing a true base upon the guitarre, with choice examples and cleare directions to enable any man in a short time to play all musicall ayres ... In four parts*. (London: J. Carr, 1682).

<sup>37</sup> Nicola Matteis, *Ayrs for the Violin: Preludes, Allmands, Sarabands, Courantes, Giges, Divisions and Double Compositions Fitted to All Hands and Capacities*. (Walsh: London, 1679) – English language edition, the original edition in Italian is from 1676.

<sup>38</sup> Nicola Matteis. *Collection of new songs: a through [sic] bass to each song for the harpsichord, theorbo or bass viol : being all teaching songs made for his scholar, most of them transpos'd for the flute The second book* (London: Walsh, 1699).

he also adds multiple-stops, often including notes below the melodic line, as well as sometimes providing a second voice in a fugal manner.

Example 11. N. Matteis, Second Book of Ayr's Sonata 1 in G<sup>39</sup>

**MUSICA - GRAVE**

Example 11 shows us examples of Matteis' use of double stops and his harmonic thinking. Another good example is his Fantasia for solo violin.

<sup>39</sup> In the original publication the bass and the violin part are not aligned or even in the same page. Example 11 was typed in notation software for the sake of analysis and to facilitate performance.



Example 12. N. Mattei, Solo Fantasia<sup>40</sup>



In this example we see Matteis writing for three voices as well and sequences of chords that would likely be arpeggiated. In a later treatise by Francesco Geminiani, *The Art of Playing on the Violin* (1751)<sup>41</sup>, we can see options for dealing with such passages<sup>42</sup>. Another 17<sup>th</sup> Century publication from England where harmonic thinking on the violin can be observed and learned is the *Division Violin*, published originally in 1685 by John Playford.<sup>43</sup> Although the collection is not by one single virtuoso composer and the pieces are not meant to deal with double- or multiple- stops, analyzing some of these divisions

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<sup>40</sup> Nicola Matteis, *Fantasia a Violino Solo del Sig. Matteis* (manuscript from the Sächsische Landesbibliothek – Staats – und Universitätsbibliothek Dresden, 1720?)  
<http://conquest.imslp.info/files/imglnks/usimg/9/94/IMSLP55443-PMLP114576-31209907X.pdf>  
(accessed August 13, 2013).

<sup>41</sup> Francesco Geminiani, *The Art of Playing the Violin, Op. 9* (London:Unknown Publisher, 1951).

<sup>42</sup> *Ibid*, 28 (Example XXI).

<sup>43</sup> Margaret Gilmore and John Playford, *The Division Violin: Containing a Collection of Divisions Upon Several Excellent Grounds for the Violin*. (London: Oxford University Press, 1982).



shows us how composers were always thinking from the bass. Also, we see several examples of double-stops in the literature (examples 13 – 15).

Example 13. J. Playford: The Division Violin (page 9)<sup>44</sup>

Example 14. J. Playford: The Division Violin (page 12)<sup>45</sup>

<sup>44</sup> Ibid, 9.

<sup>45</sup> Ibid, 12.

Example 15. J. Playford: The Division Violin (page 34)<sup>46</sup>

The image shows a page of musical notation titled "Prelude 54" by "M. Tho. Baltzar". The score is written for a single instrument, likely a lute or a similar stringed instrument, and is characterized by its extreme polyphony. It consists of eight staves of music, each containing a different voice. The notation is dense, with many notes and accidentals, and the voices are often written in a way that suggests they are being played on a single instrument with multiple strings. The key signature is one sharp (F#), and the time signature is common time (C). The overall texture is highly complex and intricate.

In this collection we can also see Playford borrowing techniques from other instruments, as some of these are adaptations from divisions originally for the viol.<sup>47</sup>

The first example shows us two lines from a variation on “Faronel’s Ground”, the same ground Corelli would use a few years later for his “La Folia”. The other two examples are similar in writing to the collections of sonatas by Henrich Ignaz von Biber and Johann Heinrich Schmelzer. The resemblance is not likely to be an accident: The composer, Thomas Baltzar – who lived the last decade of his life in England – was born in Lübeck. His compositions are clearly in the polyphonic tradition of German and

<sup>46</sup> Ibid, 34.

<sup>47</sup> For more information, see the preface to the Margaret Gilmore’s 1982 edition of *Division Violin* – some of the items in the collection also exist in keyboard and recorder versions.

Austrian composers of the period. A review from John Evelyn, who heard him in 1656, gives us a glimpse into his technique on multiple-stops. Evelyn says that Baltzar “plaid on that single instrument a full Consort, so as the rest [of the players], flung-downe their Instruments, as acknowledging a victory.”<sup>48</sup> Baltzar died very young and very few of his pieces survive, but he is credited with the introduction of high positions, chordal writing, and scordatura to the English violin school.<sup>49</sup>

### **3. France and violin duo literature: The *Violon par accord* of Joseph Bodin de Boismortier and the works of Luigi Boccherini**

In 1724 Joseph Bodin de Boismortier got a license for engraving music in France. The product of his engraving business made him both wealthy and a very unique case among composers of the time: Boismortier never had or needed patrons. By 1747, he published more than 100 works and his popularity was immense across genres.

In 1734, Boismortier published *6 sonates pour une flute traversiere, et un violon par accords, sans basse* Op. 51.<sup>50</sup> Often the translation found in modern editions and recordings as “Sonatas for Flute and Violin” overlooks the chordal accompanying role of the violin.

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<sup>48</sup> Peter Holman. "Baltzar, Thomas." *Grove Music Online. Oxford Music Online*. Oxford University Press, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/01921>. (accessed August 13, 2013)

<sup>49</sup> Ibid.

<sup>50</sup> Joseph Bodin de Boismortier, *6 sonates pour une flute traversiere, et un violon par accords, sans basse* Op. 51 (Paris: Boismortier, 1734).

Example 16. J.B. de Boismortier, Excerpt from the last line of Sonata 1's first movement<sup>51</sup>

Musical score for Example 16, showing two staves of music. The top staff is in treble clef and the bottom staff is in bass clef. The key signature is one sharp (F#) and the time signature is 3/4. The music features a complex melodic line in the upper voice and a more rhythmic accompaniment in the lower voice.

Example 17. J.B. de Boismortier, Opening of Sonata 2 (Vivace)<sup>52</sup>

Musical score for Example 17, showing five staves of music. The first two staves are labeled "SONATA Seconda" and "Vivace". The key signature is one sharp (F#) and the time signature is 3/4. The music features a complex melodic line in the upper voice and a more rhythmic accompaniment in the lower voice. The score includes dynamic markings "Piano" and "Forte" on the lower staves.

<sup>51</sup> Ibid, 1.

<sup>52</sup> Ibid, 5.

In an essay from 1780, Jean-Baptiste de la Borde wrote of Boismortier:

Boismortier appeared at a time when only simple and easy music was in fashion. This competent musician took only too much advantage of this tendency and devised, for the many, airs and duets in great numbers which were performed on the flute, the violins, oboes, bagpipes and hurdy-gurdies... He so abused his numerous clients that at the end one said “*Bienheureux Boismortier, dont la fertile plume Peut tous les mois, sans peine, enfanter un volume*”. (Happy is he Good Sir Boismortier, whose prolific quill each month, with almost no pain, conceives a new ditty at will.) Boismortier, for lack of a better answer to his critics, would always answer: “I am earning money”<sup>53</sup>.

La Borde was not the only critic of Boismortier work. It seems from the critique above that Boismortier was more concerned with his business than his music. That said, he would not likely publish anything that 1) could not be easily performed and 2) was outside to common practice or unorthodox technically. That means that the chordal approach we see in Op. 51 must not only have been mainstream, but likely a simplification of a possibly more virtuosic practice.

In Boismortier’s Op. 51, we see passages that are clearly written out continuo lines for the violin. The use of double- and multiple-stops is no different from the examples we see in the next section from the German solo repertoire.

Although Boismortier use of the term *violon par accords* is unique, he is not alone in writing repertoire for two *dessus* instruments. In France we can also see the practice in the works of several other composers such as Jean-Marie LeClair (Op.3), Michel Blavet (1744), Michel Pignolet de Monteclair (*Concerts*, C. 1725) and Jacques Aubert (Op. 16, 1734).<sup>54</sup>

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<sup>53</sup> Stéphan Perreau & Jean-Christophe Maillard, translated by Keith Anderson, *Joseph Bodin de Boismortier (1689-1755) Suites for Harpsichord & Flute*, Naxos Library. [http://www.naxos.com/mainsite/blurbs\\_reviews.asp?item\\_code=8.554457&catNum=554457&filetype>About%20this%20Recording&language=English](http://www.naxos.com/mainsite/blurbs_reviews.asp?item_code=8.554457&catNum=554457&filetype>About%20this%20Recording&language=English) (accessed August 13, 2013).

<sup>54</sup> Rudolf Rasch, “Luigi Boccherini’s Six Duets for Two Violins, Op. 3,” in *Boccherini studies Vol. 2 Vol. 2.*, ed. Christian Speck (Bologna: UT Orpheus, 2009), 28.

Rudolf Rasch points out in his essay on Luigi Boccherini's Op. 3 that in these violin duos "one of the two instruments presents a melodic line, the others a bass line or another form of accompaniment."<sup>55</sup> Rasch points out also that several Italian authors were writing specifically for two violins in the second half of the 18<sup>th</sup> Century and that "These duets mark themselves out as works specifically for two violins not only by their titles, but also by their idiomatic writing, which admits double stops and chords distributed over three or four strings, typically violinistic articulation, and an extensive use of the low register, in particular below *d'*."<sup>56</sup>

When analyzing the texture of Boccherini's duets, Rasch points out that there are three ways in which Boccherini explored duet textures<sup>57</sup> in his writing:

- 1) Bass line-like writing as we see in Baroque concertos
- 2) Double stops, especially in slow movements, resembling a realized continuo line and common in other publications of violin duos or sonatas for violin and cello
- 3) Broken chords played usually slurred, in the same manner we see later in quartet writing or measure 8 of the opening violin line of Ludwig van Beethoven's Op. 24 ("Spring").

Examples 18 to 24 compare Boccherini's duos with other pieces from violin literature.

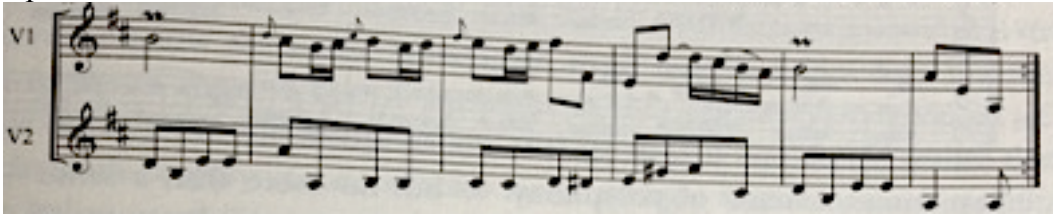
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<sup>55</sup> Ibid, 30.

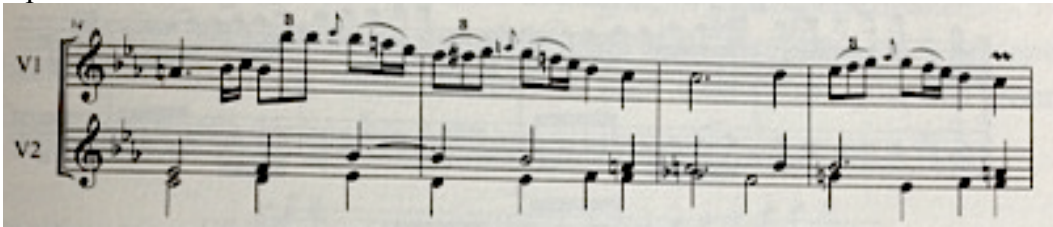
<sup>56</sup> Ibid, 30.

<sup>57</sup> Ibid, 37.

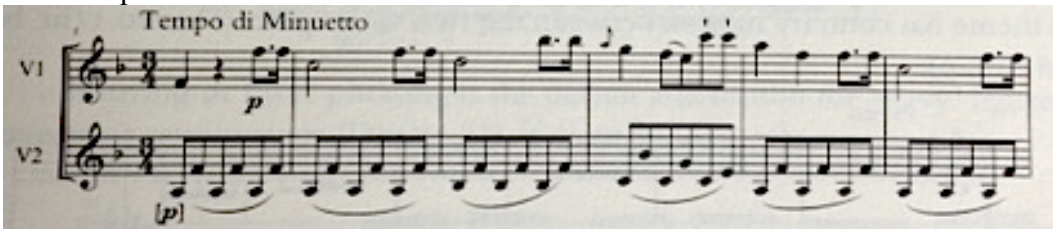
Example 18. Bass line-like accompaniment - L. Boccherini, Excerpt from Duet 6 Op.3<sup>58</sup>



Example 19. Double stops accompaniment - L. Boccherini, Excerpt from Duet 4 Op. 3



Example 20. Broken chord style accompaniment - L. Boccherini, Excerpt from Duet 2 Op.3



Example 21. Similar accompaniment to example 18 in the cello part of A.Vivaldi, Op.3 n. 6 (*L'estro armonico*)<sup>59</sup>

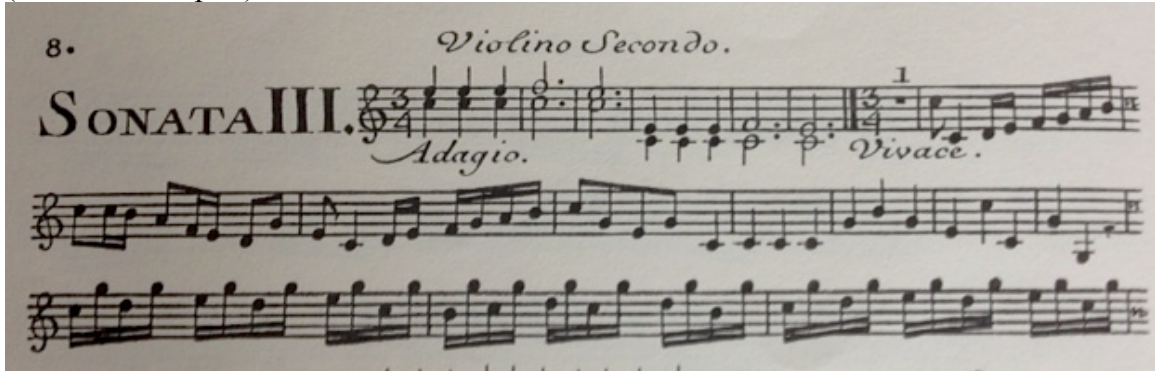


<sup>58</sup> Examples 18, 19 and 20 from Rasch's studies.

<sup>59</sup> Vivaldi, Antonio. *Violin Concerto in A minor, RV 356*. (Online Resource: Creative Commons) [http://conquest.imslp.info/files/imglnks/usimg/e/ee/IMSLP112508-PMLP126411-Vivaldi\\_a\\_minor\\_Rv\\_356\\_Score.pdf](http://conquest.imslp.info/files/imglnks/usimg/e/ee/IMSLP112508-PMLP126411-Vivaldi_a_minor_Rv_356_Score.pdf) (accessed August 13, 2013).



Example 22. Similar accompaniment to example 19 in J. M. LeClair, Op.3  
(second violin part)<sup>60</sup>



Example 23a and 23b. Similar accompaniment to example 20 in the piano part  
(23a) and, in the violin part (23b) of L. v. Beethoven, “Spring” sonata<sup>61</sup>

18 *Allegro*  
SONATA II.

23b.

SONATA I. *Allegro* *Violino*

<sup>60</sup> Jean-Marie Leclair, *Sonates a Deux Violins Sans Basse, Troisieme Ouvre: On Peut Jouer Ces Sonates a Deux Violes*. (Paris, 1730. Facsimile, New York: Performers' Editions Reprint, 1990).

<sup>61</sup> Louis van Beethoven. *Sonate pour le Pianoforte avec un Violon* (Milan: Ricordi, 1802).



In examples 18 to 23, we see that chordal approach on violin is not only a feature of virtuosic passages or for the purpose of accompanying another instrument: chordal approach is pervasive in violin repertoire, from chamber to solo music.

Next, we will explore German composers and see chordal approach and accompaniment on the violin applied to solo music played without bass.

#### **4. German violin literature: Johann Sebastian Bach and his influences**

In the solo violin literature, Johann Sebastian Bach's *Sei Solo a Violino senza Basso accompagnato* represent not only some of the best of the Baroque and German solo literature, but the best of violin writing even today, almost 300 years after the completion of the set in 1720. The set was only published and available to the general public over 50 years after Bach's death in 1750<sup>62</sup>.

Since their composition, unaccompanied violin music has seen all sorts of changes and extended techniques, from the caprices of Pietro Locatelli and Niccolò Paganini, to the solo works of Béla Bartók and Eugène Ysaÿe. But no other composer has created a collection of more than two hours of music where the violin stands alone and self-sufficient.

The melodic line, masterfully intertwined with the harmony, produces lines that sound like improvised preludes as well as fugues with parts in as much as four voices.

According to his son, Carl Philip Emanuel Bach, J.S. Bach was a master of the violin:

In his youth, and until the approach of old age, he played the violin cleanly and penetratingly, and thus kept the orchestra in better order than he could have done with the harpsichord. He understood to perfection the possibilities of all stringed instruments. This is evidenced by his solos for the violin and for the violoncello

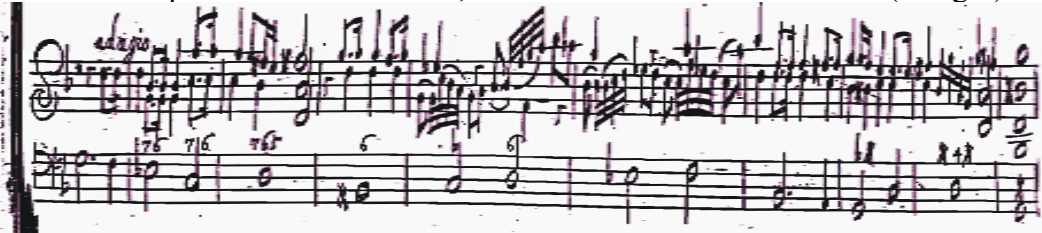
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<sup>62</sup> Nikolaus Simrock in Bonn first published the set in 1802 as Johann Sebastian Bach, *Six Solos for Violin without Bass Accompaniment* (Bonn: Simrock, 1802).

without bass. One of the greatest violinists told me once that he had seen nothing more perfect for learning to be a good violinist, and could suggest nothing better to anyone eager to learn, than the said violin solos without bass.<sup>63</sup>

Although J.S. Bach's approach to chordal playing on the violin is unmatched, it cannot be attributed only to his own skill and genius. The root for German polyphonic music for violin predates J. S. Bach's many years in the works of Johan Heinrich Schmelzer (ca. 1620 – 1680), Heinrich Ignaz Franz Biber von Bibern (1644 – 1704), Johan Jakob Walther (1650 – 1704) and others.

Example 24. J.H. Schmelzer, *Unarum Fidium* 1664, Sonate 4 (Adagio)<sup>64</sup>



Example 25. H.I. Biber, *Sonatae a Violino Solo* 1681 (pag. 10)<sup>65</sup>

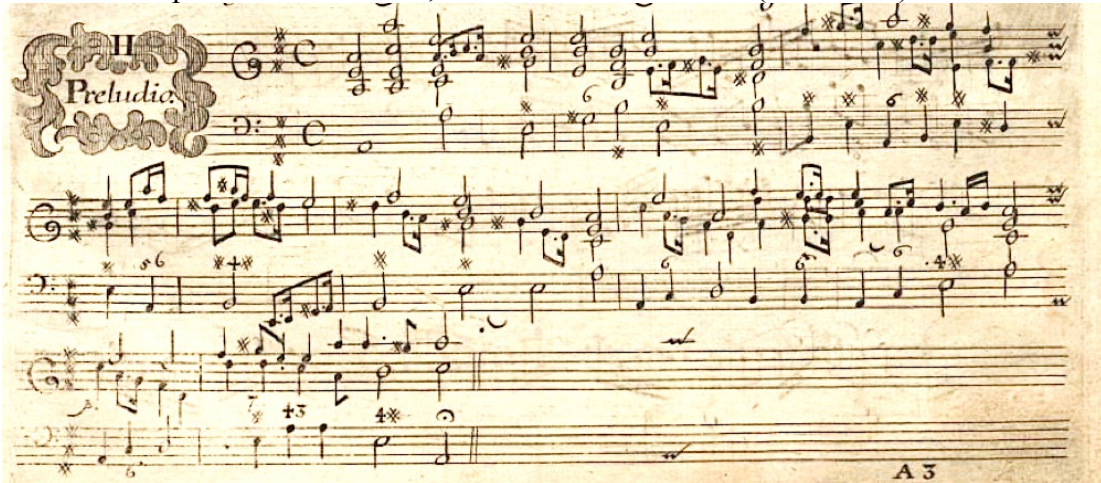


<sup>63</sup> Written in letter from 1774 to Johann Nicolaus Forkel. Translated in: Hans T. David and Arthur Mendel, eds., *The Bach Reader: A Life of Johann Sebastian Bach in Letters and Documents*, revised, with a supplement (New York: W.W. Norton & Company, Inc., 1966), 277.

<sup>64</sup> Schmelzer, Johann Heinrich. *Unarum Fidium* (Nuremberg: Michael Endter, 1664). <http://conquest.imslp.info/files/imglnks/usimg/d/d4/IMSLP279731-PMLP454119-Schmelzer - Sonatae Unarum Fidium.pdf> (accessed August 13, 2013).

<sup>65</sup> Heinrich Ignaz Franz von Biber, *Denkmäler der Musik in Salzburg. Faksimile-Ausgaben*. Vol. 3, *Sonatae Violino Solo: Salzburg 1681* (Bad Reichenhall: Comes Verlag, 1991).

Example 26. J. J. Walther, Hortulus Chelicus 1688 (Preludio 2)<sup>66</sup>



Rudolf Aschmann, in *Das Deutsche polyphone Violinspiel im 17<sup>th</sup> Jahrhundert*<sup>67</sup>, traces the first polyphonic writing specific to violin in Germany to a tablature written 1613 by Wolff Gerhard. The double stops reproduced in example 27 occur in general at the end of the pieces in the collection of songs and dances.<sup>68</sup>

Example 27. Excerpt from piece by W. Gerhard (1613)<sup>69</sup>



Colleagues around J.S. Bach, such as violinist Johan Georg Pisendel, may have also influenced him in writing the Sonatas and Partitas. It is even likely that J.S. Bach heard Pisendel's own Solo Sonata in A minor when they worked together.

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<sup>66</sup> Johan Jakob Walther, *Hortulus chelicus* (Mainz, 1688 Facsimile Reprint, New York: Johnson, 1981).

<sup>67</sup> Rudolf Aschmann, *Das deutsche polyphone Violinspiel im 17<sup>th</sup> Jahrhundert: Ein Beitrag zur Entwicklungsgeschichte des Violinspiels* (Zürick: L. Speich, 1962).

<sup>68</sup> The *Lieder and Tänze* by Gerhard Wolff can be found as Ms. 14796 in the Nürnberger Stadtbibliothek.

<sup>69</sup> Aschmann, 17.



Example 28. J.G. Pisendel, Solo Sonata (c.1720)



In addition to predecessors in the German literature and colleagues, J.S. Bach was also familiar with Italian and French schools and styles. We see evidence of that in his compositions and especially in adaptations and arrangements, such as the transcriptions for organ of violin concertos by Antonio Vivaldi<sup>70</sup> written during his employment at Weimar. J.S. Bach's BWV 594 in C Major, a transcription of Vivaldi's *Il Grosso Mogul*, RV207 (Op. 7 n. 11) shows us how J.S. Bach was fully aware of the chordal violin writing of Vivaldi's concertos. The transcription is an interesting look into how J.S. Bach distributes the violin solo line among G and F clefs, and also how he translates to the

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<sup>70</sup> BWV 593, 596 and 594 are transcriptions from Vivaldi's *L'estro armonico* (concertos n. 8 and 11 – RV 522 and 565) and *Il Grosso Mogul* (Concerto n. 11 from Op. 7 – RV 208) respectively.

organ the basset practice<sup>71</sup>, when the violins and violas assume the role of the continuo section in the accompaniment.

Example 29. A. Vivaldi, *Il Grosso Mogul*, Excerpt 1<sup>72</sup>

25 *f* *b* *\*)*

*\*)* Manoscritto: P. R. 964

30 *(mp)* *(mp)* *(mp)*

<sup>71</sup> Bassetto (Italian), Bassetchen or Bassetgen (German) as explained before, on page 10, was the practice of performing a bass line function on higher voices and instrument other than the traditional bass instruments.

<sup>72</sup> Antonio Vivaldi, *Il Grosso Mogul*, edited by Gian Francesco Malipiero (Milano: G. Ricordi, 1960).

Example 30. J. S. Bach, Excerpt from Organ Adaptation BWV 594<sup>73</sup>

The image displays a musical score for an organ adaptation of J.S. Bach's BWV 594. It is organized into three systems. The first system shows the right and left hands of the organ. The second system includes the 'Rückpositiv' (left hand) and 'Oberwerk' (right hand) registers. The third system continues the organ parts.

The opening violin solo starts in m. 26 in the original version (the second line of the organ version in example 30). We can see that Vivaldi treats the violin as a lower instrument, such as a cello, adding the bass lines on the top parts. Later, in examples 31 and 32, we can see how J.S. Bach splits the violin part in two hands in the organ version, adapting the effect given by distance between open strings and registers in the violin line.

<sup>73</sup> Johan Sebastian Bach, *Il Grosso Mogul* adaptation for Organ BWV 594, Bach Gesellschaft Ausgabe, Band 38 (Leipzig: Breitkopf & Härtel, 1891).

Example 31. A. Vivaldi, *Il Grosso Mogul*, Excerpt 2<sup>74</sup>

40

45

Example 32: J.S. Bach BWV 594, *Il Grosso Mogul*, Excerpt 2 (m. 40 starts in the m. 3 of line one)<sup>75</sup>

m. d.

<sup>74</sup> Antonio Vivaldi, *Il Grosso Mogul*, (Milano: G. Ricordi, 1960).

<sup>75</sup> J.S. Bach, *Il Grosso Mogul* BWV 594 (Leipzig: Breitkopf & Härtel, 1891).

Looking at the examples above, we can see that, besides J.S. Bach's ability and ingenuity as a composer, there is a lot of work that took place before the composition of the Sonatas and Partitas. By the time these pieces were written, the chordal techniques they employ on the violin had been used for over a century. Additionally, J.S. Bach had already studied all the possible uses of the violin, from solo to self-accompanied in upper and lower voices, seen in the transcriptions of *Il Grosso Mogul*<sup>76</sup> and other concertos.

### 5. Conclusions to the first chapter

Looking at all the evidence in the first chapter, we can conclude that:

- 1) Double and multiple stops were used from the very beginning of the violin literature in manuscripts, tablature and publications.<sup>77</sup>
- 2) Experimentation with multiple stops on violin, and borrowing of techniques and ideas from other instruments, such as keyboards and plucked instruments, was common throughout the Baroque.
- 3) Violinists, often multi-instrumentalists, had excellent knowledge of composition and basso continuo. There are several written-out examples of accompaniment lines on the violin.

In addition to these, we know that basso continuo was perhaps the most innovative change in music of the Baroque. It is the basis for understanding music in the period, from playing simple lines to improvising single and polyphonic lines.

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<sup>76</sup> *Il Grosso Mogul* transcriptions are c. 1716.

<sup>77</sup> Peter Allsop argues that the use of multiple stops is likely to be limited in the early publications in Italian music due to the difficulties in printing technology. In Peter Allsop, 'Violinistic Virtuosity in the Seventeenth Century: Italian Supremacy or Austro-German Hegemony?' *Il Saggiatore Musicale*, III 1996, pp. 233–258.



Several treatises and methods exist for the violin dating to early Baroque<sup>78</sup>, but no single method addressed directly the issue of learning basso continuo on the violin. On the other hand, continuo-like writing is present in second violin lines in methods and compositions throughout the Baroque.

There are several advantages to learning figured bass and being able to realize harmony on the violin. In addition to the direct informative role in performing and teaching music of the Baroque period, the knowledge also applies to music written later, especially in the Classical and Romantic periods. From orchestral parts to chamber music, continuo-like writing is present throughout the violin literature.

Additionally, the concepts of harmony present in basso continuo practice can be useful to students and professionals to develop improvisatory skills needed to perform not only Baroque, but many types of music.

In Chapter 2, we will explore different approaches for learning basso continuo practice on the violin.

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<sup>78</sup> For selection of treatises, see the collection by Fuzeau, edited by Philippe Lescat, and Jean Saint-Arroman in the bibliography.

## CHAPTER 2

### FIGURE IT OUT: A PROPOSED APPROACH TO LEARNING BASSO CONTINUO ON THE VIOLIN

#### 1. Technical considerations: Become acquainted with basic triads and their functions on the violin

This chapter will address issues of learning chords on the violin. In the preface of a recent book on double-stops by the famous violin teacher Dr. Roland Vamos, Rachel Barton-Pine, world-renowned violinist and former student of Dr. Vamos writes:

Vamos' double-stop exercises fill a void in the literature of technical exercises for violinists and violists. Today there are many classic books with thirds, sixths, octaves, etc., by such composers as Schradieck, Sevcik, Flesch, and Dounis. However, none of these wonderful collections features a systematic series of fixed double-stops that enables the aspiring violinist or violist to practice and master every possible combination of finger patterns across two strings without shifting.<sup>1</sup>

Later, we read in the preface by Dr. Vamos that the objective of the method is “the development of a strong left hand” and that “these exercises, when practiced slowly and carefully, should also help to develop a keen sense of pitch and intonation.”<sup>2</sup>

Although Dr. Vamos' work differs from the traditional methods for violin described by Ms. Barton-Pine, it does not address the teaching of harmony on the instrument.

As classical musicians we often have training in theory, ear training and instruction on keyboard at the undergraduate or graduate level. Using a keyboard as a tool to learn theory, ear training or continuo is not only useful but also desirable, as there are no limits on the possibilities of chordal inversions and voicing. However, a very small

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<sup>1</sup> Roland Vamos, *Exercises for the Violin in Various Combinations of Double-Stops (for Violin)* (New York: Carl Fischer, 2012), 4.

<sup>2</sup> Ibid, 3.

percentage of string players today actually attain a level of proficiency on the keyboard that allows them to use it as a tool or accompany other instruments. Besides, even if a string player happens to be proficient on the keyboard, this ability does not necessarily transfer to accompanying another instrument using the violin instead. Neither does harmonic knowledge and familiarity with keyboard automatically help with performing harmony and improvising on the violin. The player also needs to take the time to learn the skill in the context of technical abilities (or handicaps?) of the instrument.

Jazz violist and pedagogue Christian Howes observes in his method – *The Violin Harmony Handbook* – that “Many of us classically-trained string players thought that we had actually learned harmony and theory in our classical studies or our college performance degrees, but we never learned either to hear the chords, create melodies that fit over the chords, or even how to play the chords on our instrument.”<sup>3</sup> Mr. Howes’ method is unique in the sense that it develops the skill of playing multiple stops on the violin and, at the same time it has the goal of using the violin as a tool for theory and ear training. In the section “Build Harmonic Proficiency” of his method, he addresses the issue of “internalizing basic triads on your instrument” and sets-up a detailed method starting with single notes that can themselves imply a chord. He then proceeds to double-, triple- and finally quadruple-stops, breaking them down in spread or close voicings. The examples below are from his book.<sup>4</sup>

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<sup>3</sup> Christian Howes, *The Violin Harmony Handbook*. Available online for download at [www.christianhowes.com](http://www.christianhowes.com); Internet: accessed 10 May 2009.

<sup>4</sup> Ibid, *G Major Chord Violin Voicing* section.

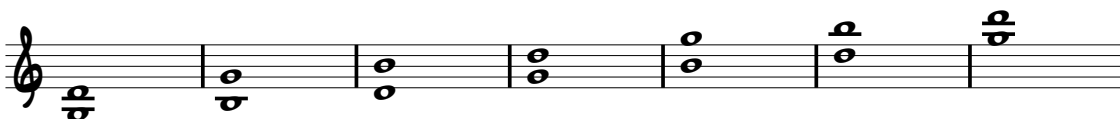
Example 1. Step 1: Single Notes (implies a chord)



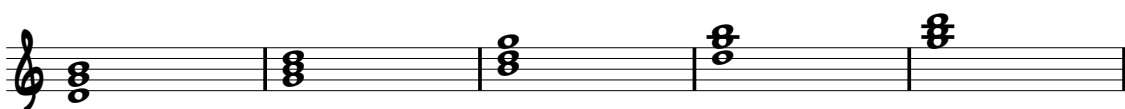
Example 2. Step 2: Double Stops – Close Voicings (3<sup>rd</sup> and 4<sup>th</sup> intervals)



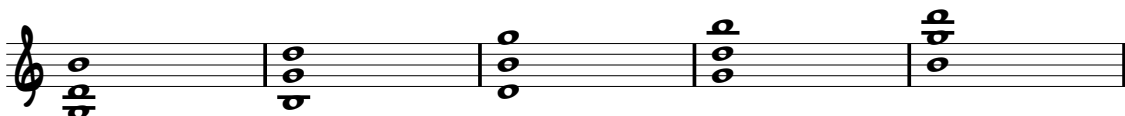
Example 3. Step 3: Double Stops – Spread Voicings (5<sup>th</sup> and 6<sup>th</sup> intervals)



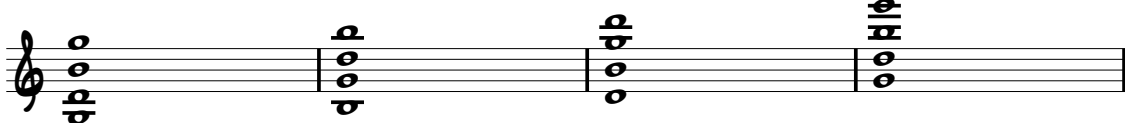
Example 4. Step 4: Triple Stops – Close Voicings



Example 5. Step 5: Triple Stops – Spread Voicings



Example 6. Step 6: Quadruple Stops – Spread Voicings



Up until Step 5, Mr. Howes' advises the players not to double any voices. Starting with step 6, double only one voice.<sup>5</sup>

Now, one could also adapt and expand the above exercises to learn continuo in the following manner: Starting with the triple-stops, first get your ears used to the sound of the perfect or natural chord (i.e. the chord that has all the voices) and identify the

<sup>5</sup> Mr. Howe's doubles the 3<sup>rd</sup> in the four-voice chord, which is not ideal in terms of playing continuo, but for the sake of learning to listen to different voicings, it is a good exercise.

inversions of the chord. We will notice that the last two bars of the exercise represent the same inversion as the first two bars transposed up an octave. Let us drop these bars and rearrange the chords according to their inversions and their figures in continuo:

1)  $\frac{5}{3}$  chord (with the 3<sup>rd</sup> and 5<sup>th</sup> above the bass – known today as a root position).

2)  $\frac{6}{3}$  chord (with the 3<sup>rd</sup> and 6<sup>th</sup> above the bass – known today as first inversion).

3)  $\frac{6}{4}$  chord (with the 4<sup>th</sup> and 6<sup>th</sup> above the bass – known today as second inversion).<sup>6</sup>

We are left with two possible voicings for each inversion as shown in Example 7a.<sup>7</sup>

Example 7a. Chords on the Violin with Different Voicings (G Major)

$\frac{5}{3}$ chord (root position):		$\frac{6}{3}$ chord (1st inversion):		$\frac{6}{4}$ chord (2nd inversion):	
closed voicing	spread voicing	closed voicing	spread voicing	closed voicing	spread voicing
$\frac{5}{3}$	$\frac{3}{5}$	$\frac{6}{3}$	$\frac{3}{6}$	$\frac{6}{4}$	$\frac{4}{6}$

figures description based of Dandrieu's method

Naturally, there are more combinations on the violin besides the above examples that can be created to express these figures, but for the purpose of getting your ear acquainted with the way a certain chord sounds, it is easier to start with chords that include all the notes and can be played in any key, major or minor. Once that is mastered and internalized both by hands and ears, it will be much easier to start realizing chords by

<sup>6</sup> For the purpose of this study and the sake of clarity for modern players, I will be using both baroque notation for chords ( $\frac{5}{3}$ ,  $\frac{6}{3}$  and  $\frac{6}{4}$ ) and their modern counterparts (root, first and second inversion) when referring to chord positions.

<sup>7</sup> For a full explanation on continuo figures and notation, see An Harmonic Précis in Nigel North, *Continuo Playing On the Lute, Archlute, and Theorbo* (Bloomington: Indiana University Press, 1987), 27-38.


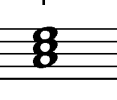

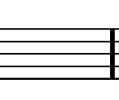
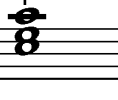
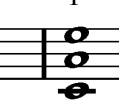
implying them with less than three notes or using combinations for playing over a bass line.

## 2. Drawing from literature 1: Using methods not originally for violin: Jean-François Dandrieu

The natural next step is to practice the patterns described in the first section of this chapter in other keys in both major and minor forms. For this purpose and also for the purpose of forcing one to think before playing rather than simply following patterns on a page, we shall create a routine of practice based on the above exercises that includes writing and analysis as well as playing.

In Example 7b (now in Ab major, so that the fingering can apply to any key since the example does not use open strings), we will write down the chords and analyze the chords we created using both violin fingerings and also full continuo figures, an idea borrowed from the continuo method of Jean-François Dandrieu.<sup>8</sup>

Example 7b. Chords on the Violin with Different Voicings (Ab Major)

fingering:	$\frac{1}{2}$	$\frac{2}{1}$	$\frac{1}{2}$	$\frac{2}{2}$	$\frac{1}{3}$	$\frac{3}{2}$
	$\frac{4}{4}$	$\frac{1}{1}$	$\frac{4}{4}$	$\frac{1}{1}$	$\frac{4}{4}$	$\frac{1}{1}$
						
full figure:	$\frac{5}{3}$	$\frac{3}{5}$	$\frac{6}{3}$	$\frac{3}{6}$	$\frac{6}{4}$	$\frac{4}{6}$
(root:)	(8)	(8)	(3)	(3)	(5)	(5)

From Example 7b, once we get used to the particular fingering pattern of each chord, we can transpose the chords to other keys much as jazz players do with patterns or guitar players with chords from a tablature.

<sup>8</sup> Dandrieu, Jean François. *Principes de l'accompagnement du clavecin*. Genève: Minkoff Reprint, 1972.

One of the most important aspects of learning to play continuo is to “build up an instant reaction to the figures”<sup>9</sup> In order to build that we shall now turn to the full figured writing borrowed from Dandrieu’s method. From only the bass and the second note, we should be able to recognize and play the last note of the chord using the full figure. The next step is to use only the full figure as a cue, and finally be able to play the chord using the usual writing of the figure as shown in Example 8:

Example 8. Continuo Exercise Adapted for Violin based on Dandrieu’s Method<sup>10</sup>

One note cue:

full figure:  $\begin{matrix} 5 \\ 3 \end{matrix}$   $\begin{matrix} 3 \\ 5 \end{matrix}$   $\begin{matrix} 6 \\ 3 \end{matrix}$   $\begin{matrix} 3 \\ 6 \end{matrix}$   $\begin{matrix} 6 \\ 4 \end{matrix}$   $\begin{matrix} 4 \\ 6 \end{matrix}$

full figure cue:

full figure:  $\begin{matrix} 5 \\ 3 \end{matrix}$   $\begin{matrix} 3 \\ 5 \end{matrix}$   $\begin{matrix} 6 \\ 3 \end{matrix}$   $\begin{matrix} 3 \\ 6 \end{matrix}$   $\begin{matrix} 6 \\ 4 \end{matrix}$   $\begin{matrix} 4 \\ 6 \end{matrix}$

no cue:

figure as seen in literature:  $\begin{matrix} 6 \\ 3 \end{matrix}$   $\begin{matrix} 6 \\ 3 \end{matrix}$   $\begin{matrix} 6 \\ 4 \end{matrix}$   $\begin{matrix} 6 \\ 4 \end{matrix}$

Dandrieu’s continuo method is by no means the only one that can be adapted to the violin.

In the next few sections we will also explore other methods, but this is proposed as a good way to start thinking in terms of figures rather than multiple-stops on a page.

<sup>9</sup> North, 28.

<sup>10</sup> Figures in continuo are usually notated starting with the top interval being the furthest away from the bass ( $\begin{matrix} 5 \\ 3 \end{matrix}$  or  $\begin{matrix} 6 \\ 4 \end{matrix}$  for instance) independently of which octave the note is being placed. However, Dandrieu in his method uses figurations such as  $\begin{matrix} 3 \\ 5 \end{matrix}$  or  $\begin{matrix} 4 \\ 6 \end{matrix}$  for the purpose of illustrating the exact distance he wants the beginning student to be played from the bass and in which order.

### **3. Technical Considerations 2: Contextualizing basic triads, implying chords and expanding harmonic vocabulary with the aid of technology: The V-I cadence and the dominant-seventh chord**

Now that we have worked on basic triads, we will proceed by contextualizing these chords and their inversions in common cadences. For a violinist, playing or implying full harmonies is not a simple task and, in order for it to be done properly, it requires careful planning and preparation, in addition to knowledge of style, and experience. For this reason we will start by playing triads upon a bass, rather than playing the whole chord.

Since one does not generally have the luxury of having an accompanist during practice time, we will use a simple device that has become increasingly more common, available and affordable today: recording technology.

Using recordings for educational purposes<sup>11</sup> or performing professionally<sup>12</sup> is not new or innovative - It has been used in both popular and classical traditions. Here, we will first produce a recording and then use it for accompanying and teaching ourselves continuo. For the next exercises we will also need to pay attention to basic voice-leading rules, such as contrary motion, avoiding parallel fifths and octaves, and appropriate doubling of notes. In order to prepare for that, we will turn again to Mr. Howes' method using another of his devices: *chord stacks*.

In order to practice voice leading, Mr. Howes proposes that we create a stack of notes over a harmonic sequence. This stack includes all possible notes within a chord that can be played in a certain range (Example 9). The idea is demonstrated below on a I-V-I

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<sup>11</sup> Jazz players have always used recordings to learn not only tunes, but also the language through transcribing and playing recordings slowly. Shinichi Suzuki's method for learning originally violin (and now also other instruments such as viola, cello and piano) also employs the use of recording. Most recently full concerto accompaniments have become available to players through a company called *Music Minus One*.

<sup>12</sup> Through the use of loops and foot-pedals, we have seen all kinds of live effects during a live presentation. For an example on the violin, one could refer to the solo acts of founder and former member of Turtle Island String Quartet Tracy Silverman as well as bluegrass fiddler Casey Driessen.



cadence (tonic – dominant – tonic). Example 9 also provides the basic bass line to be recorded and used as a playback during practice.

Example 9. Chord Stacks on I-V-I Based on Exercises by C. Howes.

The image shows two staves of music. The top staff is labeled 'chord stack' and the bottom staff is labeled 'Bass'. Both staves are in the key of G major (one sharp). The chord stack consists of three chords: I (G major), V (D major), and I (G major). The bass line consists of three notes: G (quarter note), D (quarter note), and G (quarter note). The notes are written in a simple, vertical style.

From Example 9, starting with the first note on G-string, we will try several possibilities of playing or inferring the chords on the violin. Due to limitations of the violin, we will not deal at first with the rules of contrary motion, doubling of notes or playing perfect chords. However, we will observe the resolution of the 3<sup>rd</sup> of the V chord to the root of the I chord and having the 3<sup>rd</sup> in the last chord. Example 10 isolates all the chords tones that can be played on each string with the purpose of helping us find combinations that work on the violin.

### Example 10. Chord Tones Isolated by Chord and Strings

Isolating chord tones according to violin strings on the I chord

Isolating chord tones according to violin strings on the V chord

Example 11 shows all the technically possible chords on the violin (in 1<sup>st</sup> position), starting with the lowest note of each chord stack. In Example 11, The G major chord will be a  $\frac{5}{3}$  chord (root position) and the D major a  $\frac{6}{4}$  chord (second inversion). The brackets pair the very first G major chord with all the possible D major chords. We will apply this idea to this chord as well as all the other chords in  $\frac{5}{3}$  (root position) in the next examples.

### Example 11. Pairing of Chords

From example 11, the next step is creating a chart of possible chord progressions (example 12, 13, 14 and 15).

### Example 12. Progressions Derived from Example 11

Possible progressions with root position tonics 1

Example 13 consists of two systems of musical notation. Each system has a treble clef staff and a bass clef staff. The key signature is one sharp (F#). The first system shows three measures: I-V-I, I-V-I, and I. The second system shows four measures: I-V-I, I-V-I, I-V-I, and I. Chords are shown in root position in the bass staff and with their constituent notes in the treble staff.

Example 13. Progressions Derived from Example 11 (continued)

Possible progressions with root position tonics 2

Example 14 consists of two systems of musical notation, identical in structure to Example 13. Each system has a treble clef staff and a bass clef staff. The key signature is one sharp (F#). The first system shows three measures: I-V-I, I-V-I, and I. The second system shows four measures: I-V-I, I-V-I, I-V-I, and I. Chords are shown in root position in the bass staff and with their constituent notes in the treble staff.

Example 14. Progressions Derived from Example 11 (continued)

Possible progressions with root position tonics 3

Example 15. Progressions Derived from Example 11 (continued)

Possible progressions with root position tonics 4

Now, applying the same principle above, we will generate a chart going from the  $\frac{6}{3}$  chord (first inversion) – starting on the second note of the stack – to the same  $\frac{6}{4}$  chord (second inversion). The next example is in  $A^b$  major - although a less common key used on violin literature, it eliminates open strings and forces us to find a fingering pattern that we can work with other keys and positions as well.

Example 16. Progressions in Ab Major (First to Second Inversion)

Ab major - first inversion      Eb major - second inversion

The image shows two systems of musical notation. The first system consists of a treble clef staff with a key signature of three flats (Ab major) and a bass clef staff. The treble staff contains two measures of chords in first inversion (Ab major) and two measures of chords in second inversion (Eb major). The bass staff contains corresponding single notes for each chord. The second system is identical to the first but with a different chord arrangement.

Example 17. Progressions Derived from Example 16

The image shows two systems of musical notation. Each system consists of a treble clef staff and a bass clef staff. The treble staff contains chords with Roman numerals I and V written below them. The bass staff contains single notes. The first system shows a sequence of I-V-I-V-I-V-I. The second system shows a sequence of I-V-I-V-I.

Example 18. Progressions Derived from Example 16 (continued)

The image shows two systems of musical notation, identical in structure to Example 17. Each system consists of a treble clef staff and a bass clef staff. The treble staff contains chords with Roman numerals I and V written below them. The bass staff contains single notes. The first system shows a sequence of I-V-I-V-I-V-I. The second system shows a sequence of I-V-I-V-I.

Example 19. Progressions Derived from Example 16 (continued)

The first system of Example 19 consists of two staves in a key signature of three flats (B-flat major/C minor). The upper staff contains six chords: a first inversion tonic triad (I), a second inversion dominant triad (V), a first inversion tonic triad (I), a first inversion tonic triad (I), a second inversion dominant triad (V), and a first inversion tonic triad (I). The lower staff contains six notes: a whole note C3, a half note G2, a whole note C3, a half note G2, a whole note C3, and a half note G2.

The second system of Example 19 consists of two staves in a key signature of three flats. The upper staff contains five chords: a first inversion tonic triad (I), a second inversion dominant triad (V), a first inversion tonic triad (I), a first inversion tonic triad (I), and a second inversion dominant triad (V). The lower staff contains five notes: a whole note C3, a half note G2, a whole note C3, a half note G2, and a whole note C3.

Example 20. Progressions Derived from Example 16 (continued)

The first system of Example 20 consists of two staves in a key signature of three flats. The upper staff contains six chords: a first inversion tonic triad (I), a second inversion dominant triad (V), a first inversion tonic triad (I), a first inversion tonic triad (I), a second inversion dominant triad (V), and a first inversion tonic triad (I). The lower staff contains six notes: a whole note C3, a half note G2, a whole note C3, a half note G2, a whole note C3, and a half note G2.

The second system of Example 20 consists of two staves in a key signature of three flats. The upper staff contains four chords: a first inversion tonic triad (I), a second inversion dominant triad (V), a first inversion tonic triad (I), and a second inversion dominant triad (V). The lower staff contains four notes: a whole note C3, a half note G2, a whole note C3, and a half note G2.

Lastly, and still using the same idea, we will go from the  $\frac{6}{4}$  chord (second inversion) of the tonic to the  $\frac{5}{3}$  chord (root position) of the dominant.

Example 21. Progressions in Ab Major (Second Inversion to Root)

Ab major - second inversion      Eb major - root position

Example 22. Progressions Derived from Example 21

I   V   I   I   V   I   I   V   I

I   V   I   I   V   I

Example 23. Progressions Derived from Example 21

I   V   I   I   V   I   I   V   I

I   V   I   I   V   I

Example 24. Progressions Derived from Example 21

Example 24 consists of two systems of musical notation. Each system has two staves. The top staff is in treble clef with a key signature of three flats (B-flat, E-flat, A-flat) and contains three measures of chords. The bottom staff is in bass clef and contains three measures of bass notes. The first system shows a sequence of chords: I, V, I, I, V, I, I, V, I. The second system shows a sequence of chords: I, V, I, I, V, I.

Example 25. Progressions Derived from Example 21

Example 25 consists of two systems of musical notation, identical in structure to Example 24. Each system has two staves. The top staff is in treble clef with a key signature of three flats and contains three measures of chords. The bottom staff is in bass clef and contains three measures of bass notes. The first system shows a sequence of chords: I, V, I, I, V, I, I, V, I. The second system shows a sequence of chords: I, V, I, I, V, I.

The next step is to play through all these chords paying attention to fingering patterns and their sound qualities asking the following questions:

- 1) Do the chords work technically (are they possible) on the violin?
- 2) Do they work in terms of voicing? (If not, why not?)
- 3) Can we make the cadences work, even if they do not appear to work at first?

We will see that the answer for the first question is yes – all of them are possible.

Some we will recognize immediately from passages played before in violin literature and,



although some will be awkward or nearly impossible to play, they will prove important in the next session.

The answer to the second questions is similar to the first, but regarding the chords that are less natural or awkward there are two different possibilities for them not working: technical and musical. While some are obviously not good musical choices, others, although technically strange, do not sound necessarily sound bad, as we can see in example 26.

Example 26. Good and Bad Chord Voicing on the Violin

1. Good voicing for violin/found in literature      2. Musically awkward

1. Good voicing for violin/found in literature      2. Musically awkward

3. Technically awkward      4. Technically and Musically awkward

3. Technically awkward      4. Technically and Musically awkward

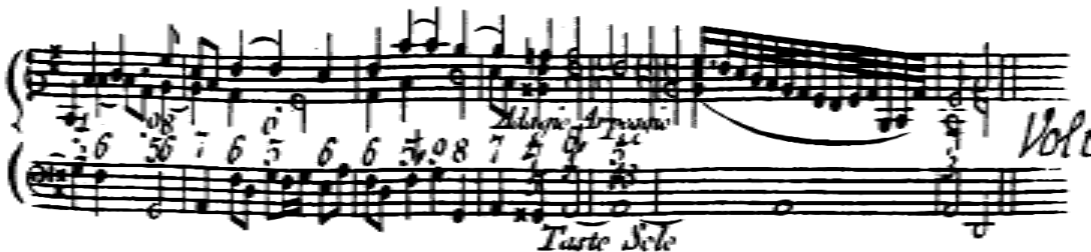
Looking at example 26, we see that there is no need to do anything to numbers one and three. Number three, although technically awkward, might serve us well in a situation where the accompaniment is required to go *subito* piano for instance. The seventh leap, as well as going to a lower region of the instrument, will take care of the effect. We can see

examples of that approach in improvisatory passages in the appendix to Corelli's 1713 edition published by Roger (example 27 and 28).

Example 27. A. Corelli, 1<sup>st</sup> Movement of Sonata 1, Op. 5, Page 3<sup>13</sup>



Example 28. A. Corelli, 3<sup>rd</sup> Movement of Sonata 1, Op. 5, Page 5<sup>14</sup>



Now we come to third question regarding Example 26, numbers two and four: Can we make them work? It cannot be done with harmonic vocabulary discussed so far, but if we were to include dissonant chords and introduce suspensions, which are not only common but expected in baroque practice the answer is: yes, we can. Normally in historical treatises the next step would be to introduce suspensions, as baroque cadences generally present opportunities to include these. However, for this particular study on how to perform harmony on the violin, we will first address performing chords that include the 7<sup>th</sup> degree as well as 4<sup>th</sup>s and 5<sup>th</sup>s which are not normally mainstream in traditional violin methods.

<sup>13</sup> Arcangelo Corelli. *Parte prima [-seconda]. Sonate a violino e violone o cimbalo... Opera quinta. Incisa da Gasparo Pietra Santa. Troisième édition où l'on a joint les agrèemens des adagio de cet ouvrage, composez par Mr A. Corelli comme il les joue. [Op. 5].* (Amsterdam: E. Roger, 1725), Page 3.

<sup>14</sup> Ibid.

## The dominant-seventh chord

The  $7\ 6\ 6\ 6$   
 $5\ 5\ 4$  or  $4$  chord, known today as the dominant-seventh chord, has four different  
 $3\ 3\ 3\ 2$

inversions. Example 29 shows the chord and the full fingering as well as the usual notation.

Example 29. Dominant-Seventh Chord and its Inversions on the Violin

full figure:  
and chord

As seen in  
literature:

The playing of a four-part  $\frac{5}{3}$  (root position) dominant-chord followed by a resolution to a three-part chord is not uncommon in the violin literature<sup>15</sup>.

Example 30. Four-part Dominant-Chord Resolving to Three-part Chord<sup>16</sup>

1. 2. 3. 4.

<sup>15</sup> Numbers 3 and 4 in example 30 are only for the purpose of showing the fingering for practice in different positions

<sup>16</sup> Notice that in numbers 2 and 4 on figure 30, the 7th resolves by step, but the 3rd of the chord only resolves on the tonic (a 7th lower) – the ears fill in the octave that would normally resolve by step.

There are a few more combinations that can be done in four voices, but since 1) they are specific to certain keys and 2) these combinations are not easily transposed, for the purpose of practice we will proceed in three voices. First, we will remove the 5th of the chord, which is the most common way that we see the chord spelled out in three-part harmony.

The most important chord tones for the dominant-seventh chord are the third and the seventh, which form the tritone that characterizes the chord and resolve onto the first (or octave) and the third of the chord respectively. In example 31 we will first present all the chord tones. Then, we will isolate them by strings as we did before, present all the possible tritone combinations, and resolve them by step.

Example 31. Dominant-Seventh Chord Tones and Resolutions by Step

Dominant-Seventh chord tones

Chord tones isolated by violin strings

G string                  D string                  A string                  E string

Resolution of the tritone

Working backwards, we will find a three-part voicing adding the tonic.

Example 32. Dominant-Seventh Chord in Three-part Harmony.

0            0            2            3            1            1  
 3            2            3            2            2            3  
 4            4            1            1            4            4

D major

1            1            2            3            1            1  
 3            3(2)        3            2            2            3  
 4            4            1            1            4            4

Eb major

Now, with the dominant-seventh chord in our vocabulary, we will revisit example 26 and address the third question we posed a few pages back. If we take the examples that are musically and technically awkward and replace the dominant chord with a dominant-seventh chord, we will see that we can resolve the awkwardness.

Example 33. Replacing the Dominant Chord for the Dominant-Seventh Chord  
 Musically awkward      —————>      Musically awkward resolved

Technically and musically awkward      —>      Technically and musically awkward resolved

Incidentally, we also resolved the technical awkwardness of playing fifths by a harmony that uses a hand contraction not unusual on the violin.

Next, we will investigate diminished chords and their relationship to the dominant-seventh chord as well as introduce suspensions, but before that we will turn our attention to another source we can use to develop our ears: cello treatises.

#### 4. Drawing from literature 2: Using methods not originally for violin: cello methods

By the end of the Baroque period, the ability of the cello to realize a bass line without any other instrument is clear not only in titles of pieces, but also from evidence in treatises dealing with the accompaniment of recitatives and instrumental music<sup>17</sup>. One useful exercise we can derive from these methods is practicing augmented and diminished chords, as well as seventh intervals. These intervals, although present in violin literature are generally not isolated and simplified for practice as we see in example 34 below from Piatti's *Cello-Schule*.

Example 34. A. C. Piatti, *Cello-Schule*, page 78<sup>18</sup>

Diminished Fifths. Verminderte Quinten

Augmented Fourths. Übermässige Quarten

The above exercises are useful for their simplicity, and for the fact that they are putting intervals in context from the very beginning of practice, training the hands and the ears to resolve diminished fifths and augmented fourths. Immediately after his exercise, Piatti

<sup>17</sup> Jean-Baptiste Baumgartner (1774-Hague) provides instructions on cello accompaniment and John Gunn prints in his method examples of how to do it from the works of Corelli and Handel. In the 19<sup>th</sup> C., as the cello takes a more important role in realizing continuo in opera, we can also see directions for practice in several French and German methods such as Baillot, Levasseur, Catel's *Methode de Violoncelle e de Basse d'Accompagnement* (Leipzig: Peters, 1805). Later in the 19<sup>th</sup> C., the great cellist Alfredo Carlo Piatti in his *Violoncello-Schule* refers to exercises by Romberg, Dotzauer and others when addressing double-stops.

<sup>18</sup> Alfredo Carlo Piatti, *Violoncello Schule* (Mainz: Schott, 1911), 78.

offers us another exercise, copied from Duport, which continues the idea of putting the combinations in context. In example 35, Duport offers a bass line that, when played together with a teacher or colleague puts the combinations into a broader harmonic context.

Example 35. Duport Exercise in A. C. Piatti, *Cello-Schule*, page 78<sup>19</sup>

The image shows a musical score for a cello exercise. It consists of two staves. The top staff is in bass clef and contains a complex exercise with many accidentals and fingerings. The bottom staff is in bass clef and contains a simpler bass line. The exercise is divided into two parts: E Major (E-Dur) and E Minor (E-Moll). The top staff has a key signature of one sharp (F#) and a time signature of common time (C). The bottom staff has a key signature of one sharp (F#) and a time signature of common time (C). The exercise is divided into two parts: E Major (E-Dur) and E Minor (E-Moll). The top staff has a key signature of one sharp (F#) and a time signature of common time (C). The bottom staff has a key signature of one sharp (F#) and a time signature of common time (C).

In examples 36 and 37<sup>20</sup>, both exercises are adapted for two violins. The bass line, as suggested before, can be also recorded for accompaniment during practice.

Example 36. A. C. Piatti, Example Adapted for Violin Practice

The image shows a musical score for a violin exercise. It consists of two staves in treble clef. The top staff contains a sequence of chords and rests. The bottom staff contains a sequence of chords and rests. The exercise is divided into two parts: E Major (E-Dur) and E Minor (E-Moll). The top staff has a key signature of one sharp (F#) and a time signature of common time (C). The bottom staff has a key signature of one sharp (F#) and a time signature of common time (C).

<sup>19</sup> Ibid.

<sup>20</sup> Notes in parenthesis are added for voice leading to avoid parallel movement in the outer voices.

Example 37. Duport, Example Adapted for Violin Practice

E major

E minor

One of the main difficulties of double-stops is that the positioning of the hand and fingers on the violin changes slightly depending on context. Intonation difficulty is often a product of lack of harmonic awareness rather than lack of technical skill. We can use exercise 37 to help with harmony and ear training by inserting the figured bass into it, first as full figures as we did in section 2 of chapter 2 and then as usually written.

Example 38. Example 37 in E Major with Added Figures<sup>21</sup>

E major

<sup>21</sup> In Example 38 and 39, notes in parenthesis are not considered the bass for the purpose of the figuring.



Example 39. Example 37 in E Minor with Added Figures<sup>22 23</sup>

E minor

Next, Piatti introduces us to fifths, sixths and sevenths in the same manner. Examples 40 and 41 are already adapted for the violin.

Example 40. Piatti, Fifths Exercises Adapted for the Violin

<sup>22</sup> Example 39 ends on a minor chord. This represents a later practice, as, in the early baroque, pieces would generally end on a major chord.

<sup>23</sup> On examples 38 and 39, we should notice two figurations that we did not see before: the diminished chord (4<sup>th</sup> bar, second beat of the E major example) and the 6-5 / 4-3 cadence (also in the E major example). We will deal with cadences later.

Example 41. Piatti Seventh Exercises Adapted for the Violin

The musical score for Example 41 consists of four staves. The top two staves are in treble clef, and the bottom two are in bass clef. The music is in 2/4 time. The first staff shows a sequence of chords: G major, F# minor, G major, F# minor, G major, F# minor, G major, F# minor. The second staff shows a sequence of notes: G, F#, G, F#, G, F#, G, F#. The third staff shows a sequence of chords: G major, F# minor, G major, F# minor, G major, F# minor, G major, F# minor. The fourth staff shows a sequence of notes: G, F#, G, F#, G, F#, G, F#. Fingerings are indicated by numbers 1-4 and 6. Some notes have a circled 6 above them, indicating a sixteenth note. The score ends with a double bar line.

Now, we will turn our attention to other cello methods, before we start analyzing examples 40 and 41.

The use of bow technique in an arpeggiated manner is common in string literature, from methods and treatises to chamber and solo passages. The tendency is to practice bow passages with the focus on the right hand, rather than on the left hand. As much as it is important to learn the bow skill, the harmonic component is often overlooked. This lack of awareness of the harmony is often noticeable in violin students (and sometimes professionals), when they face the challenge of accompanying another instrument in chamber music, from duos of violin and piano to string quartets and beyond.

In example 42, following the same idea of putting exercises into context that we observed in Piatti, we can see one possible solution that forces us to practice with harmonic awareness in mind.

Example 42. J. B. Breval, *Traité du Violoncelle*, Op. 42 page 136<sup>24</sup>

This example, from Jean-Baptiste Breval provides a violin solo below the bowing exercise as a reminder that the student should still be aware of the harmony, even when working on the right hand.

There are many ways in which the etude by Breval can be adapted to the violin. In example 43 we will transpose the part to the violin and add an extra line, where we will be writing the figured bass.

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<sup>24</sup> Jean-Baptiste Breval, *Traité du Violoncelle*, Op. 42. (Paris: Imbault, 1804). In Philippe Lescat and Jean Saint-Arroman, editors. *Violoncelle: Méthodes et Traités 1600-1800 – France. Vol II* (Paris: Editions J.M. Fuzeau, 1998), 136.

Example 43. J. B. Breval, Exercise Adapted for the Violin.

Violin 1

Violin 2 - Arpeggio/bow technique practice in context

Basso Continuo

6

6

6  
#4  
2

6  
4  
#5

(Example 43. Continued)

The musical score consists of three systems, each with three staves. The first system features a treble clef staff with a melodic line, a middle staff with a rhythmic accompaniment of eighth notes, and a bass staff with figured bass notation:  $\#3$ ,  $\frac{6}{4}$ ,  $\frac{7}{3}$ , and  $\frac{7}{5}$ . The second system continues the melodic and rhythmic lines, with the bass staff showing a  $\frac{6}{4}$  figure. The third system concludes the passage with a final melodic flourish and a chordal ending in the middle staff, with figured bass notation  $6$  and  $7$  in the bass staff.

Now that we are aware of the context and harmony, we can apply all sorts of arpeggio practice and different bow strokes in context. This way of practicing can also be applied to all sorts of passages in the literature. It can be useful in practicing another musician's line for a better understanding of the harmony in chamber and solo passages, as we will explore later in section 6.

The last cello method resource we will explore in this section is written information and examples on accompanying recitatives and instrumental music. In a method by several authors from 1805<sup>25</sup>, we come across instructions on how to use the cello as an accompaniment instrument. The section “Tenth article - On the accompanying Bass” opens with the following statement: “We have so far been treating the violoncello as a solo instrument, but now we want to take it to its original function and look at it as a accompanying bass. In this regard, it calls for its own exercises and a specially great skill to accompany the song below, as well as to play polyphonic music together with others.”<sup>26</sup>

The authors then proceed with a little discussion as to how, in order to accompany a recitative, one must be familiar with basso continuo practice and its rules. Also, they talk about knowledge and good taste in handling cadences, avoiding parallel motion of fifths and octaves, in addition to having the accompaniment in a manner that is appropriate to “the character of the role, of the situation, and the voice of the singer.”<sup>27</sup> After about one page of description, the text concludes: “Here are some examples on how to treat the figured bass on the violoncello, practice will teach the rest of it.”<sup>28</sup>

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<sup>25</sup> Baillot, Levasseur, Catel’s *Methode de Violoncelle e de Basse d’Accompagnement* (Leipzig: Peters, 1805). In Philippe Lescat and Jean Saint-Arroman Vol II, 242.

<sup>26</sup> *Zehnter Artikel - Vom begleitenden Bass: Wir haben bisher das Violonzell als Soloinstrument behandelt, jetzt wollen wir es zu seinen ursprünglichen Geschäft zurückführen und es aus blossen begleitenden Bass betrachten. In dieser Hinsicht fordert es eigne Uebungen und vorzüglich eine grosse Fertigkeit den Gesang zu begleiten, und in mehrstimmiger Musik mit andern zusammen zu spielen.* The French translation, instead of polyphonic music (*mehrstimmiger Musik*), uses chamber music (*la musique d’ensemble*).

<sup>27</sup> “...nach dem Character der Rolle, nach der vorgestellten Situation, und nach der Stimme des Sängers richtet.”

<sup>28</sup> “Hier sind einige Beispile, wie man aud dem Violozell den bezzifferten Bass behandeln soll, Uebung wird das übrige lehren.”

Example 44. Baillot, Levasseur and Catel's *Methode de Violoncelle e de Basse d'Accompagnement*, page 243.<sup>29</sup>

4.,  
Ecco ti giunta al fin donna in fe-li-ce a quel fatale istante, che teco perdi il genitor l'a.  
3 6  
mante  
Or che fatto ti sei della mia parte, u-sa vbi po-ni ogni ar-to, se l'in-  
ganno ha il suo effetto, se del Padrone io giungo ad esser sposata, da me chiedi e a-vrai; di casa tu sarai  
6 3  
pp  
il secondo Padrone, io tui prometto Io crederci, che la mia serva adesso, anzi per meglio dir, la mia Padrona.  
6 6 3  
pp 514

Example 45. Baillot, Levasseur and Catel's *Methode de Violoncelle e de Basse d'Accompagnement*, page 242<sup>30</sup>

3.,  
Indication - Execution -  
Bezeichnung - Ausführung -

<sup>29</sup> Ibid, 243.

<sup>30</sup> There are several other methods that display similar examples. For more on accompanying the recitative, see for instance, the Cello Methods of Stiasny and Dotzauer in Philippe Lescat and Jean Saint-Arroman Vol. VI.

Example 45 shows an example on how to roll chords on a cadence. Example 44 shows a way of preparing a part based on the figures. With experience and knowledge, the necessity of having to prepare a part fully might eventually diminish, but working without the instrument and taking the time to learn and master the harmonies of each passage is absolutely necessary. As Nigel North points out in his book, “without figuring, you may simply forget all the harmony which seemed so obvious at home.”<sup>31</sup> In conclusion, with another quote on figures from the same book : “In many ways, more thought, preparation and practice is needed for continuo than playing for a solo piece.”<sup>32</sup>

### 5. Technical Considerations 3: Diminished chords and most common suspensions

Diminished and augmented intervals in figured bass are written with the additions of flats (b) and sharps (#) in front of, or after the figures. They can also be expressed with a slash (/) through the figure or a plus sign (+).

Example 46a shows on the first 2 bars possible notations of augmented and diminished chords followed by Example 46b with the most common uses of the  $\frac{6}{4}$  chord.

Example 46a. Different Notations of Intervals

$\frac{6}{\#4/3}$  or  $\frac{6}{4\#3}$  or  $\frac{6}{4+3}$

$b5$  or  $5b$  or  $\bar{5}$

<sup>31</sup> North, 19.

<sup>32</sup> Ibid.



Example 46b. The  $\frac{6}{4}$  Chord in Context <sup>33</sup>

Common Contextual Use in Major Keys

Common Contextual Use in Minor Keys

Diminished chords, like dominant-seventh chords need to be resolved. Diminished chords usually occur over a sharpened bass note, either as part of the key signature, or a new sharp in the piece (Example 47a), or when a chord is moving to the next by a half step. Since diminished chords are composed of three stacked minor thirds, there are only three possibilities (with four inversions each) in equal temperament. All other possibilities will be enharmonic versions of the chords in example 47b.

<sup>33</sup> In the Minor Example, the suspension is added for voice leading purposes.

Example 47a. The Diminished Chord in Context

Example 47b. Diminished Chords Possibilities in Equal Temperament

Notations of the diminished seventh chord vary quite a bit. The most common short notations involve the  $b7$  and the  $\#6$ : The different notations are often contextual. Peter Williams writes, “The  $b7$  fingering often indicates that the note resolves downwards and the  $\#6$  fingering often resolves upwards; but the player should trust his ear more than his eye. Composers are not good orthographers.”<sup>34</sup>

<sup>34</sup> Peter Williams, *Figured Bass Accompaniment* (Edinburgh: Edinburgh University Press, 1987).

It is important for violinists to recognize several possible notations of the figure even though the possibilities are limited on the violin. In four voices, there is really only one possibility that works well for playing all four notes of the chord in every position on the violin, as we can see in the example 48.

Example 48. Four-part Diminished Chords on the Violin 1

In example 49 we see another option that can be played in every position. Although it is found in literature, the chord cannot be rolled as fast as the first option since the same finger is needed to play the bottom and top notes of the chord.<sup>35</sup>

Example 49. Four-part Diminished Chords on the Violin 2

The diminished chord can be inferred in two voices, as we saw in example 39, in the previous section. It can also be inferred in three voices by omitting the fifth of the chord, in which case it would look like the dominant-seventh chords in example 32. The

<sup>35</sup> It is possible to have an extreme contraction playing a fingering of 2 1 4 3 in example 49, but that would be extremely unusual and probably would not work in context. It is worth noticing that the fingering would not be uncommon in mandolin, which uses the same tuning and strings than the violin.

harmonic context of the chord would change, otherwise it would be just a dominant seventh, but the shape of the hand would be the same. These chords often go to a dominant chord, but they can also lead to the tonic.

Example 50. Diminished Chords in Context on the Violin

Before looking at examples from literature once more, we should address the two most common and expected suspensions that are part of the figured bass practice: the 4-3 and 7-6. In order for suspensions to happen, they must be prepared in the previous chord and resolved in the next one.<sup>36</sup> The 4-3 suspension should have the fifth degree in both chords and the 7-6 should have the third and never the fifth<sup>37</sup>.

Example 51 and 52 show the most common appearances of 4-3 and 7-6 on the violin literature.

<sup>36</sup> “All suspensions require three movements: preparation – suspension – resolution.” North, 42 – Although this quote from North, these rules can be found in almost all Baroque treatises on continuo playing.

<sup>37</sup> Ibid, 46.

Example 51. Common Suspensions on the Violin 1

4 - #

6 4 4 - 3

no preparation is required when the suspended note is already part of the previous chord

Example 52. Common Suspensions on the Violin 2

6 7-6 7-6

6 7-6

In example 53, we see combinations that can be derived from example 51.

Example 53. Common Suspensions on the Violin - Combinations

The image shows two systems of musical notation for violin suspensions. Each system consists of a treble clef staff with a melody and a bass clef staff with a bass line. Fingerings are indicated by numbers 1-4 and 5-7. Sharps (#) indicate accidentals.

System 1:  
 Treble staff: G4, A4, B4, C#5, B4, A4, G4.  
 Bass staff: G3, A3, B3, C4, B3, A3, G3.  
 Fingerings: 5/4 - # 7, 6/4, 5/4 - # 7.

System 2:  
 Treble staff: G4, A4, B4, C#5, B4, A4, G4.  
 Bass staff: G3, A3, B3, C4, B3, A3, G3.  
 Fingerings: 3-4, 4 - #, 5-6/3-4, 5/4 - # 7.

When the bass falls to the tonic by step as in example 54, we can also have a 5-6 figuring in the place of the 7-6.

Example 54. 5-6 Suspensions Replacing a 7-6 Suspension<sup>38</sup>

The image shows two systems of musical notation for violin suspensions. Each system consists of a treble clef staff with a melody and a bass clef staff with a bass line. Fingerings are indicated by numbers 1-4 and 5-7. Sharps (#) indicate accidentals.

System 1:  
 Treble staff: G4, A4, B4, C#5, B4, A4, G4.  
 Bass staff: G3, A3, B3, C4, B3, A3, G3.  
 Fingerings: 6, 5-6.

Now that we have covered the basics of figures, suspensions and cadences on the violin, we are ready to go once again to the literature. This time however, we will see what we can learn from violin methods and repertoire.

<sup>38</sup> See Example 67 for several examples of the above on Biber's *Passacaglia*.

## **6. Drawing from literature 3: learning common formulas and style from violin literature**

Methods not originally for the violin can be helpful in learning basso continuo practice on the instrument through their theoretical advice and methodology. However, basso continuo on the violin is also about exceptions, as chords need to fit the instrument and sound good. Performing continuo on the violin for understanding and analyzing the music, as a tool for improvisation, or even to accompany a performance or teaching, requires careful preparation and arranging of parts. On the violin, it will often require also the player to change and adjust octaves and even bass notes, in addition to find good voice leading and making the part appropriate to the situation.

The Baroque period, as with any period or style in music, has its own collection of clichés and formulas that characterize its language. Although we find differences in style and national schools, and within the language, there are some features that permeate the whole literature such as cadences and ground bass sequences. Throughout Chapter 2, we have seen some chords in context and common cadences. In Chapter 1, we encountered sequences, such as the grounds in the examples from Matteis, and the sequential bass lines of Corelli and Schmelzer. We will now turn our attention to these composers, and following the example of how Baroque composers and players learned their craft, we will copy the music, analyze it, learn from it, and arrange it for our purposes. We will start by looking at the one of the oldest grounds in western music, one very familiar to violinists: “La Folia”, in the version of Corelli. In example 55 we have the ground bass line in its simplest form.

Example 55. “La Folia” Ground with Figures



We will proceed by playing example 55 on the violin first as single notes. Then we will add chord tones above the bass line in chord stacks.

Example 56. “La Folia” Ground with Figures and Chord Stack

Now we are ready to create a continuo realization on the violin in multiple stops that includes the original bass by going from the nearest chord tone in one chord to the next.

Example 57. “La Folia” Ground Harmonized on the Violin

Next, analyzing the violin part of Corelli’s version, we will look for other ways in which we can infer the harmony in double-stops. On Table 1, we can see that there are several variations that use double or multiple stops. The table shows the variation number and how harmony is used in Corelli’s La Folia<sup>39</sup>.

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<sup>39</sup> Scales have not been considered as harmonic approach here, only double and multiple stops and broken chords.



Table 1. Corelli, “La Folia” Variations: Use of Multiple Stops

Variation number	Double or multiple stops?	Use of double or multiple stops	Other chordal approach ?	Use of other chordal approach
Theme	no	n/a	no	n/a
1	no	n/a	yes	broken thirds and fourths
2	no	n/a	yes	broken chords
3	no	n/a	no	n/a
4	yes	thirds	yes	broken chords
5	yes	thirds	yes	broken chords
6	no	n/a	yes	broken chords
7	yes	thirds	yes	broken chords
8	no	n/a	yes	broken chords
9	no	n/a	yes	broken chords
10	no	n/a	yes	broken chords
11	yes	thirds	no	n/a
12	no	n/a	yes	broken chords
13	no	n/a	yes	broken chords
14	no	n/a	no	n/a
15	yes	sixths, fifths, triple stops	no	n/a
16	no	n/a	yes	broken chords
17	no	n/a	no	n/a
18	no	n/a	yes	broken chords
19	no	n/a	no	n/a
20	yes	thirds, sixths	yes	broken chords
21	yes	thirds, fourths, fifths, sixths	yes	broken chords
22	yes	thirds, seconds, fifths, sixths	yes	broken chords

In table 1, we will notice that, with the exception of the theme and variations 3,14,17, and 19 (less than 25% of the piece), all other variations use some kind of chordal approach.

Analyzing them can provide us with simple tested solutions that work on the violin as for instance, a sequence of thirds.

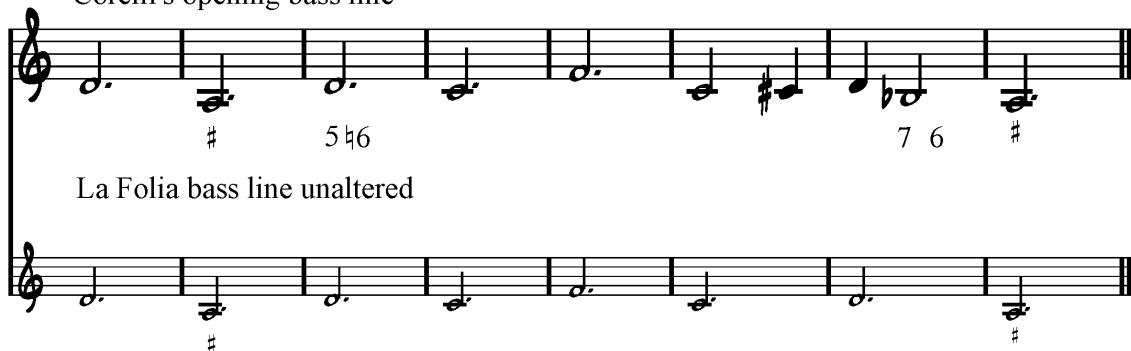
Example 58: Sequences of Thirds Present in Corelli Op. 5, “La Folia” Variations



Eight of the variations (numbers 4, 5, 7, 11, 15, 20, 21 and 22) use the figuration in example 58. If we isolate just the first three bars of example 58, we have a i-V-i cadence. The whole bass sequence would be (in modern notation): i-V-i-bVII-III-bVII-i-V or, in chords Dm-A-Dm-C-F-C-Dm-A. It is important to pay attention to as much information as possible in the early stages of learning so that one feels comfortable and creates a connection with the new language. This process will connect continuo notation to a language in which classically trained musicians are already expected to be trained.

Before looking at another example that works for violin bass realization, we will turn to Corelli’s bass writing to check for substitutions and additions of chords. We do not need to go far, as Corelli already changes the bass slightly in the theme.

Example 59. Corelli, “La Folia” Bass from Theme  
Corelli’s opening bass line



Example 60 provides a possible solution for realizing the new figures on the violin:

Example 60. Corelli, “La Folia” Bass Possible Realization on the Violin

La Folia bass line realization alternative

The image displays two musical staves. The top staff, titled "La Folia bass line realization alternative", shows a series of chords in a treble clef. The chords are represented by block letters (G, F, E, D, C, B, A, G) and are accompanied by figured bass notation below them: #, 5 b6, 6 3, 7 6, #. The bottom staff, titled "Corelli's opening bass line", shows a similar sequence of chords in a treble clef, also with figured bass notation: #, 5 b6, 6 3, 7 6, #.

In example 60 we can see the 5-6 figuring that we saw in earlier in example 54. Here, the 6-5 does goes to the bVII rather than to the dominant. At the end, we see that the addition of the 6<sup>th</sup> degree on D minor creates room for a 7-6 chord prepared in the previous tonic chord.

Now that we are putting to work all the knowledge acquired and our ears, another question: Could we create a realization that enables the violin to play only in the lower strings of the violin? That would help in accompanying and not crossing voices with another violinists that is playing the upper line.

We cannot really switch octaves in this particular example, but we can change the inversion of the chords, by using chord tones that are below the original bass line. For that purpose, we will go once more to creating a stack of chords. This time with chord tones both above and below the bass line added.

Example 61. Corelli, Bass with Chord Stacks Above and Below the Bass notes

Musical notation for Example 61. The top staff shows a series of chord stacks in treble clef. The bottom staff shows a bass line in treble clef with notes: G, G#, A, B, C, D, E, F, G, A, B, C. Fingering numbers are: #, 5, b6, 6, 7, 6, #.

Example 61 shows us that we have the possibility of staying on the G string for the bass line. Once we know that, we can easily come up with a solution.

Example 62. Corelli's Bass Modified for Lower Strings of the Violin

Musical notation for Example 62. The top staff shows a series of chord stacks in treble clef. The bottom staff shows a modified bass line in treble clef with notes: G, G#, A, B, C, D, E, F, G, A, B, C. Fingering numbers are: #, 5, b6, 7, 6, #.

Now, we can also compare this line created and its range to one of Corelli's original variations.

Example 63. Comparison of Range: Variation 15 and Example 62  
Corelli's variation 15

Musical notation for Example 63. The top staff is labeled 'Corelli's variation 15' and shows a series of chord stacks in treble clef. The bottom staff is labeled 'Example 61' and shows a series of chord stacks in treble clef.

The examples above show some of the ways in which one can learn from using good examples from the literature. Analysis of pieces based on grounds and sequences can teach us common formulas and give us multiple possibilities. Next, we will look at Biber's famous *Passacaglia* for unaccompanied violin.

Example 64. *Lamento* Bass from Biber's *Passacaglia* with Chord Stack

Chord stack

Lamento bass

6

Detailed description: This musical example consists of two staves. The top staff, labeled 'Chord stack', shows four chords in G minor, 8/8 time. The chords are: G3-Bb3-D4 (minor triad), G3-Bb3-D4 (minor triad), G3-Bb3-D4 (minor triad), and G3-Bb3-D4 (minor triad). The bottom staff, labeled 'Lamento bass', shows a descending tetrachord: G3, F3, E3, D3. A '6' is centered below the bass staff.

In example 64, we see the basic bass line – the descending tetrachord in minor mode – and the chord stack, which we will be using to plan the figured bass. In example 65, we will look at some of the variations created from the chord stack in two and three voices.

Example 65. *Lamento* Bass Realization Possibilities for Biber's *Passacaglia*

Two voices

Three voices

6

6

Detailed description: This example shows two musical realizations. The first, 'Two voices', has two staves. The top staff has two voices: the upper voice plays chords (G3-Bb3, G3-Bb3, G3-Bb3, G3-Bb3) and the lower voice plays the bass line (G3, F3, E3, D3). The second, 'Three voices', also has two staves. The top staff has three voices: the upper voice plays chords (G3-Bb3, G3-Bb3, G3-Bb3, G3-Bb3), the middle voice plays chords (G3, G3, G3, G3), and the lower voice plays the bass line (G3, F3, E3, D3). Both realizations are marked with a '6' below the bass staff.

Up until now we talked about the technical part of realizing continuo on the violin.

However, if we play example 65, we will notice that although all realizations sounds acceptable to the ear, they also sound very different. For Instance: Comparing the two and three voices examples, we will notice that they naturally stress the beat differently.

Biber's *Passacaglia* is perhaps one of the best pieces on the violin to study style and how we can create variety not only in playing continuo, but music in general. We can also create stronger and more obvious contrast by mixing two- and three-part chords.

Example 66. Mixing Two- and Three-part Chords in Continuo Realization

Mixing of voices: creating motion by adding notes

Musical notation for Example 66, first part: Mixing of voices: creating motion by adding notes. It shows two staves in G minor. The top staff has two-part chords in the first two measures, which then become three-part chords in the last two measures. The bottom staff has a simple two-part bass line. The number '6' is written below the second and fourth measures of the bottom staff.

Mixing of voices: creating motion by subtracting notes

Musical notation for Example 66, second part: Mixing of voices: creating motion by subtracting notes. It shows two staves in G minor. The top staff starts with three-part chords in the first two measures, which then become two-part chords in the last two measures. The bottom staff has a simple two-part bass line. The number '6' is written below the second and fourth measures of the bottom staff.

In examples 65 and 65 we see that, in addition number of voices played, the choice of chord tones played and doubled is an important factor in creating motion as well as the strong and weak beat feeling. The addition of the third of the chord for instance, creates a much more stable and definite ending than adding the fifth or the octave.

We can also create motion through the use of our right hand using the bow to create dynamics and stress different notes or intervals. By leaning or passing quickly through different chords tones, we can also create motion in the same manner that one would on the harpsichord, by choosing to slur or releasing specific notes at a time.

Example 67 shows us a few selected examples from Biber. Notice how he creates motion with varying number of notes, arpeggiation, adding suspensions, and changing note values and articulation of the bass line.

Example 67. Variety in Biber's Treatment of the Descending Tetrachord

Mixing broken and double-stops

Addition of 7-6 suspension

5 6 7 6 #

Addition of 5-6 suspension

Addition of 4-3 suspension

5 b6 5 6 5 6 # 5 b6 5 6 5 6 4 #

Articulation change in the bass line

6 7 6

Generally, accompanying on the violin will be subtler than the examples we see in Biber's *Passacaglia*, where composer manages to keep the attention of the listener for about eight minutes of music using a bass of only four notes.

Biber's approach to composition represents the influence of the teaching of rhetoric in the Baroque. He uses "melody, tessitura, rhythm, and harmony in a combination as varied 'as the bottomless sea' to provoke a certain reaction or affect in the listener"<sup>40</sup>. Understanding the subtle differences that exist between the variations of the

<sup>40</sup> Judy Tarling, *The Weapons of Rhetoric: A Guide for Musicians and Audiences* (Herts, UK: Corda Music, 2004, 12.

*Passacaglia* gives us a window into the teaching of composition of the time, and analysis of all its possibilities can be of great help with style.

The methods described above can be applied to all sorts of compositions, both solo and chamber, grounds, ascending sequences, and different cadences for learning basic formulas and understanding common practices. One last idea we will discuss now is arranging (or rearranging) using good literature, something that we have already been using to a certain extent.

In order to discuss rearranging, we will employ an instrumental example from the second sonata of Boismortier.

Example 68. Boismortier. Sonata 2 from Op. 51(Opening of Third Movement)

The musical score for Example 68 consists of two systems. The first system is for two violins (VI. 1 and VI. 2). VI. 1 starts with a treble clef and a key signature of one sharp (F#). VI. 2 starts with a bass clef and a key signature of one sharp (F#). The second system is for a piano accompaniment, with a treble clef for the right hand and a bass clef for the left hand. The score includes various musical notations such as notes, rests, accidentals, and dynamic markings.

First, we will start with the most basic technique of modifying the bass line: changing octaves.



Example 69. Example 68 With Modified Bass Line

The image displays two systems of musical notation. The first system consists of two staves: a treble clef staff and a bass clef staff. The treble staff contains a melodic line with several notes marked with a '+' sign above them. The bass staff contains a complex bass line with many notes, some beamed together. The second system, starting at measure 105, also has two staves. The treble staff continues the melodic line, and the bass staff features a modified bass line with fewer notes, some marked with a 'z' symbol, indicating a change in the bass line.

We will proceed by isolating the bass line and adding figures to the chords and then, we create a new bass line using only notes on the G string of the violin. This will produce different inversions of the chord and the need to re-figure them<sup>41</sup>. We will also add figures to the Violin 2 part for the purposes of analysis.

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<sup>41</sup> As in Corelli's variation 15 (example 61 and 62) the new bass line results in new inversions or chords and therefore different figures. The incidence of repeated notes will make up for the limitations of chord construction on the violin.

Example 70. Figuring of the Violin 2 Line and New Bass Line

VI. 1

VI. 2

new bass

# # 6 #6 6 6 76  
4 #4 #3

5 +

4 #3 6 #4 #2 6 # 6 6 6 5

4 #3 # 7 # # 6 # 5 #

Now, having analyzed the figures and created a new bass line, we will go on and conceive a new Violin 1 using the new bass line.

Example 71. New Violin Line With Figures

# # 6 #6 6 6 56 4 #3 #  
4 #4 #3

7 # # 6 7 5 #

It is interesting to notice that the newly conceived Violin 1 resembles in many ways the music of Matteis that we saw in Chapter 1.

Many more ideas can be derived from the examples above, such as composing a new Violin 2 line with chords while maintaining the Violin 1 intact. Also we could combine and interchange chords between parts, depending on texture or which part has more of an accompanying function. The examples above represent merely a few of several possibilities in which one can approach rearranging. However, the most important lesson is to get into the habit of looking at music through the eyes of the composer. In Baroque performance practice, just as in other practices both classical and popular, the performer needs to acquire as much information as possible not only to understand the music but also to be able to convey and translate it to others.

Repetition is necessary for mastering an instrument or a language, but mindless practice and repetition of patterns on a page is the recipe for frustration. Not everyone is destined to be a composer (or even would like to be one), but experimenting with the art of composing and arranging can be extremely valuable for learning performance practice.

Jazz players are very lucky to have musical recordings of their subject of study played by the icons of their music. Gypsy and bluegrass fiddlers have the benefit of an uninterrupted practice and access to the past through the teaching that is handed down from generation to generation. In the case of Baroque performers, treatises and documents from the period are key to understanding music and its context, but the greatest lesson lies in the works from master composers.

## 7. Final remarks

To write a solo is today no longer regarded as an art. Almost every instrumentalist occupies himself in this way. If he has no ideas, he helps himself with borrowed ones. If he is lacking in knowledge of the rules of composition, he lets someone else write the bass for him. As a result, our time brings forth, instead of good models, many monstrosities.<sup>42</sup>

In the past 300 years of violin history, some of the best-known performers and teachers are composers (of different levels), or at least well acquainted with compositional rules and able to write concerto cadenzas, arrangements and methods. In the 20<sup>th</sup> Century, we can see several examples of such musicians such as violinists Fritz Kreisler, Eugene Ysaye and Jascha Heifetz. Early violin methods almost invariably provide accompaniment parts for teaching examples, from Geminiani and Tassarini all the way to Wieniawski's *L'École moderne*, op. 10. Unfortunately, dropping such methods today from music education<sup>43</sup> has created performers with superb technical ability, but often very little knowledge of music theory and ear training, not to mention music history. Quantz's quotation in the beginning of this section indicated that even in the 18<sup>th</sup> Century that was already a concern. The difference is that musicians then looked down on it. The current mainstream system of training causes musicians to have trouble expressing themselves in solo and, especially, chamber music, when playing inner voices and recognizing the role of a part in a given context.

Also, due to budget cuts and other constraints and necessities of the music teaching system, the practice of learning a second instrument has been fading over the course of the 20<sup>th</sup> Century. The advantage of learning another instrument, specifically

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<sup>42</sup> J. J. Quantz' *Versuch einer Amweisung die Flöte traversière zu Spielen* (1752) translated in Strunk, 590.

<sup>43</sup> There are exceptions, such as the methods for beginners of Demetrius Constantine Dounis (1886-1954).

another harmonic instrument, is clear in the performance, arranging and improvising skill of some of the best violinists of the 20<sup>th</sup> Century<sup>44</sup>.

This work is not meant as a quick fix or remedy to difficulties that violin students and professionals face today in music education, but it hopes to address some of the issues on the violin. Addressing music theory and ear training on the violin for string players puts it in a context that is both familiar and comfortable to string performerslayers.

The ideas presented are not intended as a comprehensive list of patterns in several keys. The purpose is to invite players to look at different ideas and to create their own methods catering to individual needs; to offer tools to overcome individual difficulties; and to figure out how to create music that is always alive and new, as so many of these composers intended in the first place.

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<sup>44</sup> Examples exist both in classical and popular music: We have recording in archival from USC of Heifetz accompanying students in masterclass: <http://youtu.be/Bsx4-NkBQg> (accessed June 12, 2013). The greatest of all jazz violinist Stephanie Grappelli not only played piano well, but recorded full albums on the instrument: <http://youtu.be/ITgjeua8w6g> (accessed June 12, 2013).

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