

TRANSCRIPTION OF BAROQUE WORKS FOR CLASSICAL GUITAR:

J. S. BACH'S SONATA IN D MINOR (BWV 964) AS MODEL

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Dissertation Prepared for the Degree of

DOCTOR OF MUSICAL ARTS

UNIVERSITY OF NORTH TEXAS

May 2013

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Lang, Matthias. *Transcription of Baroque Works for Classical Guitar: J. S. Bach's Sonata in D minor (BWV 964) as Model*. Doctor of Musical Arts (Performance), May 2013, 76 pp., 52 musical examples, bibliography, 75 titles.

Continuing the common practice of composers of the Baroque period to transcribe their own or other composers' works for a different instrument, this dissertation contributes to studies of J. S. Bach's repertory as the source of program material for the classical guitar. It is from differences revealed through a comparative analysis of Bach's Violin Sonata No. 2 (BWV 1003) and his harpsichord arrangement thereof – Sonata in D minor (BWV 964) – that principles of transcription are derived and organized according to descriptive categories. Emulating the composer-transcriber with knowledge of the capabilities and limitations of the instruments involved, the arrangement procedures are applied to the classical guitar. In so doing, this study addresses the emerging challenges and complexities in creating an idiomatic arrangement.

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## CHAPTER 1

### INTRODUCTION

Continuing the common practice of composers of the Baroque period to transcribe their own or other composers' works for a different instrument, this dissertation will contribute to studies of J. S. Bach's repertory as the source of program material for the classical guitar, an instrument not available for any of Bach's own transcriptions, but one that is able to continue Bach's legacy in a unique way for contemporary performers and their audience.

The following study addresses the skills required to make an effective Bach transcription for guitar. By comparing Bach's Violin Sonata No. 2 (BWV 1003) with his own arrangement of the work for harpsichord (BWV 964), a number of principles emerge that can be applied to create an effective transcription. Although the Sonata in D minor (BWV 964) is rarely performed nowadays, it serves as an expedient model for transcription.<sup>1</sup> The number of issues involved in this endeavor adds to the complexity and the challenge of this investigation.

Since Bach, who did not write a single piece for guitar, is "the most published, most sold, and most performed guitar composer," this research will make a valuable contribution to the musical scholarship of classical guitarists.<sup>2</sup> The aim of this inquiry is to present a thorough systematic analysis of Bach's transcription process by examining selected examples of his stylistically idiomatic arrangements.

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<sup>1</sup> Hermann Keller, *Die Klavierwerke Bachs: Ein Beitrag zu ihrer Geschichte, Form, Deutung und Wiedergabe*, 3rd ed. (Leipzig: C. F. Peters, 1986), 105.

<sup>2</sup> Wolf Moser, "Bach und Albéniz: Unser Umgang mit Transkriptionen," *Gitarre & Laute* 9, no. 3 (1987): 40.



## CHAPTER 2

### STATE OF RESEARCH

Little has been published on the subject, and none of the literature discusses a transcription by Bach in its entirety. In the following, the released articles regarding a transcription approach of Bach's music for guitar will be briefly surveyed. Moreover, the distinctiveness of the concerned instruments and movement types of this investigation will be addressed. Since Bach regarded his arrangements not merely as transcriptions but as recompositions in which he adhered to the idiosyncrasies of each instrument, the contemporary transcriber ought to model the composer's way of arranging his own works.<sup>3</sup>

As the classical guitarist Philip Hii rightly observes, there is a sizeable number of transcriptions among the huge corpus of Bach's works, which have been a rather neglected part of the Bach repertory and have only recently gained more respectability and interest among scholars and performers.<sup>4</sup> Since Bach himself transcribed some of his music from bowed to plucked stringed instruments, such examples serve as ideal models in the creation of arrangements.

#### Nicholas Goluses

In his journal article, the guitar professor Nicholas Goluses discusses the transcription process of Bach's music for the classical guitar by examining Bach's alleged arrangement of his Violin Partita No. 3 (BWV 1006) for lute (BWV 1006a).<sup>5</sup> After tracing the history of manuscript

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<sup>3</sup> Leslie D. Paul, "Bach as Transcriber," *Music & Letters* 34, no. 4 (October 1953): 308.

<sup>4</sup> Philip Hii, "Bach's Method of Transcription," *Soundboard* 17, no. 1 (Spring 1990): 28.

<sup>5</sup> A brief discussion of the Lute Suite No. 4 (BWV 1006a) whether or not being an authentic Bach arrangement is provided in Chapter 3.

sources, he briefly explains the transcription practice in the Baroque era. Paying attention to performance practice issues and how they can be realized on the guitar, Goluses gives several examples of changes Bach made. At the end of his article the author applies the results of his analysis to his own transcription of the opening movements of Bach's three violin sonatas for the classical guitar.

### Stanley Yates

The guitarist and scholar Stanley Yates has published a series of four articles on the transcription of Bach's unaccompanied string music. In his study, he analyzes the musical and rhetorical structure of the solo violin and solo cello works, and he examines Bach's arrangements for lute and keyboard. To illustrate possible transcription details for the guitar, Yates uses examples from Bach's cello suites, which he has also transcribed and which were published by Mel Bay.<sup>6</sup> In addition, he provides examples of idiomatic and stylistic ornamentation concerning the guitar.

Both Goluses and Yates present helpful illustrations of Bach's methods in arranging his own music. Nevertheless, they do not provide an in-depth analysis of an entire Bach transcription.

### Philip Hii

Moreover, Philip Hii is the only guitarist to discuss Bach's Violin Sonata No. 2 (BWV 1003), the work explored in this dissertation. While comparing the piece with the composer's arrangement for harpsichord (BWV 964), he gives some examples of changes Bach has employed in this work and also in two other compositions. Hii concisely deals with the

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<sup>6</sup> Stanley Yates, *J. S. Bach: Six Unaccompanied Cello Suites Arranged for Guitar* (Pacific: Mel Bay, 1998).

composer's method of transcription in terms of two categories, melody and harmony. Although his six-page article is very helpful as an introduction to the subject, the investigation is far too cursory and limited. Since Bach composed the whole work for keyboard, it deserves to be studied in depth with more detailed categorical observations regarding the transcription method. Hii only compares Bach's two versions of the sonata, but fails to demonstrate the relevance of his examination for classical guitar.

Indeed, none of the aforementioned scholars has contributed an extensive analysis of a complete work transcribed by Bach; neither do they explore Bach's transcription method in view of the diverse movements of a particular genre. In this study, by contrast, I examine Bach's Violin Sonata No. 2 (BWV 1003) and his arrangement for harpsichord (BWV 964) thoroughly, comprehensively, and in its entirety. In so doing Bach's technique of transcription is revealed in light of the distinctive movements of the sonata and the idiosyncrasies of the respective instrument for which he wrote. Based upon the results of my in-depth comparison of the two works, I apply the techniques disclosed as a result of my analysis of Bach's Sonata in D minor (BWV 964) for classical guitar.

## CHAPTER 3

### PRELIMINARY CONSIDERATIONS

#### Idiosyncrasies of Instruments

When it comes to creating suitable arrangements, the transcriber needs virtually to re-compose the original piece for a different, specific instrument. In order to write effectively “for” pianoforte, guitar, etc., and not “against” it, as Leslie Paul mentions, one must consider transpositions as well.<sup>7</sup> Bach himself, for instance, transposed the fifth cello suite originally in C minor (BWV 1011) up a fifth to G minor for Baroque lute (BWV 995); he further transposed the fugue from his first violin sonata in G minor (BWV 1001) down a fourth to D minor for organ (BWV 539), the second violin sonata in A minor (BWV 1003) down a fifth to D minor for harpsichord (BWV 964), and the first movement of the third violin sonata in C Major (BWV 1005) down a fourth to G Major for harpsichord.

Moreover, the transcriber has to be conscious of the technical limitations of the instrument for which he conceives his arrangement. According to Leslie Paul, Bach himself “was scrupulously careful in observing the distinctive nature of each instrument.”<sup>8</sup> Being aware of the idiosyncrasies of the instruments involved in this enterprise, familiarity with the uniqueness of the violin, the harpsichord, and the guitar is therefore quite significant.

#### *Violin*

Characterized by polyphonic textures, the music of the Baroque period was accompanied by the development of the violin, both with regard to its make and its technique in playing.

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<sup>7</sup> Paul, 311.

<sup>8</sup> Ibid., 306.

Consequently, it is not surprising that this one instrument played a major role during that epoch; or, as the renowned conductor and early-music specialist Nikolaus Harnoncourt once put it: “The violin embodies the spirit of the Baroque like no other musical instrument.”<sup>9</sup> For that reason, most of the Italian composers after Monteverdi were violinists themselves.<sup>10</sup> There is possibly no other instrument with such a vast and diversity of repertory like the violin.

Since the violin imitates the human voice aesthetically and emotionally, it features an evident rhetorical quality. Thus, in the Baroque Era, the long notes on the violin were oftentimes revitalized by a vibrato at the end. Its variety of dynamic modification and its capacity for a sustained tone contributed to the musical versatility of the instrument. In addition, stringing the Baroque violin with gut strings resulted in an intimate tone capable of all nuances of expression and intensity. Harnoncourt compared it to the modern violin, featuring a tone that is “much quieter, its sound sharp and richer in overtones.”<sup>11</sup> Moreover, the unique design of the Baroque bow facilitated the execution of polyphonic textures.<sup>12</sup> Its shorter neck, the more flat fingerboard, and the convex-shaped bow with the larger distance between hair and stick enabled the violinist to play all four strings at the same time. Thus, chords like the first one of the Violin Sonata No. 2 (BWV 1003), as seen in Example 1, were not limited to being played as an arpeggio.

However, despite all the advantages of the violin, its range nevertheless is limited. Marion Scott mentions that one peculiarity of the violin is the lack of low notes at the bottom of

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<sup>9</sup> Nikolaus Harnoncourt, *Musik als Klangrede: Wege zu einem neuen Musikverständnis* (Kassel: Bärenreiter-Verlag, 2001), 142. “Die Violine verkörpert wie kein anderes Musikinstrument den Geist des Barock.”

<sup>10</sup> *Ibid.*, 143.

<sup>11</sup> *Ibid.*, 149.

<sup>12</sup> Henry Joachim, “Bach’s Solo Violin Sonatas and the Modern Violinist,” *The Musical Times* 72, no. 1057 (March 1931): 221.

its range.<sup>13</sup> As a result, the notes F and E of the bass line A-G-F-E in Example 1 needed to be put up an octave, which, indeed, displaces the polyphony but does not discontinue it.

Example 1: *Grave*, m. 1 (BWV 1003)



The constant shifting from one voice to the other is one of the distinctive features of Bach's solo violin music. Conscious of the instrument's capacity for musical diversity and agility, Bach included chordal playing, polyphonic texture and extended melodic phrasing of asymmetrical solo in his unaccompanied violin works. Concerning the textural variety in his violin works, the German composer and music critic Johann Friedrich Reichardt remarked in 1805 that Bach's solo violin music represents "perhaps the greatest example in any art of the freedom and certainty with which a great master can move even when he is in chains."<sup>14</sup>

### *Harpsichord*

According to Leslie Paul, Bach "provided the harpsichord with the appropriate equivalent for the idiom and technique peculiar to the violin."<sup>15</sup> This statement is further affirmed by Bach biographer and trained organist Albert Schweitzer; he noted that Bach regarded the phrasing of the violin as a model of general musical phrasing in his transcriptions for keyboard and that he

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<sup>13</sup> Marion M. Scott, "Solo Violin Sonatas: Some Observations upon their Past and upon their Performance," *Music & Letters* 10, no. 1 (January 1929): 52.

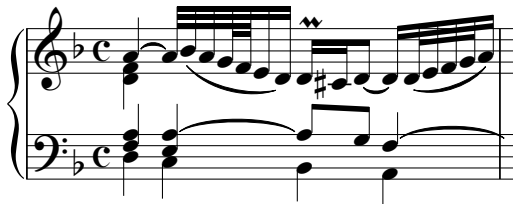
<sup>14</sup> Christoph Wolff, "Bach, §III: (7) Johann Sebastian Bach, 19. Chamber music," *Grove Music Online* <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/40023pg10?q=johann+sebastian+bach>> (accessed January 25, 2013).

<sup>15</sup> Paul, 307.

also expected harpsichordists to pursue that specific phrasing in their interpretation.<sup>16</sup>

Comparing the first measure of the *Adagio* of the Sonata in D minor (BWV 964) illustrated in Example 2 with Example 1, which displays the original violin version (BWV 1003), shows that Bach adopted the same phrasing for both the violin work and his keyboard transcription. Moreover, Bach used the lower register of the harpsichord to logically continue the bass line downwards in stepwise motion.

Example 2: *Adagio*, m. 1 (BWV 964)



In addition, Example 2 reveals that Bach transposed the piece down a fifth from A minor to D minor resulting in a low range and only one change of accidental.<sup>17</sup> Since the original version features the movement in the direction of sharp keys, Bach deliberately diminishes the level of suspense by transposition to one flat in the key signature. In Example 3, one can observe the introduction of an A-sharp as part of an F-sharp major-seventh chord, which is clearly the most distant harmonic point from the key of A minor. Whereas the violinist was able to execute the A-sharp by intonation, the harpsichordist was limited by the meantone temperament of his instrument.

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<sup>16</sup> Albert Schweitzer, *Johann Sebastian Bach* (Wiesbaden: Breitkopf & Härtel, 1979), 343, 349.

<sup>17</sup> Howard Shanet, "Why did J. S. Bach Transpose his Arrangements?," *The Musical Quarterly* 36, no. 2 (April 1950): 191.

Example 3: *Grave/Adagio*, m. 11



Johann Mattheson once remarked in his *Critica musica* that in Bach's suggested Well-Temperedness, "one could play in all keys without offense to the ear."<sup>18</sup> Thus, extreme keys were at least tolerable, whereas an F-sharp major chord would sound completely out of tune in meantone temperament.<sup>19</sup> In the transposed version for harpsichord, as observable in Example 3, this harmony becomes a B major-seventh chord with D-sharp as its leading tone.

There is no doubt that the heyday of the harpsichord occurred during the era of the Baroque. Harnoncourt calls it the soul of the Baroque orchestra, because it facilitates the rhythmical coherence of the musicians who oftentimes play without a conductor.<sup>20</sup> Its main role is its realization of the figured bass, over which the harpsichordist effectuates chordal accompaniment. All harmonic figuration emanates from the bass; therefore, arpeggios are usually played from the lowest note upward with the bass on the beat.<sup>21</sup> However, Bach

<sup>18</sup> Johann Mattheson, *Criticae musicae* (Hamburg: 1725): 162. "Und also bleibt Werkmeister und Neidhardt bißher der ihnen ertheilte Ruhm unauslöschlich, daß sie die Temperatur so zum Stande gebracht, daß man, ohne Verletzung des Gehörs, aus allen Tönen spielen kann."

<sup>19</sup> J. Murray Barbour, "Bach and 'The Art of Temperament'," *The Musical Quarterly* 33, no. 1 (January 1947): 71.

<sup>20</sup> Harnoncourt, 153.

<sup>21</sup> Christoph Hammer, interview by author, Denton, TX, December 6, 2012.



emancipated the harpsichord from its role as a mere continuo instrument to become a true partner in the sonatas with violin (BWV 1014-19), flute (BWV 1030-33) and viola da gamba (BWV 1027-29).<sup>22</sup>

As a plucked instrument the harpsichord is incapable of executing gradual dynamics.<sup>23</sup> In order to create some overall dynamic contrast, it can either be realized through a variety in texture or by a change of register. The so-called *Bach harpsichord*, which was a two-manual instrument with four-register disposition ranging from the contra-octave G to the three-line-octave C, had a louder and a weaker register built into it and could be adjusted for a whole movement.<sup>24</sup> In addition, a cantabile, singing style of playing readily achieved on the violin can only be realized through subtle agogical nuances on the harpsichord.<sup>25</sup> Its strings are plucked rather than struck as is the case of the pianoforte, and compared to the guitar it does not feature a variety of attacks.

### *Guitar*

Since the Spanish guitar was hardly known at German courts in the Baroque Era, it appears that Bach was not aware of the guitar's presence in his society.<sup>26</sup> However, due to his acquaintance with the supreme lutenist of the eighteenth century, Silvius Leopold Weiss, Bach was conscious of the lute and its capabilities.<sup>27</sup> Although he did not use lute tablature when writing for the instrument, he composed and arranged for the lute.

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<sup>22</sup> Christoph Wolff, "Bach, §III: (7) Johann Sebastian Bach, 19. Chamber music."

<sup>23</sup> Harmoncourt, 153.

<sup>24</sup> *Ibid.*, 154.

<sup>25</sup> *Ibid.*, 153. In this regard, the harpsichordist Christoph Hammer remarked in an interview with the author that the fingers of the harpsichordist must be rounded up in playing position, and together with a flexible movement of the hands and their joints the keys of the instrument are to be bowed.

<sup>26</sup> James Tyler and Paul Sparks, *The Guitar and its Music from the Renaissance to the Classical Era* (New York: Oxford University Press, 2007), 139.

<sup>27</sup> Graham Wade, *A Concise History of the Classical Guitar* (Pacific, MO: Mel Bay, 2001), 50.

With the guitar being part of the lute family, according to the Hornbostel and Sachs classification system, it seems that the choice of analyzing a work for lute, such as Lute Suite No. 3 (BWV 995) or Fuga A minor (BWV 1000), might be more suitable as model for this investigation.<sup>28</sup> It could be argued that studying Bach's approach to writing for the lute would be more applicable than the harpsichord arrangement in applying his methods to the guitar. However, the goal of this thesis is not to explore his method involving two closely related instruments such as the lute and the guitar. Rather, my aim is to comprehend Bach's transcription process according to broad principles. The lute transcription (BWV 1006a) of Violin Partita No. 3 (BWV 1006) fails to reveal the full extent of Bach's arrangement procedures to the degree that harpsichord transcription (BWV 964) of Violin Sonata No. 2 (BWV 1003) does. Having said this, the amateurish transcription of Lute Suite No. 4 (BWV 1006a) is arguably not by Bach, nor is it clearly based on a genuine autograph.<sup>29</sup> According to Hermann Keller, it is absolutely implausible that Bach would have made such a "stuporous" adaptation after his masterful arrangement of the Prelude in the *Ratswahl* Cantata (BWV 29).<sup>30</sup>

The guitar is an instrument that somehow lies between the harpsichord and the violin regarding its playing possibilities. It is a melodic and harmonic instrument at the same time, and it features a potential of diverse dynamic expression. Just as the case of a violinist, the guitarist can use different fingerings for the same melody, which results in a variety of tone colors and aesthetic nuances. Moreover, the left-hand techniques of slurring and vibrato are quite similar. Being a plucked instrument like the harpsichord, the guitar is incapable of executing sustained

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<sup>28</sup> *Grove Music Online*, s.v. "Guitar," <http://www.oxfordmusiconline.com/subscriber/article/grove/music/43006> (accessed January 27, 2013).

<sup>29</sup> Keller, 107. "Von diesem Meisterwerk [Adagio in G major (BWV 968)] ist es ein weiter Schritt zu der schülerhaften Übertragung, die – nach einem angeblich echten Autograph von 1737(!) – Bach von der dritten Partita für Violine allein, gemacht haben soll (BG XLII, S. 16)."

<sup>30</sup> *Ibid.*, 108. "Daß Bach nach der Meisterübertragung des Präludiums in der Ratswahlkantate einen solch stümperhaften Satz geschrieben haben soll, ist ungläubhaft, selbst wenn die Handschrift echt sein sollte."

notes, much less of producing a crescendo or diminuendo on individual notes. However, since the guitarist can directly affect his attack of the strings regarding intensity, angle, and point of his finger and nail, he can produce a longer sustaining note than the harpsichordist. Hence, on the guitar the musician can play a chord together with a melodic figure, while the sound of the sonority sustains for a short duration until it entirely decays. A guitarist, compared to the harpsichord, has the use of only four fingers to produce the sound. This physical limitation demands a different performance technique with respect to texture, range, and formation of a chord.

As the classical guitar features characteristics of both the violin and the harpsichord, both versions of the sonata – Violin Sonata No. 2 (BWV 1003) and Sonata D minor (BWV 964) – serve as a basis for a guitar transcription. In creating an adaptation for classical guitar one has to expand the version for violin, whereas in the case of the harpsichord arrangement the converse is true.

### Idiosyncrasies of Movements

Another part of the preliminary considerations one must take into account in making a transcription concerns the movement types in each of the four movements of Violin Sonata No. 2 (BWV 1003), and Sonata in D minor (BWV 964) respectively – *Grave* or *Adagio*, *Fuga*, *Andante*, and *Allegro*. Since these diverse movements differ fundamentally in quantity and type of alteration employed by the composer in his transcription, it is worth examining how these changes might be related to a particular movement, and at the very least to their musical context.

## “*Grave*”/”*Adagio*”

Whereas in the early seventeenth century the term *Grave* did not indicate a specific quality of movement or pace, by the end of the century composers such as Cavalli, Marini, and Purcell used it to specify a very slow movement. See, for example, Purcell’s Preface to his Twelve Sonatas of Three Parts.<sup>31</sup> Although theorists do not agree about the exact speed of tempo markings, whether *Grave* is slower or faster than *Largo* or *Adagio*, the marking clearly indicates a profound and serious mood. Interestingly, most of Corelli’s slow movements are designated *Grave*, especially introductory movements.<sup>32</sup> In this sense, Bach likely took the idea of starting his Violin Sonata No. 2 (BWV 1003) with a *Grave* from Corelli.

In this first movement Bach not only made extensive changes, he also altered its rhythmic character in his transcription for harpsichord (BWV 964) by replacing the designation *Grave* with the tempo-marking *Adagio*. One of the reasons for this change might be that throughout the eighteenth century there was no uniform practice. Consequently, there is lack of agreement as to which tempo marking might be the slowest.<sup>33</sup> It might also indicate a change in the character of the music, in other words, an aesthetic change.

In his *Syntagma musicum* Praetorius equated *Adagio* with *Largo* and *Lento*, and thus described all three as slow; among seventeenth-century Italian composers it was likewise regarded as the slowest tempo indication.<sup>34</sup> The term means “at ease” or “leisurely.” Frescobaldi even suggested the definition “as you wish,” and he remarked that the musical context of a movement labeled *Adagio* points to a freer and less metrical style of playing.<sup>35</sup> The

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<sup>31</sup> Henry Purcell, *Twelve Sonatas of Three Parts* (New York: Lea Pocket Scores, 1968).

<sup>32</sup> *Ibid.*

<sup>33</sup> *Grove Music Online*, s.v. “Adagio,” <http://www.oxfordmusiconline.com/subscriber/article/grove/music/00149> (accessed February 2, 2013).

<sup>34</sup> *Ibid.*

<sup>35</sup> *Ibid.*

spirit of a complete movement designated *Adagio* must not only be determined from tempo marking, but from its meter, key, dissonance, and harmonic rhythm.<sup>36</sup>

However, compared to other slow tempo markings Baroque composers regarded *Adagio* generally as a slow movement that features embellishments.<sup>37</sup> Therefore, trills, written-out ornamentation, grace notes, appoggiaturas, etc. are an integral part of the first movement of Bach's Violin Sonata No. 2 (BWV 1003), and Sonata in D minor (BWV 964) respectively. Providing a performance practice instruction in his treatise for an *Adagio* movement, the Baroque flutist Johann Joachim Quantz suggests that every note must be "caressed and flattered" rather than played powerfully.<sup>38</sup> Thus, instead of plucking the notes with strong articulation, guitarists ought to perform them with a round tone, conscious of the phrasing bows.

The changes Bach made concur with the movement types *Grave* and *Adagio*. On the one hand, bass notes played an octave lower and fuller harmonization of chords refer to the heavy character of a *Grave* type of movement. The altered ornamentation and slight rhythmic variation on the other hand, signify the traits of an *Adagio* being a slow movement with embellishments. As Bach used to pair most of his keyboard fugues with preludes, the first movement of the sonata in this investigation, serves as a prelude to the subsequent fugue.<sup>39</sup> Following this convention Bach ends the *Grave/Adagio* on the dominant key, just as he does in the first movement of his third violin sonata (BWV 1005), in order to transition to the fugue more compellingly.

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<sup>36</sup> Mary Cyr, *Performing Baroque Music* (Portland: Amadeus Press, 1992), 39.

<sup>37</sup> *Grove Music Online*, s.v. "Adagio."

<sup>38</sup> Johann Joachim Quantz, *Versuch einer Anweisung die Flöte traversiere zu spielen*, 2nd ed. (Leipzig: C. P. Kahnt, 1926), 96.

<sup>39</sup> Eun-ho Kim, "Form and Function in the Slow Movements of J. S. Bach's Three Violin Sonatas for Solo Violin, BWV 1001, 1003, and 1005" (DMA diss., University of Cincinnati, 2002), 43.

*“Fuga” (“Allegro”)*

The term *Fuga* or fugue literally means “flight” and refers to an imitative piece in which voices are chasing and fleeing from one another; in fact, if one compared all the pieces called fugue there would be only one common feature – imitation.<sup>40</sup> Although the meaning of the term changed over the course of time, counterpoint is the most basic element of a fugue since the era of the Baroque.

Bach’s numerous additions of counterpoint in BWV 964 not only underscore his excellent craftsmanship in fugal writing, but they also reveal the musical architecture he had in mind when freed from the limitations of a melodic instrument like the violin. The sheer number of fugues by Bach and their technical diversity and complexity resist easy classification or generalization.<sup>41</sup> Therefore, it is not surprising that he recomposed the fugue, or as Hermann Keller observed, that Bach “translated” the figuration of the violin into real polyphony.<sup>42</sup> Concerning this matter it is worth mentioning what Putnam Aldrich once remarked, that “[e]ven though in his many duties Bach was occasionally in need for new compositions and therefore reworked some of his material, there is no doubt that he was devoted to the art of transcription.”<sup>43</sup>

In addition to the designation *Fuga*, Bach furnished the transcribed second movement with an *Allegro* tempo marking. The tempo indication recalls the fugal *Allegro* in Reincken’s second trio sonata, which Bach intended to transcribe and finally ended up recomposing for the keyboard – he literally improved the whole piece musically by expanding the original fifty

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<sup>40</sup> *Grove Music Online*, s.v. “Fugue,” <http://www.oxfordmusiconline.com/subscriber/article/grove/music/51678> (accessed February 2, 2013).

<sup>41</sup> *Ibid.*

<sup>42</sup> Keller, 106.

<sup>43</sup> Putnam Aldrich, “Bach’s Technique of Transcription and Improvised Ornamentation,” *The Musical Quarterly* 35, no. 1 (January 1949): 26.

measures to ninety-five.<sup>44</sup> One could easily imagine that Bach transcribed his violin sonatas with his arrangements of the trio sonatas by Dutch organist Johann Adam Reincken for harpsichord in mind. Bach transcribed the entire first sonata, only the fugue from the second, and from the third sonata only the first part.<sup>45</sup> Interestingly, Bach followed the same plan in his own violin sonatas; he arranged the fugue of his first sonata (BWV 1001) for lute (BWV 1000) and organ (BWV 539), the whole second sonata (BWV 1003) for harpsichord (BWV 964), and the first movement of his third violin sonata (BWV 1005) for keyboard (BWV 968) as well. This conspicuous similarity between Bach's transcription of Reincken's sonatas and his own may help explain why he further designated the fugue with the tempo marking *Allegro*.

### *“Andante”*

In the eighteenth century the term *Andante* refers to an instruction for clear performance of a walking bass rather than a mere tempo marking; therefore, it does not appear in Mattheson's list of tempo marks at the end of *A Short Explication* (1724).<sup>46</sup> Its indication as a method of performance also implies that the movement must not be played *inégale*.<sup>47</sup> The thorough bass illustrates the primary definition of the term *Andante* being “at a walking pace.” In addition to the bass line, the character of cantabile melody is suggestive of an *Arioso*, a term Bach sometimes used to further describe an *Andante* or *Adagio* marked passage or movement.<sup>48</sup> The *Andante* of Violin Sonata No. 2 (BWV 1003), or Sonata in D minor (BWV 964) respectively,

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<sup>44</sup> Keller, 105.

<sup>45</sup> *Ibid.*, 101.

<sup>46</sup> *Grove Music Online*, s.v. “Andante,” <http://www.oxfordmusiconline.com/subscriber/article/grove/music/00854> (accessed February 4, 2013).

<sup>47</sup> Notes *inégales* or inequality is “[t]he convention, established during the Baroque period in France, whereby a sequence of notes written as equal in durational value was performed as alternately long and short.” *The Oxford Companion to Music*, s.v. “inequality,” <http://www.oxfordmusiconline.com/subscriber/opr/t114/e3419> (accessed February 22, 2013).

<sup>48</sup> *Grove Music Online*, s.v. “Arioso,” <http://www.oxfordmusiconline.com/subscriber/article/grove/music/01240> (accessed February 4, 2013).

clearly features the traits of an aria or a chanson, the melodious and songlike character in a precise and even pace, and whose beats are well marked.<sup>49</sup> For that reason, Bach wanted to keep the texture of the third movement as light as possible, and therefore added very little to his transcription.

Certainly, if one compares the aria-like *Andante* to the well-known second movement *Air* of Bach's *Orchestral Suite No. 3* (BWV 1068), one must admit that a movement or passage labeled *Arioso* also features a richer texture. However, it is important to recall that the harpsichord is incapable of introducing dynamic changes. Thus, Bach's decision not to enrich the texture in the third movement is likely due to the dynamic limitations of the harpsichord.<sup>50</sup> The tranquil walking bass, the songlike melody, and the binary form of this movement convey the simplicity, the relaxed and flowing character of the *Andante*, which serves as a calm anchor in between the overwhelming complexity of the preceding fugue and the subsequent lively *Allegro*.<sup>51</sup>

### *“Allegro”*

The term *Allegro* denotes a merry and cheerful character, but it does not indicate a specific tempo.<sup>52</sup> Like all tempo indications of the period, its purpose is to convey a sense of manner or character of execution. According to Quantz, an *Allegro* movement must not be played more quickly than one is capable of handling the most difficult passages; thus, it should never depart from being a controlled movement.<sup>53</sup> Moreover, he suggests that the performer's

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<sup>49</sup> Sébastien de Brossard, *Dictionnaire de musique* (Paris: Christophe Ballard, 1703), under “Aria.”

<sup>50</sup> Hammer, interview.

<sup>51</sup> Kim, 58, 78.

<sup>52</sup> *Grove Music Online*, s.v. “Allegro,” <http://www.oxfordmusiconline.com/subscriber/article/grove/music/00606> (accessed February 4, 2013).

<sup>53</sup> Quantz, 56.



goal should not be to merely elicit the audience's admiration, but rather to seek their affection.<sup>54</sup> As a result, it must not be performed mechanically.

In his *Musikalisches Lexikon* Heinrich Christoph Koch remarks that the performance of an *Allegro* requires clear articulation of the notes, which should only be slurred together either when this is explicitly indicated or when a prominent cantabile section makes it necessary.<sup>55</sup> This advice is quite valuable with regard to choosing which notes to slur and which to pluck; for technical reasons, most guitarists slur measures 3, 4, 17, 27, 28, 42, and 43 in the *Allegro*, although Bach did not add phrasing to those passages.

The reason for Bach's omission of many changes to the original violin version in his harpsichord arrangement remains uncertain and speculative. It might just have been for a trivial reason; as Hermann Keller once remarked concerning Bach's arrangement of Reincken's trio sonatas it seems that Bach, at this point, lost his interest in spending more time with the transcription of the piece.<sup>56</sup> But other factors may have influenced Bach's decision to maintain the original, elementary texture.

Frank Macomber observed that an *Allegro* in Bach's music generally takes on the style of a keyboard toccata.<sup>57</sup> Bach frequently demonstrated flexibility in manipulating the conventions of musical genres; hence, his harpsichord toccatas are of an individual design, tightly knit, and where rhapsodic figuration is subordinated to passages in regular rhythm.<sup>58</sup> Interestingly, the texture of this *Allegro* is similar to that of the first eighteen measures of Bach's Toccata in F-sharp minor (BWV 910) and to the texture of the Fantasia of the Chromatic Fantasy and Fugue

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<sup>54</sup> Ibid.

<sup>55</sup> Heinrich Christoph Koch, *Musikalisches Lexikon* (Frankfurt am Main, 1802), 131.

<sup>56</sup> Keller, 104. "Es scheint, daß Bach an dieser Stelle die Lust verloren hat."

<sup>57</sup> Frank S. Macomber, "Bach's Re-Use of his Own Music: A Study in Transcription" (PhD diss., Syracuse University, 1967), 499.

<sup>58</sup> *Grove Music Online*, s.v. "Toccata," <http://www.oxfordmusiconline.com/subscriber/article/grove/music/28035> (accessed February 4, 2013).

in D minor (BWV 903). In those keyboard works Bach also used a lot of arpeggios to outline the harmonic structure, and it seems that in those cases his goal was to imply certain harmonies instead of indicating explicit ones.

Thus, in this instance, he contents himself with altering the seemingly monophonic texture of the violin version into a simple two-voice structure.<sup>59</sup> In so doing, Bach designed the last movement of his Sonata in D minor (BWV 964) in the manner of a graceful keyboard accompaniment, concerning which his son Carl Philipp Emanuel Bach later wrote that such an accompaniment ought to be conducted with “discretion” and “modesty.”<sup>60</sup> In his arrangement, Johann Sebastian Bach intentionally begins the sonata with a heavy and sad *Grave*, or *Adagio* respectively, and he ends the work with a light and lively *Allegro*.

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<sup>59</sup> Keller, 106.

<sup>60</sup> Carl Philipp Emanuel Bach, *Versuch über die wahre Art das Klavier zu spielen*, 2nd part, 5th ed. (Leipzig: C. P. Kahnt, 1925), 78. “Der gewöhnlichste Ausdruck, wodurch man einen guten Accompagnisten kennbar machet, pfelet dieser zu seyn: er accompagniret mit Discretion.... Er suchet mit der grössesten Bescheidenheit denenjenigen, die er begleitet, ohngeacht er sie zuweilen mit seinen Kräften übersiehet, die erwünschte Ehre mit zu erwerben.”

## CHAPTER 4

### DERIVING BACH'S PRINCIPLES OF TRANSCRIPTION

Based upon the aforementioned observations, the primary method of inquiry into Bach's transcription process involves systemic analytical approach. The analysis here consists in comparing Bach's Violin Sonata No. 2 (BWV 1003) with his transcribed version for harpsichord (BWV 964), and to account for all the major changes Bach has employed in his arrangement.

For the sake of clarity and elucidation, the following examples feature a juxtaposition of the two versions in which the keyboard transcription – originally in D minor – is transposed to A minor, the original key of the sonata. It is from the differences revealed through a comparative analysis that principles of transcription will be derived and organized according to discrete categories: harmonization, ornamentation, alteration, and re-composition. These descriptive categories are inextricably connected to performance practice issues as are changes made in tempo indications.

#### Harmonization

Johann Sebastian Bach begins the process of transformation immediately by writing fuller chords at the outset of the sonata. As one can see in Example 4, the composer-transcriber added notes of the triad in the lower register in order to give more weight to each chord as befitting to the *Grave* character of the movement. Bach also complemented the bass voice by proceeding downward by step; this was not possible in the original because the small-octave G is the lowest note on the violin.

Example 4: *Grave/Adagio*, m. 1

The musical score for Example 4, m. 1, is presented in a grand staff with a common time signature (C). The treble clef part begins with a chord of C4, E4, and G4. The right hand then plays a trill (tr) on the G4 note, which is marked with a fermata. The left hand plays a series of chords: C4-E4-G4, C4-E4-G4, and C4-E4-G4, with a fermata over the final chord. The bass clef part plays a series of chords: C4-E4-G4, C4-E4-G4, and C4-E4-G4, with a fermata over the final chord.

Example 5 shows how Bach supplemented the diminished chord on beat three by adding the appended F-sharp and enlarging the texture in order to emphasize the dissonance at the final cadence of the opening movement of the sonata. Since the harpsichordist can create the illusion of an increase of dynamics by expanding texture, harmonization of chords with little texture is generally used for the purpose of their reinforcement.

Example 5: *Grave/Adagio*, m. 20

The musical score for Example 5, m. 20, is presented in a grand staff with a common time signature (C). The treble clef part begins with a chord of C4, E4, and G4. The right hand then plays a series of chords: C4-E4-G4, C4-E4-G4, and C4-E4-G4, with a fermata over the final chord. The left hand plays a series of chords: C4-E4-G4, C4-E4-G4, and C4-E4-G4, with a fermata over the final chord. The bass clef part plays a series of chords: C4-E4-G4, C4-E4-G4, and C4-E4-G4, with a fermata over the final chord.

Example 6: *Fuga*, m. 52

Example 7: *Fuga*, mm. 288-289

In Example 6, the diminished chord on D-sharp is supported by the repetition of the melodic tone F-sharp. The same enhancement of harmony can commonly be observed at cadential points as well. Thus, the end of the fugue (Example 7) features an equivalent harmonic intensification. However, Bach not only harmonized chords in order to enrich a thin texture. The composer also frequently added extra voices based upon improvised ornamentation, the commonly taught technique which, according to musicologist Putnam Aldrich, every student of vocal or instrumental performance had to learn during the Baroque period.<sup>61</sup>

### Ornamentation

Melodic elaboration was generally a feature in Bach's own transcriptions. As it was Bach's habit to write out ornamentation of simple melodies, a knowledgeable transcriber would not expect all of them to be executed by a performer.<sup>62</sup> Instead he would apply improvised diminution principles, which were universally practiced at the end of the Baroque period,

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<sup>61</sup> Aldrich, 28.

<sup>62</sup> *Ibid.*, 29-31.

especially in Germany and Italy.<sup>63</sup> Besides the ornamented passages, cadential points, as seen in the subsequent excerpt of the *Allegro* (Example 8), were commonly decorated.

Example 8: *Allegro*, m. 18



Example 9: *Andante*, mm. 22-23



It was Bach's habit to embellish cadences with trills, chromatic lines, and arpeggios; however, his highly elaborated melodies were accompanied by simple harmonic structures and

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<sup>63</sup> Ibid., 32.

vice versa.<sup>64</sup> As a result, his compositions and transcriptions do not sound needlessly complex but enriched. For example, Bach wrote one of the trill signs above the dominant chord of the cadence, which he used interchangeably in his music.<sup>65</sup>

A simple and delicate way of ornamenting a melodic tone is by the use of grace notes (Example 9). Bach had literally all sorts of possibilities in his repertoire and employed them in his music according to the genre, the mood, and the musical context of the passage. Whereas Example 9 features two plain grace notes, Examples 10 and 11 reveal Bach's compositional art in creating an elaborate written-out ornamentation. The former (Example 10) includes two turns as an alternative to the original stepwise ascending-thirds motion, and the latter (Example 11) shows an ornament by use of an ascending scale in each hand of the keyboard.

Example 10: *Andante*, m. 9



Example 12 demonstrates how Bach substitutes the short scale motive on beat one in the violin version for the written-out turn in his harpsichord transcription.

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<sup>64</sup> Hii, 29-30.

<sup>65</sup> Willard A. Palmer, "Music Manuscript Notation in Bach." <http://www.iment.com/maida/familytree/henry/music/bachnotation.htm> (accessed February 14, 2013).

Example 11: *Fuga*, mm. 280-282

Example 12: *Grave/Adagio*, m. 13

With regard to keyboard transcriptions ornamentation was essential to sustain a melodic line. Unlike long held notes sustained on a violin, execution of such a commonplace gesture on the harpsichord demanded the realization of trills and other decorative embellishments.<sup>66</sup> The guitar, as a plucked instrument likewise must rely on adding ornaments. As already observed in

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<sup>66</sup> Paul, 307.



the previous examples regarding written-out ornamentation, alteration of pitch and rhythm was an essential element in Bach's transcription.

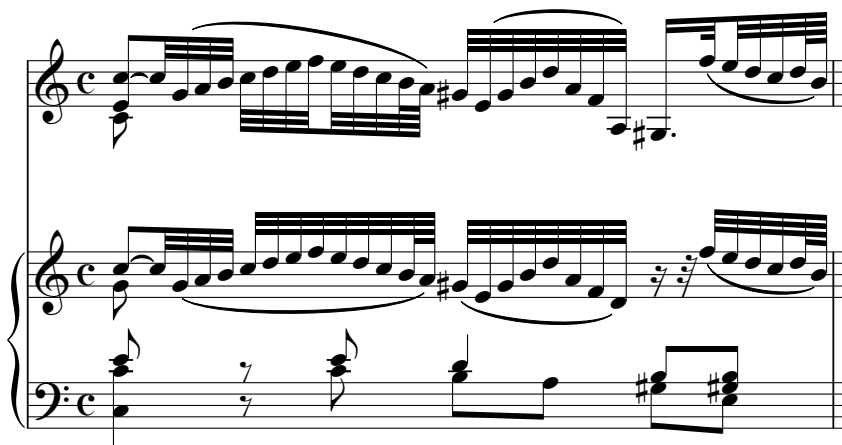
### Alteration

In order to arrange a piece of music for another instrument, one can hardly avoid the procedure of alteration. At this point, it is quite noteworthy that Bach did not regard his compositions as immutable texts.<sup>67</sup> Instead, he was not hesitant to alter pitch and rhythm of certain passages in his Sonata in D minor (BWV 964).

### *Pitch*

In his transcription Bach oftentimes alters pitches for a compositional reason. By adding another voice to the existing one, certain notes happen to be doubled and therefore need to be adjusted according to the theory of harmony. In Example 13, Bach added a bass line to the figuration of the right hand, descending downwards by step from C to G-sharp in eighth notes.

Example 13: *Grave/Adagio*, m. 7

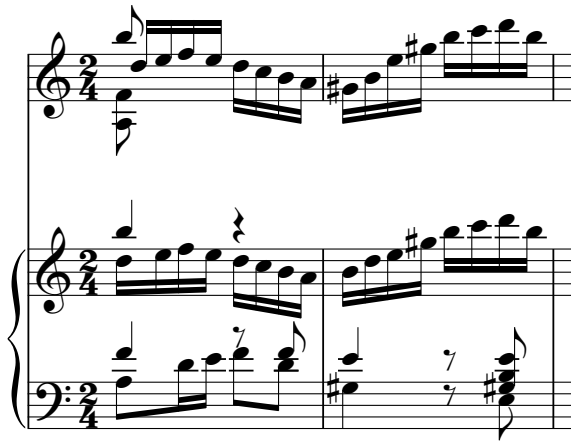


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<sup>67</sup> Ibid., 308.

Since the composer introduces the A earlier in the bass within beat three, he replaces the A in the right hand by a D, and thus doubles the root of the passing six-four chord. A similar compositional adjustment is illustrated in the subsequent examples. In Example 14, we can observe that Bach continues the sixteenth-note figuration in the right hand via B on the first beat of m. 68, because he chose to use the leading tone G-sharp in the bass. In order to avoid a tone repetition, the second note is substituted for D, the seventh of the E Major chord.

Example 14: *Fuga*, mm. 67-68



In Example 15, Bach prefers to continue the sixteenth-note motion and therefore adds the lower neighboring tone after the first note of each measure. Since he also opted to outline a descending fifth motion in the bass, the harmony on beat two of m. 34 becomes a B-flat Major chord with a major seventh. However, by retaining B-natural as the last note of m. 34 a so-called *Querstand*, or a chromatic cross-relation between two notes of adjacent chords results.<sup>68</sup> Bach

<sup>68</sup> *Grove Music Online*, s.v. “False relation,” <http://www.oxfordmusiconline.com/subscriber/article/grove/music/09269> (accessed February 23, 2013).

subsequently directs the melody back to D and ties it over to m. 35, in order for it to function as the seventh of an E minor chord and then to provide a four-three suspension on A Major.

Example 15: *Fuga*, mm. 34-35



The musical score for Example 15 consists of three staves in 2/4 time. The top staff is a single melodic line with eighth-note patterns and slurs. The middle staff is a grand staff with a treble clef, containing a complex rhythmic pattern of sixteenth and thirty-second notes. The bottom staff is a grand staff with a bass clef, featuring a simple bass line with quarter and eighth notes.

Example 16: *Grave/Adagio*, m. 11



The musical score for Example 16 consists of three staves in common time. The top staff is a single melodic line with a long slur over a series of notes. The middle staff is a grand staff with a treble clef, containing a complex rhythmic pattern of sixteenth and thirty-second notes. The bottom staff is a grand staff with a bass clef, featuring a simple bass line with quarter and eighth notes.

Such a subliminal harmonic indication is also featured in Example 16. Here Bach is seemingly not content with the F<sup>#</sup>-E-F<sup>#</sup> motion within the thirty-second-note figure of beat two

any longer. Hence, he substitutes it for an F<sup>#</sup>-D<sup>#</sup>-E suggesting E minor as the new key area earlier in the cadence. Apart from this marginal alteration, Bach composes a bass voice diatonically in parallel sixth motion to the ascending line which moves in thirty-second notes towards the second beat. Moreover, already discussed transcription procedures like the harmonization of chords for the purpose of emphasis at cadential points, written-out ornamentation including a turn, as well as the use of a grace note can also be observed in Example 16 on beats three and four.

A slight alteration of a harmonic nuance occurs in the *Andante* of the sonata. Example 17 indicates that by substituting the flat-ninth of the chord for the root on beat three, the former dominant-seventh chord becomes diminished. Although the new sonority thereby provides a slightly different flavor, the result is not a major change. The dominant function of the chord is still preserved. Besides the different harmonic color, Bach's decision in favor of D instead of E-flat in the original violin version is certainly due to the limitation of the violin.

Example 17: *Andante*, m. 24

The image shows a musical score for Example 17, consisting of a violin part and a piano accompaniment. The music is in 3/4 time. The violin part begins with a melodic line that includes a grace note and a turn on the third beat. The piano accompaniment features a bass line that moves in parallel sixth motion to the ascending line of the violin. The score is written in a key signature of one flat (B-flat major or D minor).

In the following example (Example 18) taken from the *Fuga*, one can observe an alternative solution which Bach obviously made because of the limited range of the instrument. With the small-octave G being the lowest note on the violin, Bach cannot use the lower neighboring note F in m. 239; thus, he writes the upper neighboring note A instead. Besides his addition of counterpoint in his transcription for harpsichord, he sequentially continues the head motive of the fugue downwards: A-G-A, G-F-G.

Example 18: *Fuga*, mm. 238-239

The image shows a musical score for two staves. The top staff is in treble clef, and the bottom staff is in bass clef. The time signature is 2/4. The key signature has one flat (B-flat). The music consists of two measures. In the first measure, the violin part has a half note G4, and the harpsichord part has a half note G4. In the second measure, the violin part has a half note A4, and the harpsichord part has a half note G4. The harpsichord part includes some grace notes and slurs.

Example 19: *Allegro*, mm. 51-52

The image shows a musical score for two staves. The top staff is in treble clef, and the bottom staff is in bass clef. The time signature is common time (C). The key signature has one flat (B-flat). The music consists of two measures. In the first measure, the violin part has a half note G4, and the harpsichord part has a half note G4. In the second measure, the violin part has a half note A4, and the harpsichord part has a half note G4. The harpsichord part includes many grace notes and slurs.

Example 19 features a logical continuation of preceding material as well. Here Bach alters a melodic fragment in m. 52 by moving the descending triad up a third in order to continue the falling-third sequence E-C-A, C-A-F with A-F-D. Moreover, he strengthens the harmony by adding A as the diatonic seventh resulting in a chord change from  $vii^0$  to  $vii^{o7}$ .

### *Rhythm*

Apart from the alterations of pitches, Bach also frequently changed rhythmical note values. In Example 20, he converted the two thirty-second notes that lead over to beat three into sixteenth notes, presumably in order to give a little more time for the sound of the harmonized note until the A minor sonority is replaced by a C Major first-inversion chord. The resultant block chords generally require that they are played at a more moderate pace. Rhythmic alteration has the potential to fundamentally change the character of the piece. Besides his addition of counterpoint, Bach alters some of the note values in the next three examples in order to revitalize them with contrasting figuration.

Example 20: *Grave/Adagio*, m. 3

The image shows a musical score for Example 20, m. 3, in common time (C). The score is written for a single melodic line in the treble clef and a basso continuo line in the bass clef. The treble clef part begins with a sixteenth-note run, followed by a trill (tr.) on a dotted quarter note, and then another sixteenth-note run with a trill (tr.) on a quarter note. The bass clef part features a sixteenth-note run, followed by a quarter note with a trill (tr.) and a quarter rest, and then another sixteenth-note run with a trill (tr.) and a quarter rest. The score is set in a key with one flat (F major or D minor).

Example 21: *Fuga*, m. 140



In Examples 21 and 22, he delays notes of the melody. The resultant syncopation presents a lively alternative to the rather static, homophonic eighth-note rhythm in the original violin version. Example 23 demonstrates how Bach rearranges the melody into a passage of a free figuration without altering the material. Additionally, he sets the head-motive figure of the fugal exposition down an octave.

Example 22: *Fuga*, mm. 157-161



According to Leslie Paul, it was Bach's habit when writing for keyboard to use "pianistic" figures and different dispositions of the violin section in order to highlight

distinctions.<sup>69</sup> Although sometimes changing the texture of a passage, it seems that Bach's intention was to maintain the overall character of the piece.

Example 23: *Fuga*, m. 39



Example 24: *Andante*, m. 8



In Example 24, Bach leaves out the E at the end of m. 8 and converts the preceding two thirty-second notes into one sixteenth note, presumably to insure that the movement with its calmly walking bass is not disturbed.

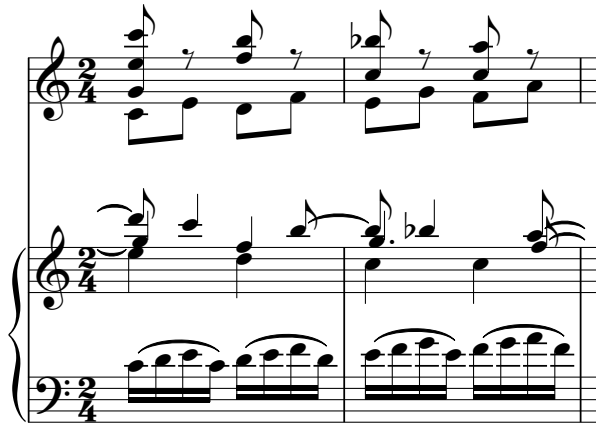
The subsequent example (Example 25) shows that Bach not only replaces the sequential eighth-note bass figure by a sixteenth-note variation, but he also delays the melody by an eighth-note in order to create suspension figures. Hence, the passage features more contrast and rhythmic distinction between the voices. At the outset of m. 22 in the third movement *Andante* (Example 26), Bach first outlines the melodic tone and resolution of the chord C; after that, he seizes on the suspension figure by ornamenting the C on the fourth eighth-note. In so doing, Bach effectively prepares and transitions to the following context of a sixteenth-note figuration.

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<sup>69</sup> Paul, 307.



Example 25: *Fuga*, mm. 92-93



Example 26: *Andante*, m. 22



The same procedure has been applied in m. 53 of the last movement *Allegro* (Example 27) as well. Here Bach shifts the place of the two thirty-second notes within beat two by anticipation. The probable purpose of this modification is to realign the thirty-second-note figure according to the rhythmically corresponding beat three.

Example 27: *Allegro*, m. 53



These examples are among countless instances that could have been used to demonstrate Bach's alterations. He modifies pitches and rhythmical figures in order to adjust passages to the specific instrument for which he arranges. Although these alterations do not change the character of the piece, Bach does not hesitate to re-compose comparable passages.

### Re-composition

As Philip Hii mentions in his article, Bach's "concern in the transcription [of Violin Sonata No. 2 (BWV 1003)] is primarily that of greater elaboration, greater complexity, and the clarification of the musical structure."<sup>70</sup> In the examples that follow, he re-composes the melody and counterpoint in select, representative passages.

### *Melodic*

One way of re-composing a melody is to change its register by transposing as is illustrated below. In order to make a clear distinction between the voices, Bach sets the line

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<sup>70</sup> Hii., 31.

B-C-D-E-F-D-G<sup>#</sup> within beat two of m. 9 of the *Adagio* (Example 28) an octave lower. He seemingly prefers the small-octave G-sharp, being closer to the bass note B on beat one. Thus, the respective melodic line serves as connection between B and G-sharp.

Example 28: *Grave/Adagio*, m. 9

Example 29: *Fuga*, m. 112

Example 30: *Fuga*, m. 71

In Example 29, Bach puts the last three notes C-A-C an octave higher in order to tie over the first note C to form a transition to the following material of the subsequent measure. The

resultant connection of disjunct intervals is a very common procedure found in Bach's melodic re-composition. In m. 71 of the *Fuga* (Example 30) Bach adds G and A in the melody, thereby connecting the notes F-sharp and B.

Example 31: *Allegro*, m. 58



Instead of finishing the violin sonata (BWV 1003) on the two-line octave A, Bach creates unusually disjunct ending by leaping from the two-line octave G-sharp to the small-octave A. In his harpsichord transcription (BWV 964), however, he ends the melody on the expected two-line octave A. This is followed by a descending arpeggio, which concludes with the two bass notes – small-octave A and great-octave A – on beats three and four of the last measure. In Example 32, Bach replaces the stepwise ascending eighth-note figure by a free sixteenth-note variation in the right hand, in a similar manner to what he does in the left hand ten measures later in the fugue (see Example 25). These two examples (Examples 25 and 32) suggest that he introduced the changes as a result of improvising at the keyboard.

Example 32: *Fuga*, mm. 82-83



An example of another melodic figuration spontaneously conceived at the keyboard can be found in the second measure of the *Andante* (Example 33). In place of the eighth notes F-A in the second beat of the melody, Bach sets the sixteenth notes F-E-F-A. In so doing, the tritone B-F and thus the G Major-seventh first-inversion chord is prolonged for a short duration.

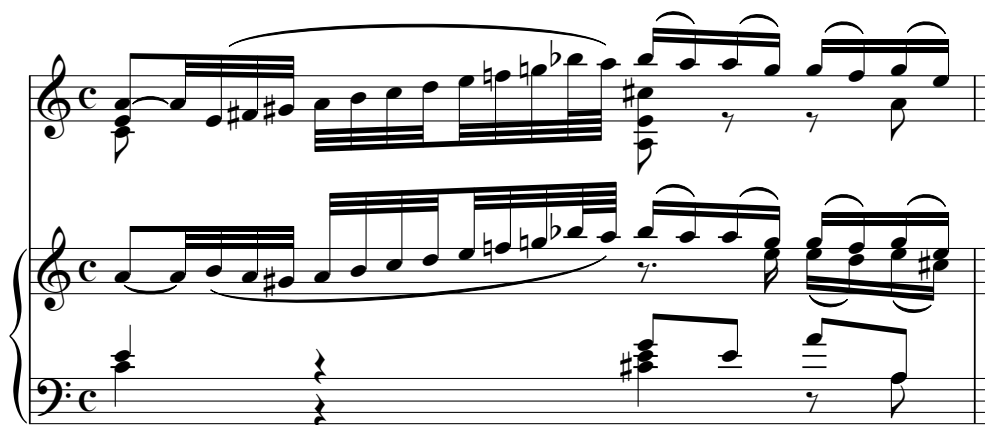
Example 33: *Andante*, m. 2



Apart from improvised figuration and the addition of notes in order to connect disjunct intervals, Bach also supports a melodic line through the addition of parallel thirds or sixths.

Although already included in Chapters 5 and 6, the next two examples (Examples 34 and 35) feature the parallel thirds, and sixths respectively.

Example 34: *Grave/Adagio*, m. 13



The musical score for Example 34, m. 13, is presented in a grand staff with treble, alto, and bass clefs. The time signature is common time (C). The right hand (treble clef) features a melodic line with a slur over the first two measures, followed by a series of parallel thirds in the final two measures. The left hand (bass clef) features a similar melodic line with a slur over the first two measures, followed by a series of parallel sixths in the final two measures. The key signature has one sharp (F#).

Example 35: *Grave/Adagio*, m. 11



The musical score for Example 35, m. 11, is presented in a grand staff with treble, alto, and bass clefs. The time signature is common time (C). The right hand (treble clef) features a melodic line with a slur over the first two measures, followed by a series of parallel sixths in the final two measures. The left hand (bass clef) features a similar melodic line with a slur over the first two measures, followed by a series of parallel thirds in the final two measures. The key signature has one sharp (F#).

In Example 36, however, Bach does not re-compose the end of the measure by adopting parallel motion. Instead, he ties over the A on beat two and leaves out the three sixteenth notes B-A-G in order to avoid parallel fifths. He seemingly prefers to continue the contrapuntal line in

the left hand over maintaining the original transition to the subsequent measure. The addition of counterpoint is Bach's predominant type of change in the Sonata in D minor (BWV 964).

Example 36: *Fuga*, m. 167



### *Contrapuntal*

The second movement *Fuga*, because of its texture, features most of Bach's alterations in his Sonata in D minor (BWV 964). At the beginning of the fugue (Example 37) one can observe that the counter subject is introduced in m. 4 of the violin version, whereas the statement of the tonal answer occurs in m. 3. However, in his transcription for harpsichord Bach adds material to the counter subject in order to begin the counterpoint one measure earlier.

A systematic examination of Bach's contrapuntal techniques employed in the sonata reveals three types of added counterpoint: parallel, oblique and contrary motion. Counterpoint contrary to the melodic line may be seen earlier in Example 36. In Example 38 the composer sets a sixteenth-note line against the already existing head-motive of the fugal subject entry.

Although descending for the most part, the contrapuntal line in the left hand presents a short upward motion that makes C-B-C move parallel to A-G<sup>#</sup>-A.

Example 37: *Fuga*, mm. 1-4



Example 38: *Fuga*, m. 7



Sometimes Bach rearranges the

former contrapuntal structure of passages in the violin sonata. In Example 39, for instance, he uses the sixteenth notes D-C an octave lower to start a descending diatonic line in B-flat Major. After ascending back to D in the right hand, the repetition of the two-line octave D as an eighth-note results in oblique counterpoint motion. In addition, Bach shifts from a B-flat Major to a

G Major chord within beat two of m. 254 in the fugal movement. Moreover, in his transcription the composer sets aside the A of the lower voice that he used earlier in the violin sonata. This excerpt features a contrary motion with the notes B<sup>b</sup>-C-D in the right hand and D-C-B<sup>b</sup> in the



system of the keyboard score. Apart from employing diverse approaches to voice leading in contrapuntal textures, Bach elaborates the head-motive of the fugal entry in a variety of ways. As shown in the following example (Example 40), the passage provides a prominent illustration for one specific method of developing

Example 39: *Fuga*, m. 254



the motive. Here, the composer employs the motivic material in order to compose an additional counterpoint against the one from the violin version. In so doing, Bach uses the head-motive on an upbeat in m. 19, and subsequently on a downbeat in the next measure.

Example 40: *Fuga*, mm. 19-20



Example 41 features motivic elaboration as well. In this case, Bach replaces the previously descending triads A-E-C and F-C-A, each at the beginning of mm. 180-181, with the

head-motive C-B-C and A-G<sup>#</sup>-A respectively. Because of the low range of this passage, the counterpoint is essentially woven into the musical context.

Example 41: *Fuga*, mm. 180-181

The musical score for Example 41 is in 2/4 time. The top staff is a single melodic line. The bottom staff is a grand staff with treble and bass clefs. The music consists of eighth and sixteenth notes with various accidentals.

Example 42: *Fuga*, mm. 128-131

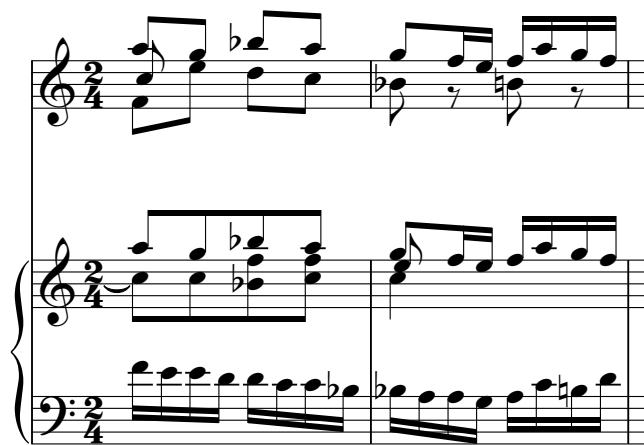
The musical score for Example 42 is in 2/4 time. The top staff is a single melodic line. The bottom staff is a grand staff with treble and bass clefs. The music features a prominent sixteenth-note running bass line in the bass clef.

The sixteenth-note running bass in Example 42 presents a further demonstration of Bach's contrapuntal additions. Comparable to the passage shown in Example 40, the composer made extensive use of the original material and adds a new voice in the bass. In this instance,

Bach employed for the most a line of consecutive sixteenth notes, alternately ascending and descending by step. Thus, the juxtaposition of quarter notes, eighth notes, sixteenth notes, suspension figures and head-motive generates an apparent rhythmical variety.

The following excerpt taken from the fugue (Example 43) is re-composed in a similar fashion. However, the added descending sixteenth-note bass voice does not merely proceed in stepwise motion. Except for the beginning and ending note of the line, Bach repeated the notes in between in order to anticipate the subsequent chord. By anticipating the bass note by a sixteenth note, the former consonance in the right hand consequently becomes a dissonance resulting in a suspension figure. As this example illustrates, Bach not only employs counterpoint in order to provide diversity or motivic elaboration, but he uses it to underscore harmonic nuances as well.

Example 43: *Fuga*, mm. 203-204



The small selection of provided examples illustrate Bach's use of various transcription methods. Although not equally feasible on the classical guitar, the derived procedures are nonetheless highly instructive.

## CHAPTER 5

### APPLYING BACH'S PRINCIPLES OF TRANSCRIPTION

The previous chapters demonstrated Bach's transcription methods employed in his Sonata in D minor (BWV 964) for keyboard. As I have shown, his re-compositional choices depend on the instrument the arrangement is to be made for. Because each musical instrument presents its own set of limitations and challenges, some passages cannot be transferred literally, while others despite their complexity and sophistication can be realized upon careful study.

What follows is a discussion of some limitations and challenges a transcriber confronts in creating an aesthetically and technically satisfying arrangement. Apart from problems related to the idiosyncrasies of the classical guitar, the next two chapters provide a set of practical guidelines with broad applicability.

#### Limitations

When arranging a work by Bach for guitar, transcribers are immediately faced with the instrument's limitations regarding texture and range. Thus, they need to find alternative solutions that are concordant with the style and the compositional techniques of the Baroque period. Such alternatives include transposition and all other methods, as discussed in Chapter 4. Textural modifications are also necessary for aesthetic reasons. For example, chords like those found in m. 7 on beat four of the *Adagio* (Example 44) would not project well on the guitar in such a low range, having said that the last chord cannot be realized in this formation.

Certainly, one must take into consideration that the guitar sounds one octave lower than its notation indicates. Therefore, Bach's harpsichord arrangement (BWV 964) is acoustically

still a forth higher compared to the A minor on the guitar.<sup>71</sup> Based upon the instrument-specific aesthetics of sound, the small-octave G-sharp should be played more effectively without its third B, as demonstrated in Example 44. In addition, the following example shows an effective alternative to the unfeasible triad E-G<sup>#</sup>-B played on the last eighth note.<sup>72</sup> With the G-sharp an octave higher, the texture of the chord is also more balanced. The registral shift avoids the juxtaposition of two simple thirds and a compound fourth.

Example 44: *Adagio*, m. 7

Moreover, the guitar is limited with regard to its range. Hence, in transcribing from the keyboard, notes or even melodic lines sometimes have to be played an octave higher. However, Example 45 reveals that a voice crossing would result, if the left hand of the harpsichord score was put up an octave. Consequently, the bass voice of this passage has to be re-composed for the guitar. Careful analysis of the three measures reveals that Bach uses a simple ascending triad on

<sup>71</sup> Due to the range of the classical guitar and its tuning, the original key of A minor is undoubtedly the most convenient key for a guitar transcription of Violin Sonata No. 2 (BWV 1003), and Sonata in D minor (BWV 964) respectively.

<sup>72</sup> Since the small-octave E and G-sharp can only be played on the sixth string, E-G<sup>#</sup>-B cannot be realized simultaneously in the lowest register of the guitar.

B Major and a descending sequence that outlines a D-sharp diminished-seventh chord in broken thirds. One possibility of translating this passage to the guitar would be to set the B Major triad an octave higher and to maintain the sequentially descending triad figure. Instead of employing the notes A-C-F<sup>#</sup>-A-D<sup>#</sup>-F<sup>#</sup> in dyads of ascending thirds one could alternatively proceed in three pairs of broken sixths that descend.

Example 45: *Fuga*, mm. 169-171

The musical score for Example 45 consists of two systems of piano accompaniment in 2/4 time. The first system has a treble and bass staff. The second system has a treble and bass staff. The music features a descending sequence of chords in broken thirds.

Example 46: *Fuga*, mm. 89-93

The musical score for Example 46 consists of two systems of piano accompaniment in 2/4 time. The first system has a treble and bass staff. The second system has a treble and bass staff. The music features a descending sequence of chords in broken thirds.

Since classical guitarists have only four fingers for the distinction of pitches and for building up chords, players are limited with regard to fingering as well. Example 46 illustrates passages that are impossible to be transferred from the harpsichord to the guitar. In this instance, because of such constraints it is impossible for guitarists to play the small-octave G on the first and fourth eighth-note of m. 91 while maintaining the melody in the upper register. By substituting the two small-octave notes for the one-line octave G instead, the notes can actually be played on the open string. Another implausible situation on the guitar involves the realization of the suspension figures in mm. 92-93, provided that one plays fuller chords and the sixteenth-note bass figuration. A preferable solution would be to use the chords without suspensions as they are notated in the original violin version.

Other changes in Example 46 need some brief explanation as well. The two-line octave G in m. 90 can only be tied over if played with the third finger. If we image the E minor chord (E-G-B) on the second eighth-note of m. 90 cannot be performed using fingers *1-3-2* because of the musical context and the tempo of the piece, it is inconsequential that G is played again with a delay of a sixteenth-note value. Instead of proceeding with the notes E-D-E-C in the bass of m. 89, the motion E-D-C is easier to realize for the guitarist. Although this change does away with the head-motive, the descending figure is in accordance with the E-D-C motion of the subsequent measure. Moreover, it demands less effort on the guitar, if one reverses the syncopation at the end of m. 90; thus, the two-line octave F-sharp is anticipated and the three-line octave C is deferred by a sixteenth note each.

Although the above-mentioned passages are feasible on the guitar, they are nonetheless extremely difficult to execute with ease. Every experienced guitarist would acknowledge that the fugue, especially with the added counterpoint from the harpsichord version, is extraordinarily

sophisticated. The following chapter deals with some of the major challenges in creating an idiomatic transcription for guitar.

## Challenges

Among the many challenges one may confront in striving to create a sophisticated transcription from harpsichord to guitar, my objective is to concentrate on specific difficulties usually absent in works written for guitar. What follows are examples that involve exceptional challenges for both the right and left hand. Especially in contrapuntal works by a composer of the caliber of J. S. Bach, idiomatic right-hand technique peculiar to the guitar needs to be replaced by complicated fingerings.

To the proficient guitarist, Example 47, for instance, looks rather simple. However, when played at a fast tempo in its respective context, this measure might cause some lack of clarity. Since the first three notes in the upper voice comprise an arpeggio and would therefore be played

with *i m a*, the two sixteenth notes in the middle of the measure have to be either plucked with *m i* or repeatedly with *i* instead.<sup>73</sup> Having said this, the difficulty of the the latter of the two solutions is conditioned by anatomical considerations.

Because *a* and *m* are joined by a tendon, the string crossing from the first to the third string by overleaping the second

Example 47: *Fuga*, m. 140



<sup>73</sup> Derived from the Latin terms *pollex*, *index*, *medius*, and *anularius*, the abbreviations *p*, *i*, *m*, *a* represent thumb, index, middle finger, and ring finger of the right hand.



does not feel natural and therefore must be practiced separately. Such challenges for the guitarist regarding the right-hand technique, be it the necessity of repetitive notes with the same finger or string crossings and awkward fingerings, are likely to be encountered in guitar transcriptions of Baroque works, especially in those by Johann Sebastian Bach.

In the following example (Example 48), the guitarist must simultaneously play the trill in the upper voice on the last beat of m. 22 and the bass line. The notes in question can be realized by a left-hand trill, while *p* plucks each of the bass notes. However, executing a trill with 4 and 3 on the second string is clearly disadvantageous.<sup>74</sup> The preferable solution would be to play the trill on two strings involving all fingers of the right hand, while the bass notes C and B are realized by slurs of the left hand, first a *hammer-on* and then *pull-off*.<sup>75</sup>

Example 48: *Adagio*, mm. 22-23

<sup>74</sup> The fingers of the left hand, index, middle finger, ring finger, and little finger, are abbreviated with the Arabic numerals 1, 2, 3, 4. The use of a 0 in the fingering indicates an open string.

<sup>75</sup> *Hammer-ons* and *pull-offs* are slurring techniques on the guitar. Instead of using the right hand to create the sound, the player either hammers down, or pulls off the string respectively, with a finger of his left hand.

Aside from possessing a unique musical quality, slurs are oftentimes employed by guitarists to allow the right hand to rest. In the following example (Example 49), two notes have

Example 49: *Fuga*, m. 116



to be slurred at the same time by a *hammer-on*. As a result, the guitarist not pluck all the pairs of sixteenth notes and thus can achieve a smoother and livelier execution of the passage. Although great demands are placed on the right hand of guitarists in performing polyphonic works in fast tempo, technical problems in using the left hand are even more challenging. Sudden shifts from one register to another and inconvenient stretches contribute to the difficulty of realizing most of

Bach's alterations in his harpsichord transcription (BWV 964) on the guitar.

The next example (Example 50), illustrates the need for bidirectional shifting by use of a single finger. While G-F#-G in the lower voice would most likely be played with 1-1-1, the upper-voice notes A-B-A require the shift 4-4-4. Moreover, in order to arrive on the first G in the bass in time, the left-hand index finger would ideally execute the preceding melodic note F-sharp

Example 50: *Fuga*, m. 71



by means of a so-called *hinge bar*.<sup>76</sup>

Changing the left-hand position by shifting only one finger is a commonly encountered technique in the creation of an effective fingering. The following example (Example 51) requires a slide of the third finger at the end of the measure. The figuration D-B-D on top of the bass note G-sharp can only sound together if one approaches C<sup>#</sup>-D by a 3-3 slide on the third string. In addition, a huge leap such as on the third beat, ranging from the small-octave G-sharp to the three-line-octave D, is rarely seen in guitar literature. Since these notes cannot be realized simultaneously by a stretch of *1* and *4* in standard guitar tuning, one is forced either to play the two notes separately or to employ the left-hand thumb. A further difficulty peculiar to this measure consists in sustaining the melodic note B on beat two, while playing the thirty-second notes in the bass. The only possible fingering would be to play in the fifth fret, realizing the two-line-octave B with the third finger and the bass line with *2-4-1-2-4-0*. The addition of proper

Example 51: *Adagio*, m. 9

The image displays a musical score for a single measure, Example 51, m. 9. It is written in treble clef with a key signature of one sharp (F#) and a common time signature (C). The score is presented in two systems. The first system shows the initial part of the measure, featuring a melodic line in the upper register and a bass line with a complex rhythmic pattern of thirty-second notes. The second system continues the piece, highlighting a large interval leap from a G-sharp in the lower register to a D in the upper register on the third beat. The notation includes various articulations such as slurs, accents, and a 'hinge bar' symbol (a wavy line) over the final notes of the measure.

<sup>76</sup> A *hinge bar* is a technique that entails playing a note on the first string with the part of the index most close to the palm in order to anticipate a bar.

slurs to emphasize the originally intended phrasing, as indicated in Example 51, further increases the level of difficulty.

The most difficult passage for the left hand regarding virtuosic fingering in my guitar transcription of Sonata in D minor (BWV 964) is illustrated in Example 52. The two measures involve a combination of shifting and stretching in a rapid pace. Stretching is especially sophisticated when the eighth-note chords are executed legato. Moreover, *p* has to play almost the entire bass line without relief from the busy left hand figuration.

Example 52: *Fuga*, mm. 203-204



The transformation of simple homophonic textures, as is the case in the original violin version (see Example 43), into Baroque counterpoint playable on the guitar may be one of the greatest challenges confronting the transcriber. Those transcribers who arrange Bach's fugal works would achieve the best results by composing the necessary bass voice contrapuntally to the upper voice instead of just adding bass notes for harmonic emphasis. As Example 52 demonstrates, the accessory counterpoint further provides suspension figures that underscore the

already existing harmonic complexity of the two measures. In this respect, musicologist Joseph Kerman notes the following:

Harmony changes with Bach more rapidly than with other composers; the change is a sort of oscillation, for when approaching a key Bach uses a sort of gloriously irregular spiral which ruminates, passes now to the subdominant, now sequentially through the mediant, and finally, as it reaches the key, seems paradoxically to have found it with the utmost certitude.<sup>77</sup>

As is clear from Kerman's observations, technique for Bach is merely a means to harmonic subtlety. The previous excerpt demonstrates Bach's mastery in transcription.

To sum up, one has to acknowledge that transcribers of Bach's music will have to deal with several issues in the course of their arrangement process. Although guitarists might disagree whether a certain passage is difficult or unfeasible to realize, such a distinction is valuable in order to become aware of the limitations of the instrument and capabilities of the instrumentalist. Any attempt to emulate Bach's skill in creating transcriptions with greater elaboration and complexity demands in-depth knowledge of the capabilities of the instruments involved and a deep understanding of the subtleties of J. S. Bach's compositional style.<sup>78</sup>

### Conclusion

Bach's Sonata in D minor (BWV 964) is indeed an expedient model for gaining insight into the art of arranging Baroque works. The principles elucidated through my examination of Bach's method of transcription is offered as a first step in understanding the depth of his recompositional techniques. Pedagogical value of the study is not limited to classical guitarists nor to the work examined.

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<sup>77</sup> Joseph Kerman, "Rhetoric and Technique in J. S. Bach," *The Hudson Review* 2, no. 1 (Spring 1949): 108.

<sup>78</sup> Hii, 31.

Certainly, a less complicated guitar transcription with fewer additions from Bach's harpsichord version (BWV 964) could arguably be an equally effective arrangement. However, it was my aim in making the arrangement to alert guitarists to the actual potential of their instrument, and to demonstrate what Bach presumably would have done, if he had written for guitar with knowledge of its capabilities.

Aside from the piece of this analysis, other transcription works by Bach such as Lute Suite No. 3 (BWV 995), Fuga in A minor (BWV 1000), or those arrangements made of compositions by his contemporaries are also worth examining in the same fashion. Whatever the works in question, Bach's transcriptions are a valuable and rewarding endeavor as I have shown. In the words of Johannes Brahms, "Study Bach: there you will find everything."<sup>79</sup>

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<sup>79</sup> Russell H. Miles, *Johann Sebastian Bach: An Introduction to His Life and Music* (Englewood Cliffs, NJ: Prentice Hall, 1962), 19.

APPENDIX

J. S. BACH'S SONATA (BWV 964/1003) ARRANGED FOR GUITAR

# Sonata

(BWV 964/1003)

Johann Sebastian Bach  
*arranged by Matthias Lang*

Adagio

The musical score is presented in 12 staves, numbered 1 through 12. The notation includes treble clefs, common time signatures, and various musical symbols such as trills (tr), triplets (3), and slurs. The key signature is one sharp (F#). The piece is marked 'Adagio'. The score shows a complex melodic line with frequent sixteenth-note passages and some chromaticism. There are several trills and triplet markings throughout the piece.



14

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22

Fuga (Allegro)

The image displays a musical score for a piece titled "Fuga (Allegro)". The score is written in 2/4 time and consists of ten staves of music. The key signature is one sharp (F#), and the time signature is 2/4. The music is highly polyphonic, with multiple voices moving in parallel motion. The notation includes various rhythmic values such as eighth and sixteenth notes, as well as rests and accidentals. The score is divided into measures, with measure numbers 7, 12, 17, 22, 27, 32, 37, and 42 indicated at the beginning of their respective staves. The overall texture is dense and intricate, characteristic of a fugue.

47

52

57

62

67

71

77

82

87

This musical score consists of ten staves of music, numbered 47 through 91. The notation is written on a single treble clef staff. The key signature is one sharp (F#), and the time signature is 3/4. The music is characterized by a complex, rhythmic texture with frequent sixteenth and thirty-second notes, often beamed together. The left hand plays a steady accompaniment of chords and single notes, while the right hand plays intricate melodic lines. There are several instances of slurs and accents throughout the piece. The score ends with a final measure at measure 91.

91

Musical notation for measures 91-95. The system consists of a treble clef staff and a bass clef staff. Measure 91 features a treble staff with a melodic line starting on G4, moving up stepwise to B4, and then down to A4. The bass staff has a bass line starting on G2, moving up to B2, and then down to A2. There are several accidentals, including a flat on B4 in measure 93 and a sharp on G4 in measure 94. Measure 95 ends with a fermata over the final notes.

96

Musical notation for measures 96-100. The system consists of a treble clef staff and a bass clef staff. Measure 96 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a flat on G4 in measure 97 and a sharp on G4 in measure 98. Measure 100 ends with a fermata over the final notes.

101

Musical notation for measures 101-105. The system consists of a treble clef staff and a bass clef staff. Measure 101 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a sharp on G4 in measure 102 and a flat on G4 in measure 103. Measure 105 ends with a fermata over the final notes.

106

Musical notation for measures 106-110. The system consists of a treble clef staff and a bass clef staff. Measure 106 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a sharp on G4 in measure 107 and a flat on G4 in measure 108. Measure 110 ends with a fermata over the final notes.

111

Musical notation for measures 111-115. The system consists of a treble clef staff and a bass clef staff. Measure 111 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a sharp on G4 in measure 112 and a flat on G4 in measure 113. Measure 115 ends with a fermata over the final notes.

116

Musical notation for measures 116-120. The system consists of a treble clef staff and a bass clef staff. Measure 116 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a sharp on G4 in measure 117 and a flat on G4 in measure 118. Measure 120 ends with a fermata over the final notes.

121

Musical notation for measures 121-125. The system consists of a treble clef staff and a bass clef staff. Measure 121 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a sharp on G4 in measure 122 and a flat on G4 in measure 123. Measure 125 ends with a fermata over the final notes.

126

Musical notation for measures 126-130. The system consists of a treble clef staff and a bass clef staff. Measure 126 features a treble staff with a melodic line starting on G4, moving up to A4, and then down to G4. The bass staff has a bass line starting on G2, moving up to A2, and then down to G2. There are several accidentals, including a sharp on G4 in measure 127 and a flat on G4 in measure 128. Measure 130 ends with a fermata over the final notes.

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Musical score for measures 256-286. The score is written in treble clef with a key signature of one sharp (F#). The time signature is 3/4. The music features a complex rhythmic pattern with many sixteenth and thirty-second notes. Measure 277 includes a trill (tr) over a note. Measure 286 ends with a double bar line and a 3/4 time signature.

**Andante**

Musical score for the beginning of the Andante section, measures 1-5. The score is written in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. The music is characterized by a slow, steady eighth-note accompaniment.



9 *tr*

1

5

9 *tr*

12

16

19

23 *tr*

26 12

15

18

22

24

**Allegro**

3

5

7

9



11



13



15



17



19



21



23



25



27



Detailed description: This image shows a page of musical notation for a piece in G major, 2/4 time. The notation is arranged in ten staves, each starting with a measure number. The music features a mix of eighth and sixteenth notes, often beamed together. The key signature has one sharp (F#). The piece concludes with a double bar line and repeat dots at the end of the final staff.

This musical score consists of ten staves, each beginning with a measure number: 29, 31, 33, 35, 37, 39, 41, 43, 45, and 47. The notation is written on a single treble clef staff. The music is characterized by a steady eighth-note rhythm. The melodic line features a variety of intervals, including major and minor thirds, fourths, and fifths. There are several instances of chromaticism, such as the sequence of notes in measures 31, 33, 35, 37, 39, 41, 43, 45, and 47. The piece concludes with a final cadence in measure 47, marked by a double bar line.

49

51

53

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57

This musical score consists of five staves of music, numbered 49 through 57. The notation is written in treble clef with a key signature of one sharp (F#). The music features a complex, rhythmic melody with frequent sixteenth-note patterns and slurs. The bass line is indicated by stems and beams below the staff lines. The score concludes with a double bar line and repeat dots at the end of measure 57.

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