



**DET KONGELIGE DANSKE
MUSIKKONSERVATORIUM**

Taking a cello lesson from Bach?

Possible traces of Bach's ideas on fingerings, based on the discordata notation of the fifth cello suite, BWV 1011.

Part 1

On Discordata, page 1

Background, page 5

The development within the suites, page 7

And now to the fingerings, page 9

Part 2

Analyzing Bach's discordata writing: the four colors, page 12

Epilogue, page 17

Appendix, 1, page 21

Appendix, 2, page 30

On Discordata:

The manuscripts of Johann Sebastian Bach are of the highest interest to the classical music world. Even the smallest details can bring us closer to the understanding of Bach's composing, thinking, and likings.

From this perspective, the Fifth Suite for Solo Cello BWV 1011 stands out. Bach clearly indicates that the top string, A string of the instrument should be tuned down a whole step to a G3.

Since in three of the manuscript copies the tuning is labeled “Discordable”, I will use the word *discordata* (meaning “mistuning”) rather than the more common synonym “scordatura” in this article. In order to facilitate the performer’s reading of the suite, Bach writes every note that is meant to be played on the top string one whole step higher, making it possible for the cellist to play as if the string was tuned normally, but still achieve the sounding pitch Bach intended. Essentially, Bach does the performer a favor by eliminating the need to transpose the notes on the tuned-down string.

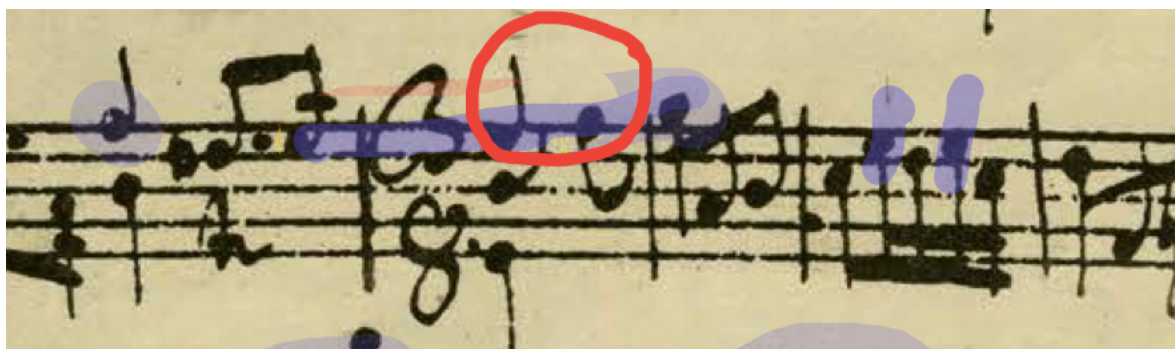
This is the only known instance of an instrument tuned unusually in the works of Bach. His reasons for doing this in the Fifth Cello Suite are both fascinating and mysterious and will be discussed later in this article.

(In the first Brandenburg Concerto (BWV 1046) Bach writes a solo part for a rare instrument, Violino Piccolo, which is tuned in fifths, a minor third higher than normal violin tuning. The construction of modern violin set up allows this tuning to be done on a normal violin, but for Bach this was another type of violin, meant to be better able to compete with the loud wind instruments around it. So, Bach does not indicate any *discordata*, and therefore this concerto cannot give us any indication of intended fingerings.)

By choosing this *discordata* notation – where all notes to played on the top string are written one whole note higher – Bach creates two different options for the notation of the same sounding note – one option for the top string, and one for the d-string. We can therefore clearly see which string Bach expected us to play, and out of this deduce which fingerings he expected us to use.

A sounding G3 can for instance be written both as the open top string, or as on the stopped D string. The same options exist for the sounding notes A flat, A, B flat, B, C, and so on, limited by the fact that Bach never exceeds fourth position in his writing for cello. The sounding F4 is the highest note in BWV 1011.

An example: The upper note in the cord ending of the introduction and the first note of the Fugue leading into the Fugue are both the note G3, but clearly notated on two different strings!



Since there are no written fingerings in the Bach manuscripts - and very few in Baroque manuscripts altogether - performance copies included - identifying the fingerings that can be deduced from Bach’s *discordata* writing in the fifth suite are therefore unique

Additional deductions

In addition to the concrete information on fingerings, we are able - from Bach's choice of strings and left-hand positions - to get quite many indications that suggest Bach's preferences concerning legato, colors, and structure. Staying on a string will generally produce a better legato than crossing strings.

Since Bach almost nowhere indicates dynamics, his choice of strings might suggest dynamics, as the four different cello strings do not sound equally loud. The top string typically sounds louder and brighter than the second string, so choosing between two alternative strings for a specific note or passage is often an artistic and - not only - a practical choice. Likewise, we find a few structural details: starting a new section – like the fugue in this prelude – is emphasized by starting on a new string.

Not only the volume but also the color of sound changes when you play the same note on two different strings.

Other observations offer us an idea of Bach's expertise in the instrumental/technical aspects of playing the cello in general, as well as the discordata-tuned cello for the fifth cello suite specifically. Here we find both expert fingerings for tricky spots, but we also find a few less successful ones, and a two or three straight up mistaken fingerings.

All this deepens our understanding of Bach and his world, which is comforting when we are circling in our personal interpretation of the music that is written by arguably the greatest composer that ever lived.

Admittedly, the material in question is of a modest scale. But I hope string players can benefit from some of the conclusions, and for any cellist working with those pages throughout their life, I suppose this analysis will be relevant.

Since Bach did not specify which string was expected to be played by writing the number of the string into his manuscript, like composers after him we might theoretically end up with completely wrong pitches by choosing the wrong string. Bach did trust our ears and harmonic understanding not to do so. If there should be any doubt left, we could still consult the lute version BWV 996, or the manuscript copy written by Johann Peter Kellner (1705-1772) that is not written for discordata playing. It is especially informative to consult Bach's autograph manuscript for the lute version of this suite. Not only does it answer questions on pitches still left after comparing the four manuscript copies, but the added bass lines deepen our harmonic understanding of the music.

The sources

I have included two copies of BWV 1011 as appendices to this article:

Appendix 1

In this manuscript every note intended to be played on the top string, and therefore written one note higher, is marked with blue, sadly spoiling the beauty of Anna Magdalena Bach's handwriting.

Appendix 2

This is a 'naked' score - without bowings, fingerings, or dynamics - published by Shin-Ichiro's Music Library, 2013. In this score I have highlighted in four colors all the instances where Bach does not transpose

notes from G3 and up by one whole step, meaning that they are to be played on the D-string instead of the top string.

From these quite numerous spots we can – as mentioned – find interesting hints for our interpretation and for the intentions behind Bach's transposing into discordata notation.

I have boldly tried to order all these spots into four categories. I have marked these spots with four different colors, thereby categorizing the type of learning we might acquire from the score. Others might interpret them differently and consequently find other conclusions; nevertheless, I will do my best to draw the right conclusions, and please forgive me if I didn't.

The videos

Musical explaining is often much easier done on video than on paper. I have recorded these videos with my cello to make my points of views on Bach fingerings in general and the four colors/categories clearer to understand.

Video 1: A visual explanation on how the discordata writing is done, and how we can deduce fingerings from this.

Video 2: This is the only known discordata writing in Bach's production. Why discordata? Maybe because of the development in Bach's writing for the solo cello.

Video 3: The impact of bowings and fingerings, and the specific fingering conditions for the cello.

Video 4: Explaining with examples the different types of information that can be deduced from the discordata writing, ordered in categories/colors.

Video 5: Do we have to follow Bach's fingerings? Discussing how we might handle "The Truth" in musical performing.

The videos can be found on YouTube

Link to video 1: <https://youtu.be/HuGJEqBo0Es>

Link to video 2: <https://youtu.be/5PgCILxFEfg>

Link to video 3: <https://youtu.be/NA8LhXjkN8>

Link to video 4: <https://youtu.be/xdVYKgndPDg>

Link to video 5: <https://youtu.be/wDqyvNppcVQ>

Background

In the middle of the 20th century, there was a common – and a little pretentious – saying that the six Bach cello suites equaled the Old Testament for cellists, and the five Beethoven sonatas equaled the New Testament. For many good reasons this saying is gone, but the cello suites remain arguably the most important oeuvre for cellists. Every cellist will play, and if possible, record them. If a cellist ever makes a second recording of anything, it will most probably be the Bach cello suites.

When working with Bach's cello suites – being unaccompanied and having relatively few notes per minute – the music feels close to “sacred”. Every interpretation is thought through with extreme care for details; any single note in the score is worth every possible effort, talent, and insight. Even small changes in style, bowings and fingerings have a great impact on the performance, firstly because of the sheer importance of the music, and secondly because every interpretation is as exposed as it can ever get. This is the reason for analyzing the possible traces of Bach's ideas on cello fingerings.

Although we find no written fingerings whatsoever in the sources for the cello suites, it is still possible to deduce some of Bach's ideas out of the scores. For instance, Bach carefully respected fourth position – fourth finger on the top string – as the upper limit for his cellists.

The fourth position is indeed a modest limit, compared to later writing for cello. Today's cellists regret that Bach did not use a wider range of the cello, as a few composers in Italy and possibly France did by then. Since Bach probably did not master the cello himself, the blame must be laid on the cellists that Bach worked with, and the general tradition for cello playing in his time. For instance, the A4, the first harmonic on a normally tuned top string is one of the simplest notes to play on the cello, but Bach did not even make use of this.

This is established knowledge on Bach's ideas on cello fingerings.

We also know that the cellists in Bach's time and place probably did not use thumb position. Generally, all Bach's cello music is played in the neck position and without use of the left thumb on the fingerboard.

I write “generally” because there are two passages where nearly every cellist today makes use of the left thumb on the fingerboard: in the prelude of Third Suite, bars 47-53, and the start of Bourrée 2 in the Fourth Suite. (Other spots too are often easier performed in thumb position.)

These spots – and some other difficult passages specifically in fourth suite – have been taken as an indication for that the cello suites were not originally written for cello, but for a smaller instrument, for instance the Viola da Spalla – a viola-like instrument hanging from the shoulder like a guitar – or the Viola Pomposa, a large five-string viola, held under the chin. These instruments, having shorter string lengths, could be played with more options for larger stretches and more violin-like fingerings.

(It goes without saying that the 6th suite cannot be played on a four-string cello without frequently using the left thumb, as this was never Bach's intention that it should be performed on a cello.)

I am not going to comment much on the speculations on that the cello suites are meant for Viola da Spalla, apart from pointing out four facts:

The first reason for not doubting that the cello is the intended instrument for these suites is that three out of four “first generation” copyists of Bach's handwriting on the front page of their manuscript clearly write that the suites are written for Violoncello Solo.

The second reason is: why did Bach to our knowledge never score for Viola de Spalla, like he did for the Violoncello piccolo and other rare instruments?

The third reason for not doubting that the cello is the intended instrument for the suites is that Bach's knowledge of the cello was not on the same level as his understanding of the violin. Therefore, we should accept some clear mistakes, in example the two or three ones in BWV 1011 that I have colored red in appendix 2, and not take those few mistakes as indications for that the suites are not written for cello. Additionally, this can help us to identify the lower limit of Bach's time to consider very specific details of cello playing.

The fourth: The Kellner manuscript admittedly writes "viola de Basso" on the front page, whatever this might mean. One might well suggest that this could mean Viola da Spalla. But I strongly believe that the reason for this is that Kellner was thinking of sixth suite in the collection - clearly written for Violoncello Piccolo - when writing Viola da basso, and not Violoncello Solo on his front page. Bach had both a cello and a Violoncello Piccolo in his house, but no Viola de Spalla.

We might also take into consideration that Bach, when testing his suites on his own cello, had very large hands. His hands were able to stretch an octave and a fifth on the given keyboard instruments. This is based on what is believed to be the skeleton of Bach, [3]

So, in my opinion it is a very doubtful conclusion that the da Spalla or Viola Pomposa is the original instrument for the cello suites, especially for based on Bach's miscalculating the possibilities in stretching. Yes, the suites are not easy to play throughout, but the violin solo works, the Sonatas and Partitas, are possibly even more difficult to perform, but still clearly for the violin.

Anyway, the recordings of the cello suites on Viola da Spalla sounds wonderful. Just like the transcriptions into the Viola da Gamba. And so do transcriptions into other instruments. Bach did a lot of transcribing himself and would probably have approved these too.

But the original instrument for the first five suites is in my opinion written for the cello, and BWV 1012 is for Violoncello piccolo.

Bach and the Cello

Bach's use of the cello is vast and widespread. Since the cello carried the continuo bassline throughout his music, one might consider the cello as one of the most used instruments in his toolbox. But – apart from the cello suites – he nearly consistently neglects the cello as a solo instrument. There are no sonatas, no concerti, and generally no exposed solo cello parts in his orchestral writing besides the Violoncello Piccolo arias in the cantatas.

In German Baroque music, the cello was not generally considered a solo instrument, whereas in Italy in the first half of the 18th century the exploration of the soloistic potential of the cello was reflected in wonderful sonatas and concerti. When Bach wrote the suites the technical development of the players both in France and Italy was really advancing. In France a new development in cello fingerings was explained in 1741 by Michel Corrette (1707-1795). In chapter 14 of one of the very first treatises for the cello "Méthode pour apprendre le violoncelle" op. 24., Corrette suggests the pattern of the left-hand fingering that we use today: the fingers lie over four chromatic notes on the string, covering a minor third. This is complemented with stretches - mainly between the first and second finger - and by frequent changes of positions. We can name this the "chromatic" fingering pattern. Before this technique was suggested it is believed that the normal pattern for cello fingerings were close to the violin pattern, the "diatonic" pattern.

Another revolutionary option in cello fingering that is described in Corrette's treatise is the thumb positions. With this in mind: what was Bach's inspiration for writing for solo cello? The cellists he had at hand in Weimar, Cöthen and Leipzig might not have been very advanced players. Nevertheless, Bach wrote some of the greatest music for cello in Cöthen. The big question is: Why?

Solo repertoire for the cello was as mentioned more or less unseen in Germany at the time, and until 1740 in France. In Italy, however, Giovanni Gabrieli (1557- 1612) wrote for the solo cello, and Antonio Vandinì (1691-1778) in his cello sonatas already from 1717 moved into much higher positions than the fourth. Josef Marie Dall'Abaco (1710-1805) only a little later wrote shorter, all-solo pieces for the instrument using high positions as well.

But did Bach know about that? Possibly not, and even if he did, the initiative of writing large-scale works for all-solo cello was amazingly daring. [\[4\]](#)

One might pose the theory that the cello suites display Bach's rare instrumental curiosity, as an investigation of an instrument Bach didn't master himself. [\[5\]](#)

We do not have any idea of where and by whom the suites were performed in Bach's lifetime.

Bach's general interest in understanding the instruments he composed for were on a different scale than most other composers of his time. An important aspect in Bach's professional life was the many jobs as organ-inspector, proving how highly respected he was in this field. [\[6\]](#)

So, we do not really know what made Bach write the six cello suites, if not out of instrumental curiosity. A reason for this might be that the cello did find its present form somewhat later than the violin.

Anyway, none of the three cellists in Cöthen were probably grand solo cello players in need of new repertoire; at this time and place the cello was not expected to perform solo, and indeed not without accompaniment.

My suggestion is Bach's inspiration for composing the six cello suites at least partly came from his general instrumental interest. I find a reason for that in the development within the six suites.

The development within the suites

As mentioned, there is an obvious process of development taking place in the six suites. Not being a cellist himself, Bach seems to investigate the instrument throughout the suites with close to scientific curiosity, and he clearly gets more and more fascinated by the instrument.

Development in duration: in most complete recordings each suite is longer than the previous: the first suite is around 16 minutes, the second suite is around 18, the third is 21, the fourth is 22, the fifth is 23, ending with number six, which in most recordings takes around 28 minutes.

They still all follow the same pattern with six movements: Prelude, Allemande, Courante, Sarabande, the fifth movement is either a Minuet, Bourrée or Gavotte, the sixth is always a Gigue.

The cello suites get subsequently longer and more elaborate; they increasingly include more double stops and counterpoint and get more and more demanding to play. In the first suite Bach's writing is at a technically modest starting point with only 24 double stops compared to 229 in the sixth suite. In the first minuet of the second suite, we find the first two-part writing, in the third suite several new features like bariolage and bordone are used. See video 2, <https://youtu.be/5PgCILxFEfg>

In the first three suites Bach investigates the obvious features of the cello.

The next three suites are considerably more difficult to play; they are very different from each other and adventurous in style and writing.

Suite number four marks a sharp turn: in this suite Bach investigates the cello's velocity, each movement is relatively quick and virtuosic, the prelude starts with an athletic two-octave jump, the heavy beat in the Sarabande is not on the usual second beat but the second bar - everything passes quickly in this suite. On top of the suite, it's written in an uncomfortable key, E-flat major, involving a lot of stretches and uneasy scale work.

In the fifth suite Bach searches for a darker sound since the a-string is tuned down to g, allowing the upper two open strings to sound more like a gamba. A gamba is principally tuned in fourths, not in fifths like the cello. I suppose that the sonic parallel to the French Viola da Gamba is part of the picture, why this suite stands out clearly in French style, whilst the other five suites are in Italian style.

The sound of the whole cello changes a lot with this discordata tuning; it is darker, more sincere and adds a new type of resonance. The pressure from the top string on the deck of the cello is reduced considerably; a normal a-string puts around 17-18 kg of pressure on the deck of a modern cello and tuning down the top string brings this pressure down by several kilos.

Although the development of cello technique in Italy and partly in France was rapid from 1720 and onwards, the great string virtuosi in the tenor and bass register for German composers like Bach and Telemann were still Viola da Gamba players/composers. The superstars in the tenor and bass register were musicians like Forquerais, d'Hervelois and Marin Marais. [7] Telemann accordingly wrote his 12 Fantasias (TWV 40:26-37) for solo Viola da Gamba and not for the cello.

No cellists in this period enjoyed anything like the reputation of the French gamba players, not even in Italy, and certainly not in Germany.

When Bach needed a large-scale obligato solo in tenor or bass register he too turned to the gamba. The most important moments in the Saint Matthew Passion (BWV 244) "Komm, süßes Kreuz" and in the Saint John Passion (BWV 245) "Es ist vollbracht" – are written for Viola da Gamba, and not for cello. For solemn and mourning texts Bach often writes for Viola da Gamba alongside other soft-sounding instruments such as flutes and oboe d'amores. For instance, in the "Trauer Ode" to Electress of Saxony Christine Eberhardine (BWV 198) Bach uses two Viola da Gambas.

The solemn and serious key of c-minor adds to the specific character of the fifth suite. Only this suite has three accidentals, three flats, forming the number of the Holy Trinity.

Bach's obsession with numbers remains a fascinating field when trying to understand his writing on a deeper level. One of many dazzling examples is that Das Wohltemperierte Klavier (BWV 846-893) needs exactly three bars to have 2138 bars. The number 2138 forms Bach's name, number 2 for B, the number 1 for A, 3 for C and 8 for H. BACH. [8] With three bars missing Bach underlines missing that the music is written to honor God symbolizing The holy Trinity, and not himself", ending this massive oeuvre with a "Soli Deo Gloria".

In the cello suites, especially in the fifth Sarabande, one might suspect that another secret arithmetic riddle can be the basis for the beauty and inner harmony of this iconic simple movement. We just didn't find it yet.

In suite number six Bach goes the opposite way: he now needs to explore how bright and festive a cello can sound. Glorious D-major is the key, and the additional e-string brightens up the whole tessitura and expands the range and virtuosic possibilities. Even on a normal cello you might feel like in heaven if it was not for the immense technical challenges we meet.[9]

When performing suite number five it makes sense to identify with the spirit and sound of the Saint Matthew Passion. Performing number six can benefit from associations to the Christmas Oratorium.

We don't find such development within Bach's solo violin music, [10] or in the suites for clavicembalo. Young Bach was an expert violinist, concertmaster in Weimar from 1714 till 1717, and his playing was said to be strong and skillful, if not utterly refined. His writing in the music for solo violin is extremely advanced, always possible but never easy to execute.

The Weimar violinist and composer Paul von Westhoff (1656-1705) paved the road for Bach's solo sonatas and partitas with his first collection of dance-movements (1682) and a second one with six partitas (1696). These are advanced writings, for which purpose Westhoff created fancy multi-clef and eight-staff notations, to facilitate reading of the complicated music, and possibly to clarify the elements of counterpoint too.

We know a lot about when, where and by whom the violin solo works performed. But in contrast, we know nothing like this, when it comes to the cello suites.

So, Bach knew the violin well, but possibly quite little about the cello when he started composing the cello suites.

The Bowings

One of the most important changes brought about by more historically informed interpretations after 1960-70 were the bowings. The original bowings can definitely bring the performer closer to Bach's ideas of phrasing, tempi, and dynamics.

Since Bach's manuscript (or manuscripts) of the cello suites have not survived, scientists as well as musicians have made a huge effort to get as close as possible to Bach's bowings.

This is for a reason: the bowings obviously meant a whole lot to Bach. If we look at the autographs of the solo sonatas and partitas for violin, they display wonderfully clear and consequently written bowings. Bach, for instance, writes the same bowing for every version of the theme, even in the longest fugue.

If we want to perform with Bach's ideas of phrasing, and to make his music speak as closely as possible to his phrasings and voice: follow his bowings.

The Dynamics

In contrast to the bowings, Bach generally told us nearly nothing about the desired dynamics in the cello suites, nor in the solo works for violin. (we only find a few echo effects marked) Dynamics are obviously a very important feature in any interpretation, and still it was seemingly left to the musician. Or – more likely – there was in Bach's days a lingo a generally known performance practice for the dynamics, probably closely connected to the tessitura in the score.

And now to the fingerings

When we prepare a Bach cello suite, deciding on fingerings is at least as important as the bowings.

Concerning the bowings, we know close to everything of what Bach wanted.

Concerning the fingerings, we only have the conclusions we can draw from the discordata writing in BWV 1011.

The specific conditions of fingerings on the cello.

String lengths, tuning and fingerings. How do they interact?

For playing demanding cello music the fingerings are, as mentioned, an extremely important feature.

When it comes to the cello suites, any version of any movement: they all need planning of the fingerings.

And - not surprisingly - the longer and more elaborated the suites get, the more one needs to plan fingerings.

But there are no fingerings marked in the manuscripts at all. How did they manage?

Comparison between fingering conditions on violin, cello, gamba, and lute/guitar.

Because of the much shorter string length, the natural fingering pattern on the violin contains BOTH whole notes and half notes. You could say that the left hand of a violinist is born diatonic, while the left hand of a cellist is born chromatic.

For instance, a B-flat major scale on a violin can be played without stretching, or changing position, even without the help of open strings. It “lies in the hand”.

The cello parallel to the violin B-flat scale will be E-flat major scale [11], but because of the larger string length, the cellist will have to include two stretches and two changes of position, even with maximum usage of open strings. See video 3, <https://youtu.be/NA8LhXjK8>

Consequently, planning of fingerings on the cello are of highest importance.

On the gamba and the lute, the long-string-challenge is solved by tuning in fourths and not fifths like the violin and the cello. The gamba and the guitar/ lute have string lengths similar or shorter than the cello, but since they are tuned in fourths the player can cover any scale in two octaves without changing position. So, the fingerings on the cello need to be planned to a much greater extent than on a violin or a guitar/lute. This is by the way the reason that the cello is not an obvious instrument for solo improvising. In folk music, jazz, and pop music the cello is very often present, but is rarely heard improvising.

Technical aspects in the choice of fingerings

Egality

The four strings on the cello sound different. If you want to sustain a specific color, look for options of staying on one string.

In historical informed string playing this option is much less important than later in history: generally spoken the rhetorical aspects in phrasings are more highly valued than the later increasingly more “singing” qualities. In Historical Informed Practice (HIP) the music should speak, and not necessarily sing throughout. Consequently, the phrasings are shorter, and the tempi often quicker.

Since the lines here are shorter the change of sound from one string to another does not disturb much.

Additionally, the more open sound – coming from open strings and low positions – is clearly preferred to the later style of keeping the color in a phrase, achieved by staying on the same string longer and changing positions instead of strings.

An important conclusion of this article is that Bach had a more complex attitude to the rule of “lowest possible positions and maximum use of open strings.

Facility/practicality of fingerings

Planning good fingerings in any solo-cello part will reduce unnecessary changes of positions, prevent awkward string crossings, and save one from ending up in a position where you cannot get any further. For instance, even an experienced cellist will – playing *prima vista*, with no written fingering - get trapped every now and then (for instance even in the non-flashy continuo part in the E-major flute sonata. BWV 1035.)

Musical aspects for fingerings, color and legato

One can theoretically create the same note from A3 and up on a cello, on all four strings. On each string you will hear four very different colors for the same note. In post-baroque string playing this fact is an important artistic option, taken into consideration not only by players, but also by composers. As mentioned, this feature is left unused to a very large extent in modern baroque playing. But - as you will see from the green and blue markings in Appendix 2 – Bach took advantage of more subtle coloring of the phrases:

Getting the sound darker in choosing a lower string,

Or preferring a stopped note to an open string. (Vibrato involved?)

Or acquiring a better legato by staying on one string, compared to changing sound with a new string.

These effects all depend on the fingerings.

Volume:

Generally, the volume is stronger on the highest of the strings. A larger culmination volume-wise will most often be done on the top string.

Getting there and creating the wanted crescendo needs a clever fingering.

Character :

The blend of overtones is indeed different on all the four strings. If we discard the aspects of sheer volume, we can choose between at least two “actors” for a specific phrase. Check the first note in the magic Sarabande (see Video 1, <https://youtu.be/HuGJEgBo0Es>)

and the corresponding note in the “green” section of my comments.

Embellishments:

Because embellishment involves more notes than the ones written in the manuscript, we obviously must plan the fingerings. We cannot change position in the middle of an embellishment, so find a fingering that will make this possible when playing, even if you don’t always play it.

A short history of cello fingerings

Around 1730 -1760 the cello underwent an extremely important development, not in the construction or strings, not in bows used, but in the way it was fingered.

The string length of a cello became standardized somewhat later than violin. Probably because of this, the original fingering pattern was derived from the violin, the above-mentioned diatonic pattern, which include a lot of stretching.

In 1752 Johann Joachim Quantz stated that “Solo playing on the cello is not easy. Those who wish to distinguish themselves in this manner must be provided by nature with fingers that are long and have strong tendons, permitting an extended stretch.”

The use of the diatonic fingering pattern for cello is difficult to understand today; the very frequent stretching is too demanding, and for this reason Corrette suggested the pattern of chromatic fingerings for the cello, where the hand will only cover a third, and not a fourth.

Michel Corrette, in his treatise of 1741, suggested the new principle of half note steps between the left-hand fingers with the occasional stretch only between the first and second finger. This is how cellists play today in the neck positions. It seems logical that the principles of fingering the cello had to change when the playing got more exposed and technically demanding.

The big question is: Where was Bach in this? Did he, nearly twenty years before Corrette’s treatise, know that the principle of cello fingerings had to change from diatonic into chromatic? Not playing the cello himself, he worked with cellists on daily basis and probably witnessed a lot of fingerings that worked, and a lot that did not work.

Which fingerings Bach’s cellist did use for the suites and the rest of his music is unclear. Analyzing the writing in the suites – not only suite number five - can inform us about this.

It would be impossible, for instance, to perform the 4th suite with diatonic fingerings, although this would mean far fewer changes of position. It would however be extremely uncomfortable for any cellist’s left hand, with the constant stretching leading to either horrible tensions or bad intonation. Or more likely both.

With chromatic fingerings on the other hand, it is certainly possible to give a fine reading of suite number four, but only with a lot of changes of positions, and with clever fingerings written into the score. Because of this - and many other challenging passages in mind - I suggest that Bach had the chromatic fingering pattern in mind when he wrote the cello suites.

The link between technical and musical developments.

The development of fingerings in cello playing is an overlooked but important part of music history, since progress in fingering have given new possibilities and inspiration to composers. So, what will a composer need to understand about the left hand when writing for cello? This is where cellists can get to play an important part in music history, either by cooperating with composers or by composing themselves.

Beethoven got to know about fingerings, bowings, and the character of advanced cello writing from Jean-Pierre Duport (1741-1818) in Berlin, and star-cellist Bernhard Romberg (1767-1841) influenced Beethoven immensely with his cello playing, although they obviously disagreed about the direction music should take. One of the biggest scandals in the history of the cello is that Romberg declined Beethoven's plan of writing a cello concerto for him. He preferred to play and promote his own compositions. And because of this, the cello Beethoven Cello Concerto did not happen. [\[12\]](#)

In the Esterhazy court orchestra, Haydn had a great first cellist, Antonin Kraft (1749-1820). From Kraft's own compositions you can tell that he was a truly great player, and Haydn consequently wrote six concertos for him, of which unfortunately only 2 remain. Both concertos, the one in D and the one in C major, are among the top 20 most frequently performed cello works.

Why didn't Mozart write a single solo piece for the cello, having such a great connection to Haydn?

Probably because there were no cello soloists around him to inspire him or commission a concerto or sonata from him. Mozart probably didn't need cellistic instruction for his general genius to write a cello concerto. He just didn't. [\[13\]](#)

So, no very little important cello music is written without contact to – or the strong influence from – a fine cellist, or with consulting previously written cello music. APART FROM BACH'S SOLO SUITES. The reason that this music became so wonderfully suited for the cello is Bach's amazing ability to combine three factors: His artistic vision, his talent for understanding the technical aspects of an instrument, and his adventurous musical spirit.

Part Two

Analyzing Bach's discordata writing

The material in BWV 1011 is admittedly limited, and the conclusions drawn from only six out of thousands of pages from Bach's hand could be modest. It is very possible that I draw too far-reaching conclusions, but it is tempting to do so since the music is so important and the discordata writing so unique. As mentioned, this is the only manuscript where Bach "translates" the written pitches into discordata notation, and where we can acquire this specific insight.

Appendix 1

In the attached Anna Magdalena copy – the most trustworthy of the four first generation copies – I have marked with blue every note that is written in discordata, or grip notation; they are all written one whole step higher than the resulting sounding pitch.

Appendix 2

In the other attached score, I identify all the notes – from G3 and up – that are NOT written a note higher and therefore show us either an artistic interpretation of Bach's, (marked green) or his understanding of the technical conditions for cello fingerings (marked blue).

This is the specifically interesting stuff! This is the closest a cellist today can get **in having a lesson from Bach**, pointing out some musical likings and providing us with technical help with the fingerings.

Marked with Green:

These passages are the most interesting for our understanding of what was **musically** important to Bach. The green spots are solely artistic reasons for not using the top string from g and up.

These specific places display Bach's artistic thoughts, where he is looking for either:

A more covered sound, a darker sonority since the D string is in use instead of the top G string.
Or a better legato by not crossing strings and using fingerings with position changes instead.

It is with these examples that the simpler understanding of Historical Informed Performance fingerings – as many open strings as possible and as low positions as possible – are contradicted. And this from Bach himself.

Bach's somewhat cool notation - without dynamic markings, metronome numbers, accents, crescendi and diminuendi or words like *espressivo* or *con fuoco* - reflecting his time as a composer, leaves so much freedom to the players and singers, that any trace of "subjective and artistic instructions" are of the highest interest.

Marked with Blue:

These places reflect practical reasons for not using the top string from g and up, by understanding technical conditions for the left hand in cello playing. These indicate advanced and intelligent left-hand fingerings. They combine practical knowledge with artistic visions. Few composers throughout history have had this degree of knowledge in writing for cello that Bach had – even on an instrument he did not really play himself.

The fingerings that we deduce from the discordata writing in BWV 1011 are most often extremely well done, both innovative, practical, and cello-professionally thought out. It takes a lot to figure out practical and artistic discordata writing. The fact that none of the copyists corrected the few mistakes (the red spots) or tried to improve any of the impractical ones (the yellow spots) shows how far ahead Bach was to his copyists in practical conception. Not a note of Bach's discordata writing is deliberately changed in any of the copies.

Marked with Yellow:

Possible but impractical fingerings, for which I cannot find a real artistic or practical reason, even after trying hard.

These places might be a consequence of the composer's very busy life or mark a lower limit of his interest. [14] Conclusively, the yellow markings show us a moderation of Bach's technical insight. They do not add anything to the artistic standpoint that we might expect, favoring fewer string changes and more legato playing.

Marked with Red:

Who are we to try to identify a mistake from the hand of Bach? But nevertheless, there are a few places where his notation does not make sense, being either wrong, impossible, or much more difficult than an obvious alternative. There are in my opinion only three spots, and again copied faithfully into all the first-generation copies of Bach's manuscript.

Some of the most interesting examples - of every color - are shown in video 4
<https://youtu.be/xdVYKgndPDg>

THE GREEN MARKINGS

Prelude

Bar 27: The aforementioned ending of the introduction to the fugue: the top note of the triple stop is NOT written for the open top string. Most cellist – after having the trouble of tuning down the top string – enjoy and play the option of three open strings in the cord, the sound is open, very easy to play, and sounding really HIP.

But Bach himself chose to write this top g on the stopped D string. This prevents the open D string from resonating. What we hear is a pure octave and not a fifth ending the slow section, sounding more severe and bare. The next note, the first note in the fugue – the same sounding g – is now written for the open top string. This creates a new and more open sound - a new start and an identity on its own - for the big fugue to follow. Most cellist do the opposite: open top string for the ending of the slow section and stopped d string for the beginning of the fugue. [\[15\]](#) See video

Baroque vanguard cellist Anner Bylsma and a very few others play the two identical notes on the strings that Bach wanted.

Bar 46: all written on D string. This passage could just as well be played in first position going to the top string from fourth note, and not entering second position as written. Maybe Bach here instructs us to use a darker sound since – if we follow the tessitura dynamically – we are in a diminuendo?

Bar 83: This g can just as well be played on the open top string, but the bottom voice in the figure over bars 82 and 83 - e flat, f and g - sounds much better on the same string and preserves the color of that voice in the counterpointed writing.

Bars 167 and 170: Although the first sounding notes in these two bars are the same – sounding G - Bach writes first note in 167 on the D string and, in contrast, the first note of 170 on the top string! Since the top string sounds louder and more open, this detail will support the crescendo that everybody wants to play, to reach the culmination in bar 172 and following bars. This is for sure advanced writing, and detailed instruction.

See video 4

Bar 219: The triple stop: this is a mysterious spot. Only four bars from the vigorous and grand ending, Bach instructs us to play a triple stop which can only be done if we use the thumb for the upper note. As mentioned, the thumb was probably not in use for Bach's cellists, nor in Bach's understanding of the cello. Most cellists change this double stop by transposing the C an octave up, (printed in parenthesis in Appendix 2) thereby creating a grand widespread double stop that fits well into a large crescendo wanted for an impressing ending. So, we either change the fingerings in Bach's understanding of the cello, or transpose his music. A third option is to drop in tessitura and volume, playing this double stop on two strings only, arpeggio-like. [\[16\]](#) The coming forte after this will have a great effect when ending the largest of Bach's preludes for cello solo. This ending is not derived from the tessitura writing. This is just another attempt to gain inspiration and meaning from the left hand indications of Bach.

Allemande

Bar 27: The last two notes might have been easier to play on the top string. But Bach also here wants us to avoid changing strings and color.

Courante

Bar 1: The five marked eighth notes: just like the previous example, they are just as easy to play when staying in first position, but Bach avoids two changes of string with this notation and thereby gets a better legato. This is again proof that Bach would not choose the lowest possible position or favor the open strings.

Bar 8: Second to last note: although easier the g is not to be played on the open top string. Bach again doesn't want to break the line from f sharp to g by changing strings.

Bar 17 last quaver and bar 18, first quaver: Again, Bach prefers change position to a change of strings.

Sarabande

Very first note: this note was the initial reason for me to start this investigation. Being a sounding G Bach is perfectly free to choose between an open top string and a stopped D string.

Forming the start of one of Bach's most iconic movements, his choice for the first note is of highest interest. His bowing indicates a legato. An open top string will sound more "baroque" than when the same note is played on the stopped D string, but still Bach prefers the stopped D string, avoiding any change of color to this important start, and additionally creating a better legato than if we change strings.

Bar 18: With this fingering the interval between first and second note is performed over two strings, avoiding a very unpleasant tritonus glissando. The same interval in bar 3 however is written to be played on the top string only. Executed like this and with Bach's bowing, there is no way around a glissando. In my opinion this divergent writing of the same interval is a fingering mistake in bar 3.

Gavotte 1

Bar 16, notes 4, 5 and 6: Again, Bach prefers two changes of position to two changes of strings and colors.

Gavotte 2:

Upbeat to bar 1: Played on only one string the legato is better, and the bar is easier to play than if four out of six notes were played on the top string. But Bach makes us "pay" with a position change.

Bar 19: In contrast, this bar is easier to perform when changing strings. But Bach's version assures us a better legato. And instructs us likewise.

Gigue:

Bar 10 and 11: These a-flats could also be played on the top string (as b-flats), but the swift gigue tempo might make the string changes impractical. Anyway, when written for the D string a better legato is possible - avoiding two string changes - both technically and sound-wise.

Bar 21: last two notes and 22 first note: Bach prefers second position, for the same reasons.

Bar 25, first two notes: again, second position.

Bar 68 last note, and first note of 69: Second position sustains the color preferred rather than the equally practical - and more "baroque" sounding - top string.

THE BLUE MARKINGS

Prelude

Bars 84 to 87: Impossible to play if not played on two alternating strings. Bach's choice of strings reflects strong understanding in the relation between string length and hand size in playing the cello.
See video 3

Bar 89: second and third note. Here Bach wisely chooses the second string and not first, avoiding a large position change to the a flat.

Bar 168: first note: when written for the D string, third position, and not for the top string, likewise a very difficult position change is avoided

Allemande

Bar 12: third and second last notes, and bar 13, first two quavers: the g's and a-flats are wisely written for the D string, third position, avoiding changes of position.

Bar 13: first and second quaver are in third and second position, creating an even series of short ornament-like notes. No top string.

Bar 19: third- and second-last notes: written for the D string the trill can be sustained if wanted.

Bar 26: upbeat to third beat, Bach again prefers second position to the open top string, so that the descending line is kept on one string only.

Bar 28: the top g in the double stop is of course written for the D string, if the top string was preferred, the c and the g could not sound simultaneously.

Courante

Bar 14: third-last note: if this sounding a-flat was written for the top string, the cellist could very well stay in first position. But Bach's fingering better prepares for playing the subsequent double stops, creating a more homogenous sound as well for the descending line.

Sarabande

No blue markings

Gavotte 1

Bar 7 and 8: very cellistic choice of string for the lower notes, on D string, in a passage with big intervals. Performed on two alternating strings, numerous impossible changes of positions are avoided.

Bar 28, last half and 29, first half: likewise, smart fingering, in the same way as 8th and 9th bar.

Bar 31, fifth note: again, smartly avoiding awkward string crossing by using second position.

Gavotte 2

Bar 17: again, second position creates both better playability and more equal sound, compared to staying in first position.

Gigue

No blue markings

THE YELLOW MARKINGS

Prelude

Bar 23: first half: (also see Video 3) An obvious place to change Bach's choice of string for a more fluent and homogeneous sound is going to second position for the first half of the bar. When playing how Bach wrote it, the a (first finger on the top string) will stick out in sound and need four extra string changes.

Bar 32, last two notes: If played on the D-string and in 2nd position, a difficult string crossing is avoided, and this fingering can prepare the trill in the next bar.

Bar 106, last note and first note bar 107: In my opinion this would be better in second position, with no string crossing and a more homogenous sound.

Bar 116, note 4 and 5: If played on the D-string an awkward position change is avoided. (same problem/interval as in the Sarabande, bar 3)

Bar 127, third note: A stretch can be avoided if played on an open top string instead.

Bar 147, first note: Better on D-string, second position. Bach marks a slur here that sounds much better on the same string.

Allemande

Bar 11, second beat: If played on the D-string in second position, one can stretch the coming octave.

Bar 14, last beat: Two string changes in one beat changes the sound too much. Can better be played in second position.

Bar 17: last note, and bar 18, first note: A repeated g on two different strings is a little strange sounding.

Last bar second note g: Probably better on the D-string, in this case the string change can be avoided, and the dotted rhythm will be more easily executed.

Courante

No impractical fingerings

Sarabande and Gavotte 1

No impractical fingerings

Gavotte 2:

Bar 7, last two notes: If played on the D-string in second position, an awkward string change can be avoided, and the coming double stop in next bar will be a little easier.

Bar 12: The ninth note is a bit better on the open top string, making it easier to shift to second position, necessary for the last notes.

Gigue

Bars 31, 34 and 38: These might all be better on the D-string, avoiding quick string changes.

THE RED MARKINGS

Prelude

Bar 142: If the first note, the sounding g, is played on the D-string in third position, the first note can be sustained throughout the bar, just like bar 138 and 147. This must be a mistake.

Courante

Bar 20, fourth note, the double stop: Staying in first position and having the top note of the double stop on the open top string is much easier and better sounding, avoiding two rapid position changes. Being a minor thing this might be considered as impractical, yellow, rather than red.

Sarabande

Bar 3: The second note, sounding a flat, is better on the D string since any trace of a glissando in the tritone interval will hamper the performance. The interval is better off with Bach's second version of the same interval in bar 18. It is fair to believe that the difference in notation is unintended. I suggest the version in bar 18 is the correct one.

Epilogue

Others might interpret all the spots - the places where Bach is deviating from writing everything from G and up automatically one note higher - differently than I have done in this article. And my sorting those spots into the four categories and colors is arguably too square.

But I would prefer that this article supports new standpoints, rather than that other will agree with me in everything. I just hope that analyzing the discordata writing can give a path to getting closer to Bach.

Bach's son, the great composer Carl Philip Emmanuel Bach, is quoted in the first Bach biographer Johann Nicolaus Forkel's book from 1774, saying that his father's favorite instrument was the viola.

"In his youth and until the approach of old age, he played the violin cleanly and penetratingly, and thus kept the orchestra in better order than he could have done with the harpsichord," and he added: "He understood to

perfection the possibilities of all stringed instruments." My investigation in Bach's discordata writing definitely supports this statement.

The history in how we understand the cello suites is in short that the suites start from close to oblivion. Probably Bach had no specific cellist in mind for all the suites, and we know nothing about performances in his time. Later in history the suites got somewhat known as studies, after this again, they got performed in single movements as salon pieces with piano, after this the Casals rediscovery led to a renaissance, with performing of entire suites, in their own right.^[18]

The development of the fingerings in Bach 5th suite seems to be like this: first the players probably followed the notation of the manuscript faithfully – if we do not consider Kellner's normal-tuning-version.

In editions from the late 19th century, we find editions with parallel notation: one in normal and one in discordata tuning, of course with fingerings for normal tuning, and many more fingerings altogether. During the 20th century the versions for normal tuning became dominant, and with this came all the highly individualized (mostly emotionally romantic, but also intellectualized) editions. Starting around 1960 with historically informed understanding of baroque music, the preferred choice in performing the fifth suite began to change back to discordata again by the last decades of the century.

It would be interesting to try to compare the general development in style and technique to the printed fingerings of the cello suites throughout history. Being an eyewitness for the last 50 years I can testify that much has happened.

The understandings of Bach's cello suites are still developing vigorously - maybe now with a new historically informed individualism? Maybe because of its very abstract nature, Bach's music can keep its wonderful qualities in very different settings, transcriptions, and interpretations. Because of this, especially Bach's music is less dependent on "the truth" or established ways of performing.

This article should not lock any cellist into fixed fingerings or interpretations. It is only an attempt to get closer to Bach's world, understandings, and likings.

Morten Zeuthen

Footnotes:

¹ The first, written in Cöthen, "might not have been a calligraphic fair copy comparable to the one that transmits the violin solos. This in turn suggests that Bach did not have time to prepare a fair copy before leaving Cöthen, and never did get around doing it in Leipzig. Off and on, he probably made small additions and minor changes, as implied by secondary copies. Yet the fate of the autograph score remains completely uncertain. It was probably identical with the lost manuscript once in possession of Carl Philip Emanuel Bach." Christoph Wolff: *Bach's Musical Universe*. Norton, 2020.

² In suite number 6, bars 72-75 heavily exceed the fourth position that Bach respects throughout his cello writing. Even on a five-string instrument we must make use of the left thumb for fingering the 5th, 6th and 7th positions, when played on a Violoncello Piccolo. The 7th position Bach regarded as the last possible position on the violin. Thus, it might be concluded that suite 6 is meant for another instrument than violoncello piccolo, maybe the Viola Pomposa or the Viola da Spalla. Or maybe Bach wrote these bars trusting that future cellists at some point would find their way to higher positions, which was already happening in Naples in the 1720s-1730s.

[3](#) Andreas Otte: Johan Sebastian Bach's Remains - A Call for 3-DComputer Tomography Imaging" ARC Journal of Radiology and Medical Imaging. 2018

[4](#) And by the way contradicting his reputation of being conservative. The sons referred to him mockingly as "The Old Wig".

[5](#) Christoph Wolff: Bach's Musical Universe. Norton, 2020, page 86, describing Bach's "experimental laboratories" the organ and the harpsichord. "With apparently the same determination he treated the violin and the cello as study objects in musical independence.....with their different sizes, playing techniques, and timbre..."

[6](#) He might even have been part of the development of the fortepiano. Bach tested one of Gottfried Silberman's (1683–1753) fortepianos and gave detailed feedback, he liked the sound, but was skeptical about the playability. This led to important improvements. In 1747 he was invited to Frederick the Great's court in Prussia, where his son Carl Phillip Emanuel Bach was kapellmeister. Carl Phillip gave his father a nasty theme to improvise on, the theme that led to "The Musical Offering". On this occasion Bach played on an improved Silberman fortepiano, an instrument he approved. In this connection one might add Bach's overwhelmingly strong argument for the Andreas Werckmeister-tuning pattern, the Wohltemperiertes Clavier.

A parallel can be drawn to his interest in the traverse flute, a new instrument that he championed in important solo parts.

[7](#) But the times were changing after all, even for the French late baroque gamba. This becomes clear in the wonderful book by Hubert Le Blanc (1696-1760): "Défense de la basse de viole contre les enterprises du violon et les prétentions du violoncelle" (Defence for the Viola da Gamba against the Attacks of the violin and the intrusive cello).

[8](#) Ruth Tatlow: Bach's Numbers: "Compositional Proportions and Significance" Cambridge University Press, 2015

[9](#) Even on a five-string cello we still will have to blow the border and move into position 5, 6 and even 7!

[10](#) If we examine the parallel six works for solo violin in for instance Hilary Hahn's recording from 2017, the timings of the works are starting at 21,5 minutes, then 30, second sonata is around 25 min, second partita is 32, third sonata is 25,5 and last the third partita is only 19.

[11](#) The deepest string on the cello, C, is a fifth (and an octave) deeper than the deepest violin-string, G. Because of that the example cello scale E-flat corresponds with the violin's B-flat.

[12](#) Dimitry Markevitch: "Cello Story", Summy-Birchard Music, 1984

[13](#) The impact of how one single cellist can change a whole genre of composing becomes clear when we compare the huge pile of important cello music written for Mstislav Rostropovich to the close to no masterpieces written for Pablo Casals. Casals did not change the tuning in his performance of the 5th suite

In strong defense of Casals, however, we must remember that it was he that found the Bach suites in a shop in Barcelona at the age of 13. And he was probably the first cellist after the baroque period to perform entire suites, with a tremendous effect on the classical music scene.

[14](#) A famous example of where Bach obviously did not care that much is the different endings of the prelude: the lute version ends in c minor, while the cello version ends with a triumphant C major.

[15](#) Admittedly, I did this too on my award-winning Bach recording, Classico, **classcd 753-54**,

Morten Zeuthen, Royal Danish Academy of Music, Copenhagen
February 2022

Special thanks especially to Anna Dorothea Wolff, solo cellist Odense Symphony Orchestra, for artistic, cellistic and help with translation into English.

Literature:

Christoph Wolff: "The Learned Musician", and "Bach's Musical Universe"

Nikolaus Harnoncourt: The Musical Dialogue and Baroque Music Today

Cellofun.org

Per F. Broman: The Emperors New Clothes, STM 1994-95

Anner Bylsma: Bach, The Fencing Master, Reading aloud from the first three cello suites, Amsterdam

Dimitry Markevitch: Cello Story, Sunny-Birchard Music, 1984

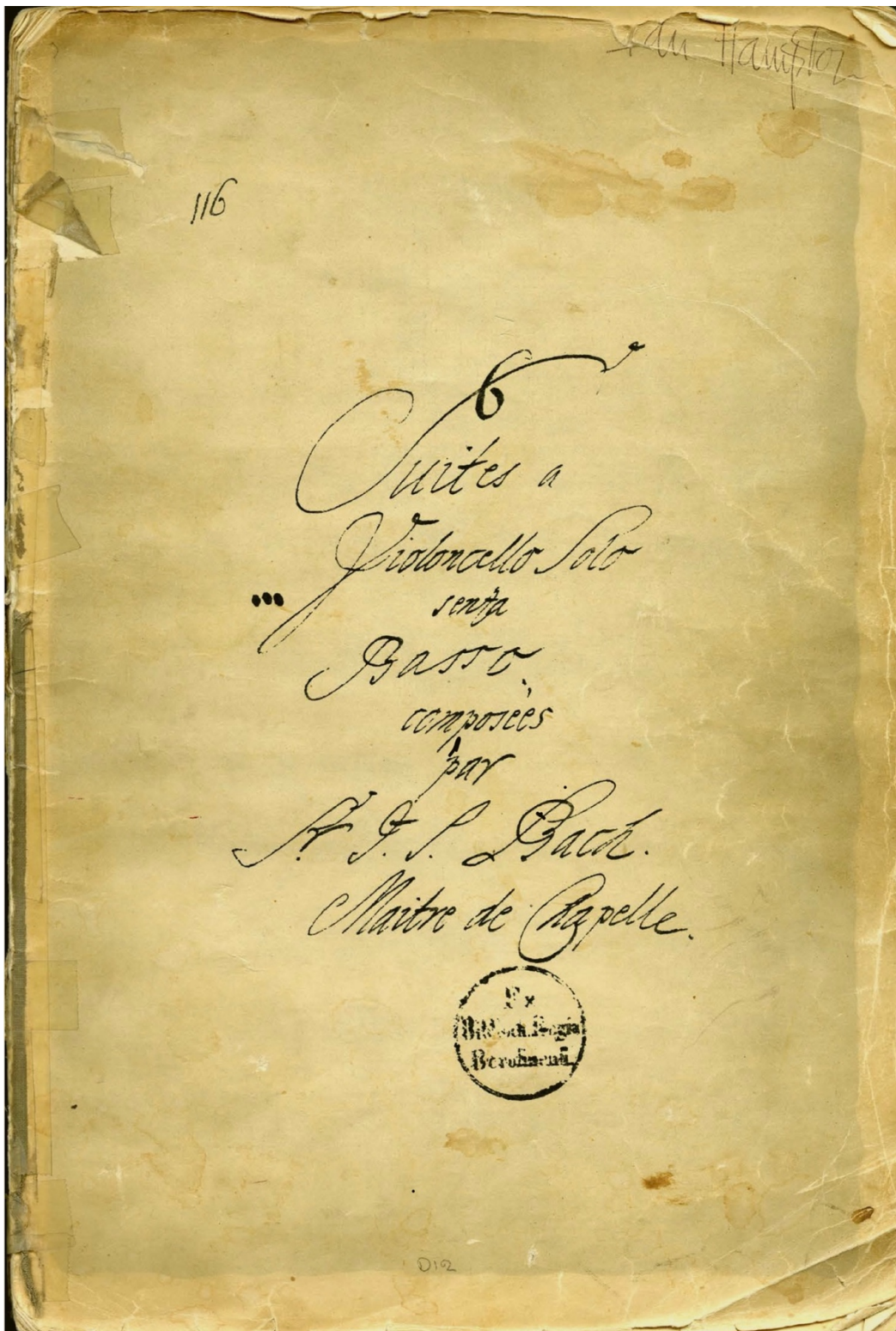
William Pleeth: Cello, MacDonald and co. Great Britain, 1984.

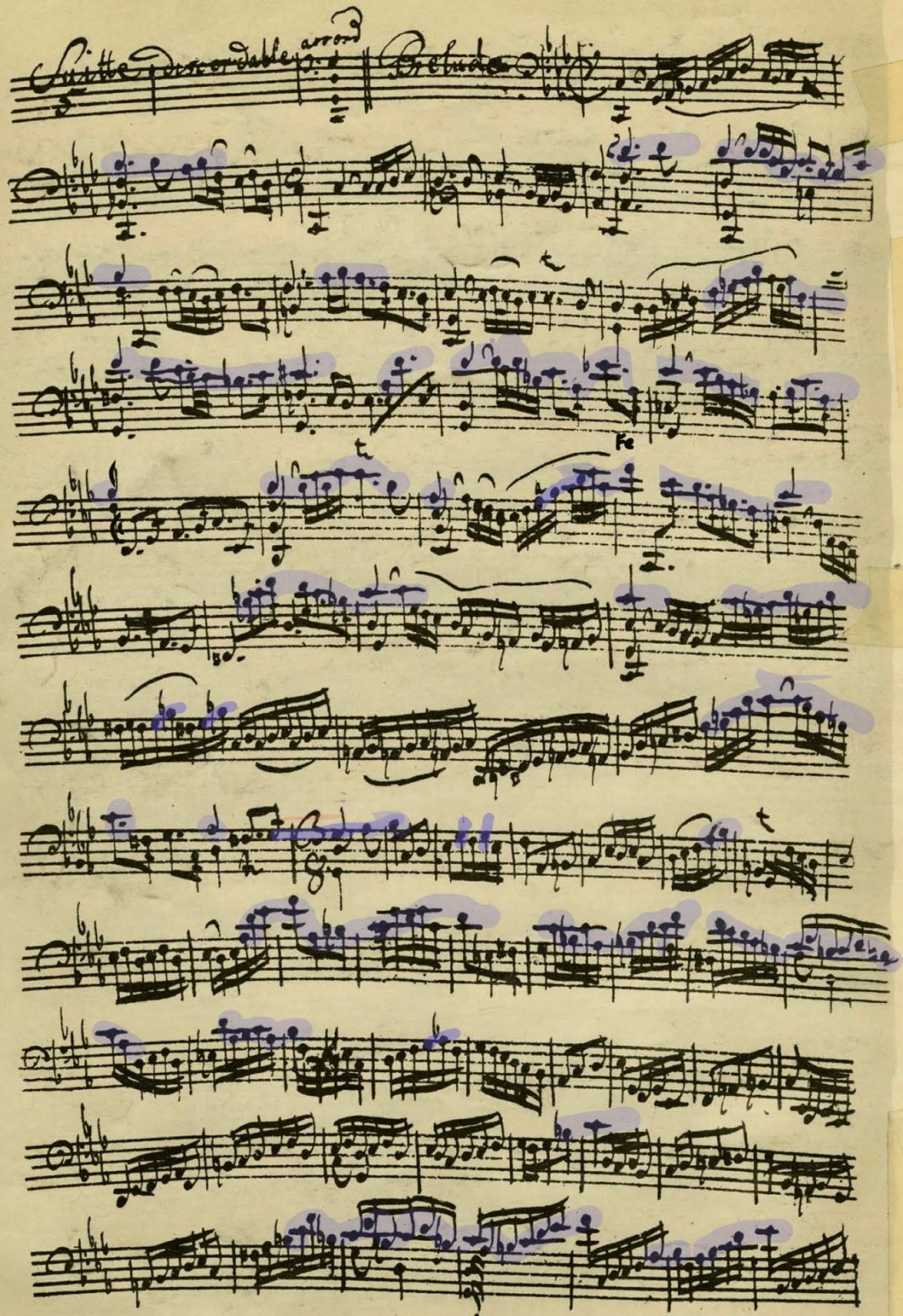
Karl Aage Rasmussen: "Jord og Himmel, Lyt." Gyldendal, 2014

Ruth Tatlow: Bach's Numbers: "Compositional Proportions and Significance" Cambridge University Press, 2015

Appendix 1

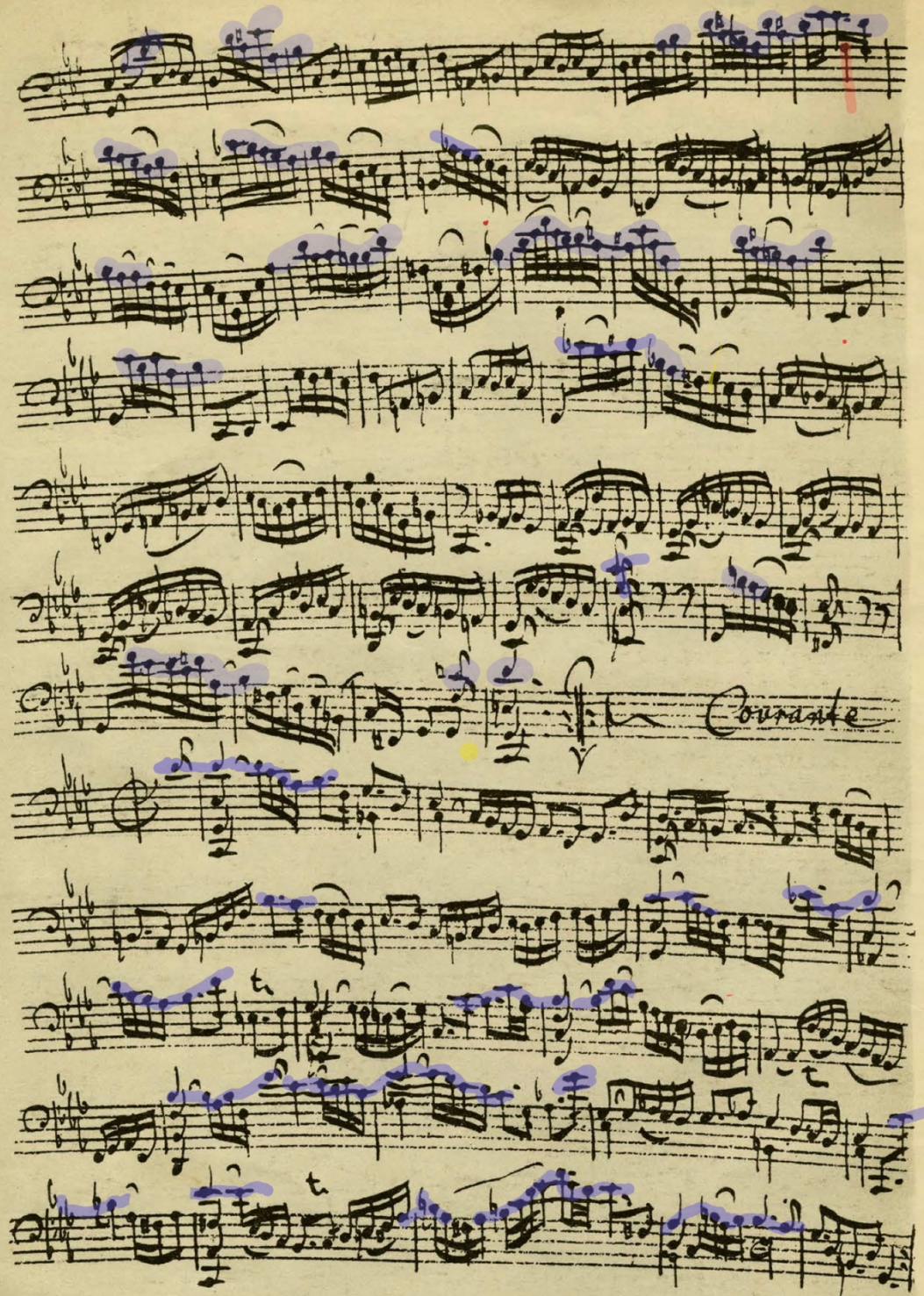
This is the manuscript of Anna Magdalena, and considered as the most trustworthy of the four first generation copies. The many notes that Bach instructs us to play the on the top string are marked with blue.

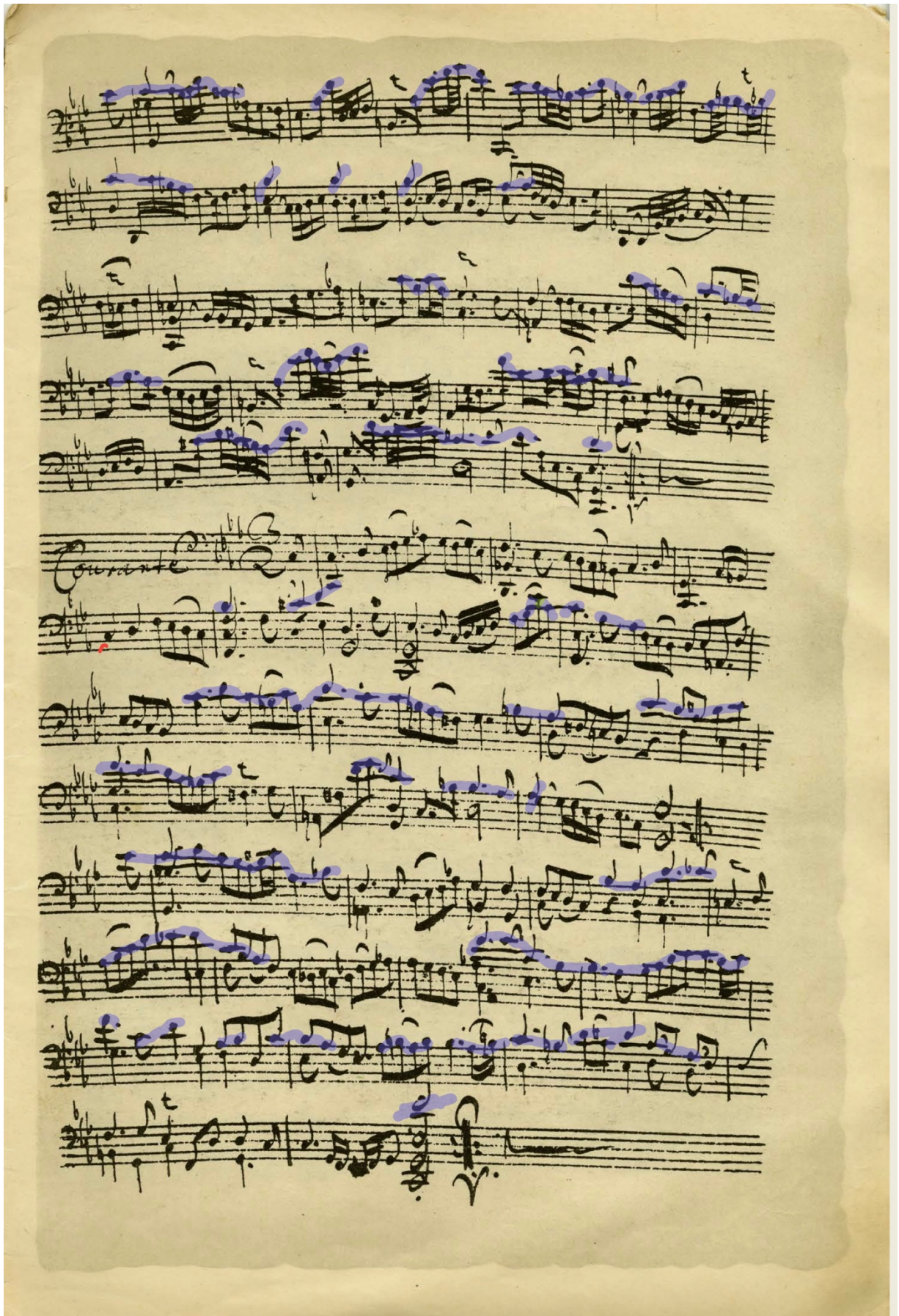


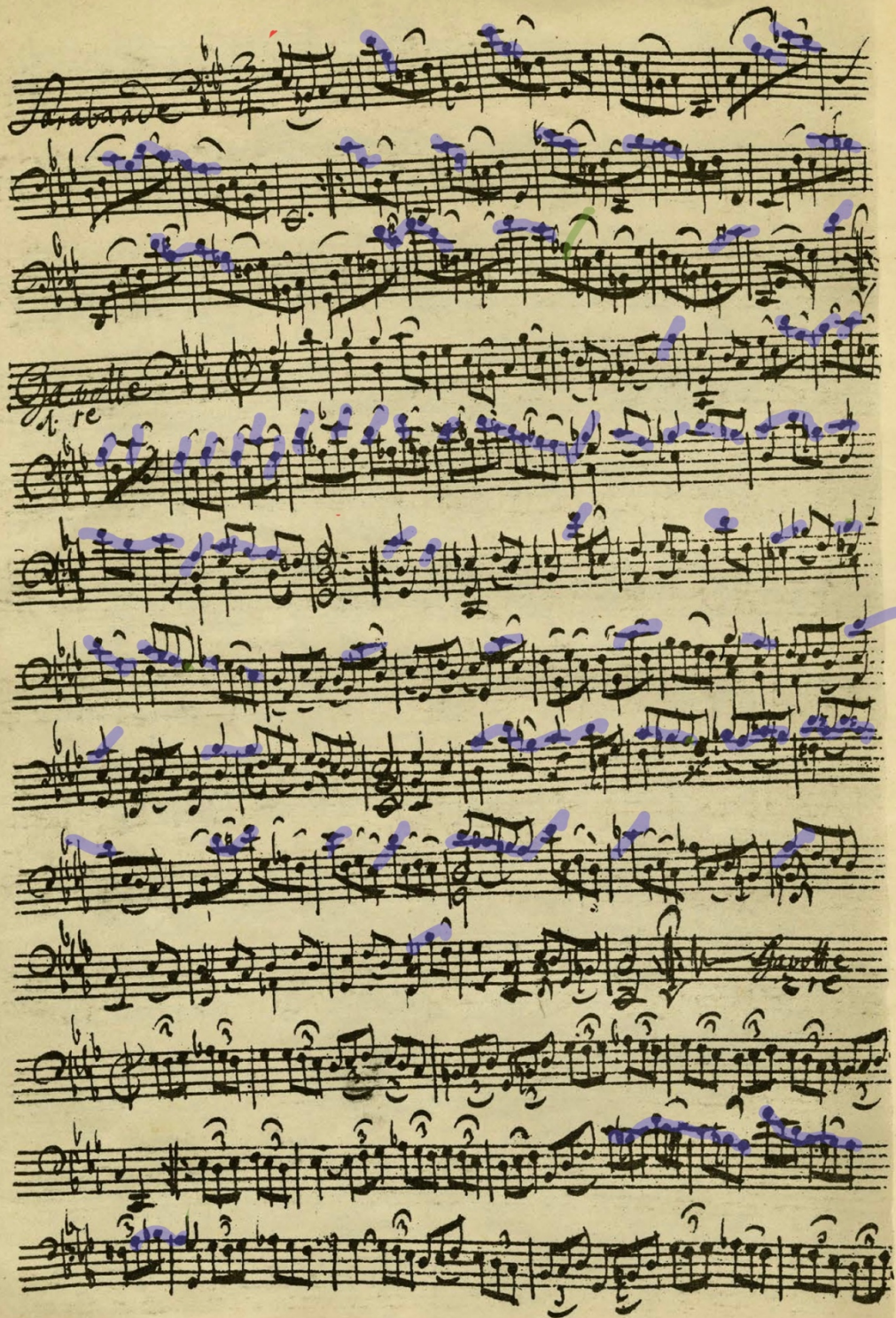


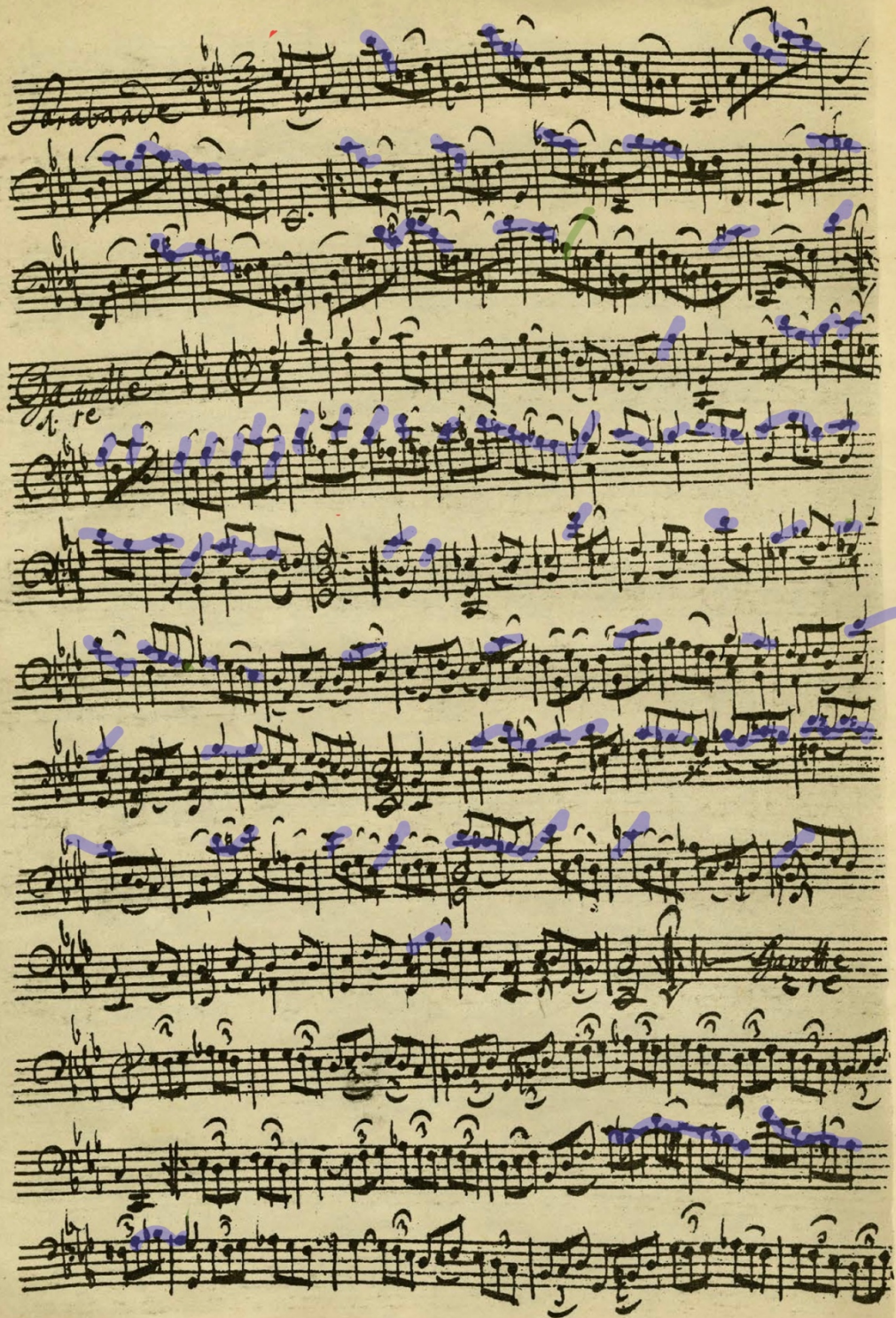
A handwritten musical score on aged, yellowed paper. The score consists of 14 staves of music, written in black ink. The notation includes various musical symbols such as notes, rests, and clefs. The paper shows signs of wear, including creases and discoloration. Several sections of the music are highlighted with purple ink, primarily focusing on the upper staves. The handwriting is fluid and characteristic of a composer's draft. In the bottom right corner, the word "voluta" is written in a cursive script.

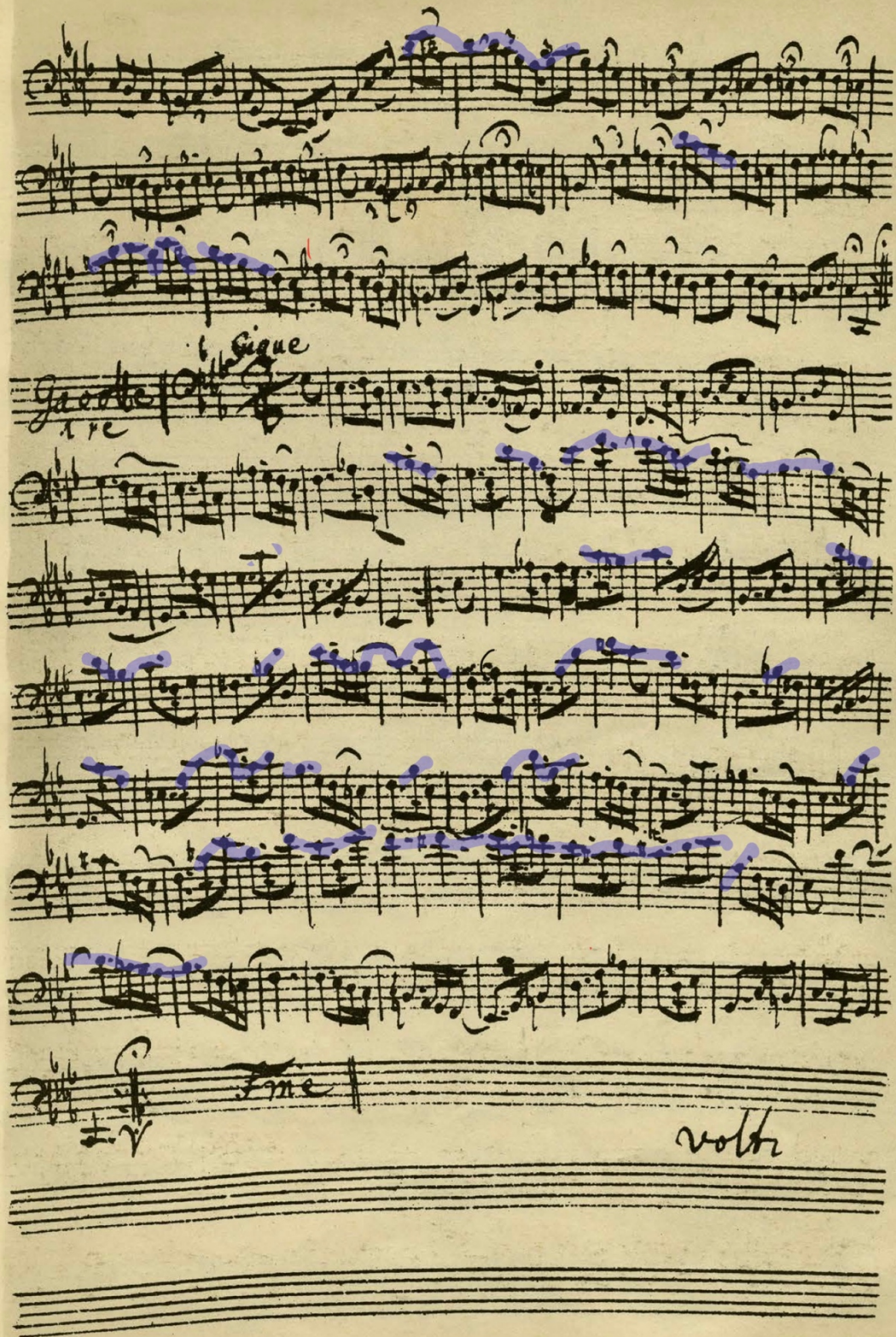
voluta











Appendix 2

In this score are marked spots of specific interest.

Marked with Green:

These passages are the most interesting for our understanding of what was **musically** important to Bach. The green spots are solely artistic reasons for not using the top string from g and up.

These specific places display Bach's artistic thoughts, where he is looking for either:

A more covered sound, a darker sonority since the D string is in use instead of the top G string.

Or a better legato by not crossing strings and using fingerings with position changes instead.

It is with these examples that the simpler understanding of Historical Informed Performance fingerings – as many open strings as possible and as low positions as possible – are contradicted. And this from Bach himself.

Bach's somewhat cool notation - without dynamic markings, metronome numbers, accents, crescendi and diminuendi or words like *espressivo* or *con fuoco* - reflecting his time as a composer, leaves so much freedom to the players and singers, that any trace of "subjective and artistic instructions" are of the highest interest.

Marked with Blue:

These places reflect practical reasons for not using the top string from g and up, by understanding technical conditions for the left hand in cello playing. These indicate advanced and intelligent left-hand fingerings.

They combine practical knowledge with artistic visions. Few composers throughout history have had this degree of knowledge in writing for cello that Bach had – even on an instrument he did not really play himself.

The fingerings that we deduce from the discordata writing in BWV 1011 are most often extremely well done, both innovative, practical, and cello-professionally thought out. It takes a lot to figure out practical and artistic discordata writing. The fact that none of the copyists corrected the few mistakes (the red spots) or tried to improve any of the impractical ones (the yellow spots) shows how far ahead Bach was to his copyists in practical conception. Not a note of Bach's discordata writing is deliberately changed in any of the copies.

Marked with Yellow:

Possible but impractical fingerings, for which I cannot find a real artistic or practical reason, even after trying hard.

These places might be a consequence of the composer's very busy life or mark a lower limit of his interest. [\[14\]](#) Conclusively, the yellow markings show us a moderation of Bach's technical insight. They do not add anything to the artistic standpoint that we might expect, favoring fewer string changes and more legato playing.

Marked with Red:

Who are we to try to identify a mistake from the hand of Bach? But nevertheless, there are a few places where his notation does not make sense, being either wrong, impossible, or much more difficult than an obvious alternative. There are in my opinion only three spots, and again copied faithfully into all the first-generation copies of Bach's manuscript.

Some of the most interesting examples - of every color - are shown in Video 4.

Suitle discordable accord *Prélude*

2

6

9

12

15

18

21

23/

26

32

tr

tr

tr

(les viol.)

37

38

44

50

56

62

68

74

80

86

92

98

104

Bariolage, parallel to 1st suite

compare to the better
fingering in 134

Volti Subito

38

110

116

121

126

132

138

144

150

156

161

166

The image displays a musical score for a bass clef instrument, spanning measures 110 to 166. The key signature is B-flat major (two flats). The score is written in a single system with ten staves. Various annotations are present: a yellow circle highlights a note in measure 116; a red circle highlights a note in measure 138, with an asterisk (*) below it; a yellow circle highlights a note in measure 144; a blue circle highlights a note in measure 166; and a green circle highlights a note in measure 166.

171

176

183

187

192

197

203

209

214

220

This musical score is written for a bass clef instrument in a key with two flats (B-flat and E-flat). It consists of ten staves of music, each containing five measures. The measures are numbered 171 through 220. The notation includes various rhythmic values such as eighth, sixteenth, and thirty-second notes, as well as rests. A green circle highlights a specific musical phrase in measure 214, which consists of a quarter note G2, an eighth note A2, and a sixteenth note B2. The score concludes with a double bar line and a repeat sign in measure 220.

40

Allemande

3

6

9

12

15

18

21

24

27

30

32 *tr.*

34 *compare to bar 18*

Courante

3 *tr.*

6

9 *tr.*

12

14 *tr.*

17

20 *tr.*

23 *tr.*

The musical score is written in bass clef with a key signature of two flats (B-flat and E-flat). It consists of ten staves of music. The first staff (measures 32-33) has a green circle around a measure. The second staff (measures 34-35) has a yellow circle around a measure. The third staff (measures 36-37) is labeled 'Courante' and has a green circle around a measure. The fourth staff (measures 38-39) has a green circle around a measure. The fifth staff (measures 40-41) has a green circle around a measure. The sixth staff (measures 42-43) has a green circle around a measure. The seventh staff (measures 44-45) has a green circle around a measure. The eighth staff (measures 46-47) has a green circle around a measure. The ninth staff (measures 48-49) has a green circle around a measure. The tenth staff (measures 50-51) has a green circle around a measure. The score includes various musical notations such as notes, rests, and trills.

42



impractical, compare to bar 18



better fingering



24

28

32

Gavotte
2de
(en Rondeaux)

3

6

9

12

15

17/

20

Gavotte Da
1re Capo

Detailed description: This is a musical score for a piece titled 'Gavotte 2de (en Rondeaux)'. The score is written in bass clef with a key signature of three flats (B-flat, E-flat, A-flat) and a common time signature (C). It consists of ten staves of music. The first three staves are numbered 24, 28, and 32. The fourth staff is the title line. The remaining staves are numbered 3, 6, 9, 12, 15, 17/, and 20. The music features a repeating pattern of eighth and sixteenth notes, often grouped in threes (trios). There are several annotations: a purple oval around measures 28-31, a green oval around measures 32-35, a yellow oval around measures 6-9, a green oval around measures 12-15, a yellow oval around measures 15-18, and a green oval around measures 18-21. The score ends with a double bar line and the text 'Gavotte Da 1re Capo'.

Gigue

The musical score is written in bass clef with a key signature of two flats (B-flat and E-flat) and a 3/8 time signature. The piece is titled "Gigue". The score consists of ten staves, with measure numbers 7, 14, 21, 28, 34, 41, 47, 53, 60, and 67 marked at the beginning of their respective staves. The notation includes eighth and sixteenth notes, rests, and accidentals. Several measures are circled in green: measures 10, 13, 20, 23, and 68. Two measures are circled in yellow: measures 28 and 34. A wavy line (trill) is placed over measure 53. The piece concludes with a double bar line, a repeat sign, and the word "Fine" with a fermata over the final note.



DET KONGELIGE DANSKE MUSIKKONSERVATORIUM

As professor of cello at the Royal Danish Conservatoire of Music, Morten Zeuthen has led a blooming, international class of cellists since his appointment in 1996. His pupils have won many prizes and positions. Among those: his students have three times in a row won first prize in The Danish String Competition. Results listed under Masterclasses and Jury on www.mortenzeuthen.dk. He, himself, studied under Paul Tortelier and Asger Lund Christiansen, and, for short study periods, Mstislav Rostropovich and Arto Noras.

As soloist, he has performed with all the Danish symphony orchestras, often appears entirely solo, and has extensive duo activities with the pianist, Amalie Malling. Together they have played in the Carnegie Hall, New York; the Wigmore Hall, London; and the Casals Hall, Tokyo. He has made many CDs, his recording of Bach's solo suites received a Danish Grammy for Best Classical Recording of 1994 and in 2006 the "Suzuki Classical Review" found Zeuthens recording the very best out of the 110 recordings available. His CD, "L'Homme Armé" with new Danish solo music was awarded the Best Classical Solo Recording of 2006. Other important releases are complete compositions of Paul Bazelaire (1886.-1958) and Per Nørgårds solo and duo works for cello.

Among other awards twice the prize given by the Danish Musicians Union.

As chamber musician, Morten Zeuthen was a member of the legendary Kontra String Quartet from 1976 to 2000, who toured Europe, Japan, and the U.S, during a time when they were an ensemble officially representing the Danish state. The Quartet have recorded all the string quartets written by the major Danish composers, more than 30 CDs. The Quartet have been awarded The Gramophone Record of the Year, have been twice nominated for the Nordic Counsel's Music Prize, received the special prize for the year's new music recording at the MIDEM festival in Cannes, etc.

As principal cello concertmaster in the Danish Radio Symphony Orchestra from 1978 to 1997, he has toured much of the world and worked with some of the world's greatest conductors and soloists.

Morten Zeuthen plays a Giuseppe Rocca cello dating from 1845.

www.mortenzeuthen.com

Books:

"Anton Kontra, historien om en Kunstner"
With Peter Fabricius and Valdemar Lønsted.
Gyldendal, 2010

"Close the Door behind you"
A cyclic strategy for practicing demanding classical music
2018

