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## BACH'S FIFTH CELLO SUITE, DOUBLE BASS AND SCORDATURA: PRACTICAL AND HISTORICAL SOLUTIONS

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BACH'S FIFTH CELLO SUITE, DOUBLE BASS AND SCORDATURA: PRACTICAL AND  
HISTORICAL SOLUTIONS

by

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B.A., Fort Lewis College, 2019

A Thesis

Submitted in Partial Fulfillment of the Requirements for the  
Master of Music Degree

Department of Music  
in the Graduate School  
Southern Illinois University Carbondale  
March 2021

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THESIS APPROVAL

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A Thesis Submitted in Partial  
Fulfillment of the Requirements  
for the Degree of  
Master of Music  
in the field of Music Theory and Composition

Approved by:

Dr. Walczak, Chair

Graduate School  
Southern Illinois University Carbondale  
March 20, 2021

## AN ABSTRACT OF THE THESIS OF

Thomas Willhoit, for the Master of Music degree in Music Theory and Composition, presented on March 20, 2021, at Southern Illinois University Carbondale.

TITLE: BACH'S FIFTH CELLO SUITE, DOUBLE BASS AND SCORDATURA:  
PRACTICAL AND HISTORICAL SOLUTIONS

MAJOR PROFESSOR: Dr. Walczak

J.S. Bach's *Six Suites for Solo Cello* have become part of the standard bass repertoire. Some of these suites contain chords that are physically impossible to play on a standard double bass tuned in fourths; thus, there are many performance editions and recordings that contain chord omissions and rearrangements. This essay explores some of the critical reception that double bassists' readings of the *Six Suites* have received. This knowledge is then taken to support practical performance solutions: scordatura (particularly tuning in perfect 5ths) and articulations from the urtext. The included examples demonstrate the technical and stylistic problems incurred while performing the *Cello Suites* on double bass and how this particular form of scordatura solves them.

## DEDICATION

This essay is dedicated to my late father-in-law, Orville “Chuck” Multine. He was a loving, soft-spoken father, husband and grandfather. He will be dearly missed.

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The double bass was so aptly named because it was created to double all the cello parts at an octave below in ensemble situations. By the nature of its existence, the double bass would eventually be used to perform solo cello literature. Performing J.S. Bach's *Six Suites for Cello* on double bass is a difficult endeavor unto itself. Some suites, especially the fifth, are technically impossible to play as written for cello on the double bass. There is no historical precedent for an accurate performance of the *Cello Suites* on double bass. However, informed interpretations are possible with an awareness of the musical conventions of that time. Some artists, such as Bernard Salles, have attempted to perform movements in various keys in an effort to adjust the technical feasibility of the chords, while other artists such as Gerd Reinke have rearranged the original melody and counterpoint to accommodate the technical limitations of the double bass. Few of these efforts have resulted in success.<sup>1</sup> Apart from the size discrepancy between the double bass and cello, the standard tuning in fourths presents the greatest challenge. A double bass is tuned E–A–D–G and the violoncello is tuned in fifths, C–G–D–A. The *Fifth Suite Prelude* calls for scordatura tuning on the cello; the A string is tuned down a whole step to G. One is compelled to consider the results if the double bass were tuned in exactly this manner. If the double bass employed a tuning exactly like that of the cello in the *Fifth Suite*, C–G–D–G (but down an octave) many problems that arise while attempting to perform the *Cello Suites* would be addressed. The problems in performing the *Cello Suites* as written are solved by the proposed scordatura tuning which allows these chords to be played idiomatically and voiced as notated in the original manuscript. In addition to these benefits, this tuning retains proper string tension in compliance with standard string manufacturing. If a performer adheres to the articulations

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<sup>1</sup> Andrew Kohn, "Bach Cello Suites for the Bass: The State of the Research," *Música Hodie* 9, no. 1 (2009): 11-30, <https://www.revistas.ufg.br/musica/article/view/3937/12404>.

provided in the Anna Magdalena Bach manuscript, a historically informed performance is possible on an instrument the piece was not intended for.

The Society for Historically Informed Performance states on their website, “[Historically Informed Performance]...means performing music with special attention to the technology and performance conventions that were present when a piece of music was composed.”<sup>2</sup> Historically informed ensembles perform with close attention to performance practices documented in treatises written by musicians such as Johann Joachim Quantz, Girolamo Diruta, Giulio Caccini or Leopold Mozart on subjects such as note length, rhythmic emphasis and ornamentation. These ensembles often use period instruments or modern instruments constructed with era-specific guidelines.<sup>3</sup> Musicologist and music historian Richard Taruskin takes great issue with the term “authentic” being used in historically informed performances and has written a series of essays in *Early Music* expressing his contentions. In his article, “The Authenticity Movement Can Become a Positivist Purgatory, Literalistic and Dehumanizing,” Taruskin advocates for the use of period-correct instruments for historically accurate performances yet acknowledges the hypothetical nature of historically informed performance practice and its roots as a contemporary reaction to modernist composition. He argues that it is impossible to play any music in the modern era devoid of modern sociocultural contexts nor is it guaranteed that modernly constructed period instruments are indeed accurate reconstructions to their historic counterparts. Therefore, Taruskin’s idea of inevitable modernity and the notion of being historically informed

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<sup>2</sup> “What is Historically Informed Performance?” The Society for Historically Informed Performance (website), accessed November 10, 2020, <http://www.sohipboston.org/what-is-hip>.

<sup>3</sup> “What is Historically Informed Performance?” The Society for Historically Informed Performance.

are valid points of departure for endeavoring to perform the *Cello Suites* on double bass, especially if care is taken to strictly adhere to the music as written in the urtext. However, if the most hypothetical and historically accurate performance is the salient concern, then performing on a baroque cello or viola da gamba with a flat bridge, gut strings and convex bow would be preferable.

Richard Hartshorne's recording on Centaur, *J.S. Bach: Six Solo Suites*, is an excellent example of a performance which acknowledges Taruskin's assertions. One must consider this recording to be historically informed as it is – in addition to being the very first recording of this piece for double bass - the only recording of the suites in their correct keys, voicings and registers.<sup>4</sup> This recording also has a sense of modernity as Hartshorne performs with metal strings and a concave bow. Although David Moore of *American Record Guide* was harsh in his initial critiques of Richard Hartshorne's tempi while performing the suites, he also praised the "excellent intonation," "nice feeling for the music," and stated, "clearly this is an important project." Moore continued, "But there is no faking, no shortcuts. Hartshorne goes for all the notes."<sup>5</sup>

Many other bassists have gone on to record Bach's *Six Cello Suites*, but most have received little fanfare. During the late 1990s and the decades that followed, the number of recordings of the *Six Cello Suites* on double bass exploded. In the Jan./Feb. '99 issue of *American Record Guide* a review of double bassist Gerd Reinke's interpretations of Bach's music begins, "The determination of double bassists to master the Bach *Cello Suites* is resulting

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<sup>4</sup> Kohn, "Bach Cello Suites for the Bass," 16-17.

<sup>5</sup> D. Moore, review of *J.S. Bach: Six Solo Suites*, by Richard Hartshorne (double bass), *American Record Guide* May/Jun., 1998.

in a good deal of torture on their part and, indirectly, on mine. It is impossible for me as a musician, let alone a cellist, to condone the results when there is continual out-of-tune playing, notes of chords rearranged, registers altered mid-phrase and a general approximation of both notes and rhythms in a slapdash attempt to maintain cello tempos at all costs.” The negative review goes on to note that Gerd Reinke “rearranged the music rather than the instrument.” His use of octave displacement (in some instances even two octaves) and grace notes in place of chords made it “difficult to identify the piece.” The critic lands a particularly harsh blow to Reinke’s recording by expressing, “I have seldom felt nauseated when listening to music, but this does it!”<sup>6</sup> Double bassist Bernard Salles also received a negative but less scathing review. In the Sept./Oct. ’00 issue of *American Record Guide* author David W. Moore states, “It isn’t a revelation. We learn nothing new from these readings: it is still an elephant groping in the wilderness.”

It seems as if David Moore’s initial critique of Richard Hartshorne’s pioneering effort was impetuous may have been overly severe. Moore soon rescinded his criticism of Hartshorne while reviewing Reinke’s recording, stating “One can admire the ingenuity of his solutions,” and noting the admirable quality of the tonic chord in the E ♭ suite. During these pejorative reviews the critic acknowledges that these pieces were originally composed for an instrument tuned in fifths (rather than fourths) which renders “most of the chords unplayable as written” on the double bass. Gerd Reinke’s recording received the harshest critique because the means by which he rearranged the music involved the omission of chords and the displacement of melodies.

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<sup>6</sup> D. Moore, review of *Bach: Solo Cello Suites*, by Gerd Reinke (double bass), *American Record Guide* Jan./Feb., 1999.

Bernard Salles' recording met similar criticism and even apathy because he transposed several of the pieces and also omitted chords. The recording by Richard Hartshorne was the best received of the *Six Cello Suites* on double bass. By use of scordatura he was able to remain absolutely faithful to the original score without altering anything whatsoever.

The negative reviews of artists who altered Bach's music provide compelling impetus to perform the *Six Cello Suites* as written, with no modifications, omitted chords or octave displaced melodies. The *Fifth Suite* contains the greatest number of chords and is particularly difficult. In order to play these chords as voiced, the double bass must be tuned C–G–D–G, an octave lower than the cello. This can be achieved by tuning the double bass in fifths while lowering the A string down to G.

FIGURE 1. The Anna Magdalena Bach manuscript.



FIGURE 2. The Mark Bernat edition of J.S. Bach's *Fifth Suite Prelude*.



The original opening notes of Bach's *Prelude to the Fifth Cello Suite* are a double stop. On a cello this is executed very easily by playing the open C string along with an octave C on the G string. However, this is technically impossible to execute on a double bass in standard tuning. The Mark Bernat edition of the *Six Cello Suites*, which is arranged for double bass in standard tuning, pragmatically addresses this problem by articulating the lowest C as a grace note. This solution has a drastic effect on the weight and character of the piece, and Moore did not mince his words in noting this. If the bass is tuned in fifths, however, the opening double stop becomes quite viable.

FIGURE 3. The opening of the *Fifth Prelude* (fifths tuning).



In FIGURE 3, the left hand can be seen in thumb position, fingering the upper C very easily with the third finger (G string) while the thumb is placed on the center node of the C string producing the natural harmonic an octave above the open string. The employment of the C harmonic activates sympathetic vibrations which induce a resonance that is overall more similar to a cello.

FIGURE 4. The *Fifth Suite Prelude* as edited by Hugo Becker.



The second measure of the *Prelude to the Fifth Suite* contains a four-note chord that is voiced C<sub>2</sub>–B<sub>2</sub>–F<sub>3</sub>–A<sub>3</sub>. The technical impossibility which arises from this chord is one of the reasons that Bach requires the cello to be tuned in scordatura. In the Hugo Becker edition of the *Cello Suites* (FIGURE 4) there are two lines of music; one in scordatura and one in standard cello tuning. In the notation for standard tuning, the F<sub>3</sub> is omitted from the chord. Without the A string being tuned down to G, it would be impossible to simultaneously finger the F and A<sub>3</sub>.

Mark Bernat addresses this problem by omitting C<sub>2</sub> and F<sub>3</sub> from this chord (FIGURE 2). This solution creates as many problems as it solves. The composer's intended harmony is obscured when half of the chord is missing. Such omissions in this rearrangement diminish the

overall integrity of the piece as observed in the review by *American Record Guide*. By tuning the bass C–G–D–G, Bach’s intended harmony can be fully realized.

FIGURE 5. Both halves of the slurred chord in measure two of the *Fifth Suite*.



In FIGURE 5 the fingering for double bass tuned in scordatura demonstrates how this chord can be achieved. Richard Hartshorne is the only known bassist to voice this chord properly, according to its written register.

The next technically impossible chord to play occurs in measure five, on beat three. This chord is voiced  $A \flat_2$ – $F_3$ – $C_4$  in the Anna Magdalena Bach manuscript illustrated above. The Mark Bernat edition of the *Six Cello Suites* arranged for double bass calls for the omission of the  $A \flat_2$ . This will greatly obfuscate the harmony and voice leading intended by Bach.



FIGURE 6. The difference between fourths tuned and fifths tuned fingerings.



The left side of FIGURE 6 makes apparent the futility of attempting this chord on a double bass tuned in fourths while the right demonstrates the ease in which proper voicing can be articulated by scordatura. In the left half of FIGURE 6 the first finger cannot reach a major sixth interval, nor can the high C, marked in yellow, be fingered. The right half shows the chord being fingered in an ergonomic manner.

Measure six of the *Prelude to the Fifth Suite* contains yet another instance of accurately voiced harmony that this particular tuning on the double bass can facilitate. The chord on beat one, measure six is voiced  $C_2-G_2-F_3-C_4$  in the Anna Magdalena Bach manuscript. In the Mark Bernat edition (shown in FIGURE 2) both the root,  $C_2$ , and the fifth,  $G_2$ , are omitted. Such a lack of fullness to the harmony is aesthetically deficient.

Scordatura, particularly tuning in fifths, is the obvious solution to facilitate a complete and accurate performance of Bach's *Six Cello Suites* on double bass. Utilizing the articulations provided in the Anna Magdalena Bach manuscript not only displays an historical awareness of the composition but also lends itself to the double bass's shorter bow. FIGURE 5 illustrates a

faithfulness to the phrasing and bowing articulations in the original score. Christophe Coin is a French cellist who is known for his performances and interpretations of Baroque era music. His recording of the *Fifth Suite Prelude* is a clear example of how successful the scordatura tuning is in regard to these articulations. The performance is used as a model for playing Bach's *Six Cello Suites* on double bass with its brisk tempi, well-tuned notes and chords, and exceptional phrasing. Apart from the highly evolved contemporary musicality, Coin's performance confirms Taruskin's idea of inevitable modernity in a variety of ways. The overall sonority has a modern sound by use of a concave bow and a hybrid baroque/modern bow grip. Additionally, he does not use a flat bridge like that of a baroque cello which hampers an ability to play sustained simultaneous notes; two separate double stops must be employed.

The unanimously frustrated reviews of the *Six Suites* illuminate a need for satisfactory realizations of Bach's composition. While critics took issue with many aspects of the piece's performances, the general consensus was that the performances were over dramatic and too romantic. In regard to double bass, the technical challenges compounded such interpretive problems. The critical reviews found in *American Record Guide* reveal a consensus that accurate realizations of these pieces without rearrangement were greatly desired. Such sentiment was reinforced in the harsh language of most critics; double bassist Bernard Salles' arrangements and interpretations were deemed "an elephant groping in the wilderness,"<sup>7</sup> while Gerd Reinke led critic David Moore to state, "I have seldom felt nauseated when listening to music, but this does it!"

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<sup>7</sup> D. Moore, review of *Bach: Cello Suites*, by Bernard Salles.

As a promising answer to the critics' call for "a better Bach," Richard Hartshorne's landmark recording on Centaur, *J.S. Bach: Six Solo Suites* demonstrates that it is not only possible to perform the suites in their entirety on double bass, but with aesthetic wholeness. From the octave double stops in the opening measure to the four-note chords that are spread throughout this work, the *Fifth Suite* can be expressed perfectly by tuning the double bass in fifths (C<sub>1</sub>–G<sub>1</sub>–D<sub>2</sub>–A<sub>3</sub>) while lowering the A string a whole step further. Christophe Coin's radio performance of the *Fifth Suite* on cello is a model for accurately expressing Bach's original articulations found in the Anna Magdalena Bach manuscript.<sup>8</sup> The scordatura double bass tuning suggested in this essay provides not only a means of generating resonance similar to the cello but provides a long awaited and necessary solution to an historically difficult musical problem.

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<sup>8</sup> MrSchmelzer1, "J.S. Bach suite for violoncello solo n°5 BWV 1011 by Christophe Coin," YouTube video of a radio capture, October 29, 2013, [https://www.youtube.com/watch?v=R\\_iOxkfnRoc&t=361s](https://www.youtube.com/watch?v=R_iOxkfnRoc&t=361s).

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