

The violone grosso and violone of Bach's Brandenburg Concertos.

In 1721 Johann Sebastian Bach presented a score of six concertos to the Margrave of Brandenburg. Bach was working in Cöthen at this time, a Calvinist town where instrumental music was not performed in church, writing instrumental music and solo cantatas at the court of Prince Leopold of Anhalt-Cöthen. Some discussions of these "Brandenburg" concertos have examined the "violone" part as if it were a double bass part and speculated on the tuning of the instrument for which this compass was specific.

As recently as 1993, at the time of the New London Consort recording of the Brandenburg Concertos, I was still a refusenik as far as the so called 8ft violone was concerned. Notwithstanding the excellent work that Laurence Dreyfuss had done, published in "Bach's Continuo Group" 1987, and which I was aware of, I insisted that a large contrabasso type instrument was the right string bass to use.

Since that recording Mr. Dreyfuss' book has looked down at me from the shelf above my desk giving rise to nagging doubts that question long held opinions. Covering old ground again, in preparation for a talk on the many meanings of the word violone to the Viola da Gamba Society of Great Britain in 2003, those opinions changed as I began to interpret the evidence anew.

The compass of the bass part over all 6 concertos is Bb to f' sharp at notated pitch. Only concertos 2, 4 and 5 have a stave dedicated to the violone, always the lowest string stave sitting just above the cembalo. Concerto 2 has a range of C to e', concerto 4 D to f' and concerto 5 D to f' sharp.

What instrument or instruments did Bach have in mind and was it his intention that the bass line transposed be down an octave?

Two other books have transformed my view of the performing practise of concerted (and liturgical) music in the 17th and 18th century. The first was Andrew Parrot's "Essential Bach Choir", a book inspired by Joshua Rifkin's ground breaking paper delivered in Boston, 1981 on the subject of the proven performing resources that Bach had at his disposal at Leipzig.

This paper broke with the tradition of performing Bach's choral works with multiple performers on each part, showing that vocal concertists sang each chorus part alone, with occasional support from a second set of single singers, called ripienists, in clearly designated sections (from separate sets of parts only including the music the ripienists are called upon to sing). The careful analysis of the

performers available to Bach in Leipzig and the distribution of those forces across the five churches he was responsible for (the Nikolaikirche, Thomaskirche, Petrikerche, Neue Kirche and Johanniskirche), and a close look at the surviving performance parts reinforce an argument that is impossible to refute, though many remain unhappy with the conclusions.

The second of these two revelatory books, Richard Maunder's "The Scoring of the Baroque Concerto" published in 2004, shows a very clear tradition of one to a part performance of "concertos" until 1740 that Maunder backs up by detailed analysis of published part sets and original performing material, and an insistence on a literal interpretation of the indicated instrumentation. Some early concertos do not follow the model of a soloist set against a group that Vivaldi developed. They may, on occasion, have been performed by larger forces: this possibility would be indicated by the composer.

These two studies also show that 'solo' and 'tutti' markings in published and manuscript parts are an indicator to the performer that his part is more or less exposed and not an instruction to putative desk partners to be silent or rejoin. The information in the part was all that was available to the musician. In his introduction Maunder is very clear that a score's "chief function was as a blueprint for the copyist of parts and, except in the opera-house, they were not normally used in performance; nor were they published except on the rarest of occasions." [Maunder Op. cit. p7] Parrot/Rifkin and Maunder point out that sharing parts as we do today was not common practise in the 17th and early 18th centuries. Reading hand written parts by candlelight could not have been easy work, particularly in an age before modern spectacles.

If the Brandenburg concertos were originally intended for one performer to a part, playing the violone part on a large bass viol began to seem much more credible, further undermining my previously entrenched position.

[On several occasions the double bass player and iconic early music pioneer, Francis Baines reminisced to me that as a young player, every double bassist was given his own stand and part. Maybe it was a gentle hint that I was hogging the stand. Francis was born in 1917 and passed away in 1999. I'm guessing that he was playing professionally by the late 1930s.]

In Bologna, where the first concertos were published in 1685, separate parts for violoncello and violone are often included. Stephen Bonta's papers "From violone to violoncello: a question of strings", 1977 and "Terminology for the bass violin in the 17th century" 1979

have shown that in Italy, at least by the end of the 17th century, “violone” indicated a large bass violin that may have been tuned the same as the new smaller violoncello. The top a string could be tuned to g as the long string length might make an a one step too far. It could also be tuned as the French did, a whole tone lower, Bb f c g. There is an alternate example of 2 sizes of instrument, identically tuned: larger and smaller sizes of viola existed in the 17th century. A bigger bodied instrument took the lower of the inner parts, a smaller the higher.

In Rome and Venice the 2nd bass part is figured and appears to be intended for a chordal instrument, most usually the cembalo. There is no evidence of a second string bass instrument as in the Bolognese manner. In all three places any suggestion to double the parts is always specified. Valentini (in Rome) is alone in using the term contrabasso.

In the concertos of the Venetian Tomaso Albinoni an uncomfortable 2 octave gap occurs at certain points between violoncello and contrabasso if the lower part is played at 16ft. In Maunder’s analysis, that 2nd bass line is taken only by the cembalo. There is only one octave separating the 2 bass lines at those points and on the whole they are in unison, although the result is a sparser texture than we are used to nowadays.

Giuseppe Tartini’s words to Francesco Algaratti at the Berlin court in a letter dated 24th February 1750 come to mind: “these little sonatas of mine are provided with a bass for the sake of tradition. I play them without the bassetto and that is my true intention” [“Le piccole sonate mie a violino solo hanno il basso per cerimonia; particolarita che non le scrissi. Io suono senza bassetto e questa e la mia vera intenzione”]. That is also a sparse texture.

[Strangely, there is one collection of concertos that Maunder does not necessarily exclude the contrabasso from, even though a reading of the evidence he presents in his book, as it appears to me, does not seem to justify an exemption. For reasons of over familiarity, it is the one piece that we all might care to be excused from: Vivaldi’s Four Seasons].

These are Italian examples but like other Italian practises, the concerto spread and became fashionable north of the Alps in short order. Maunder identifies the 12 concertos of Georg Muffat’s “Auserlesener mit Ernst- und Lust-gemegter Instrumental-Music”, Passau 1701 as the first published in Germany. Muffat says they were written in the 1680s, some of them during a visit to Rome in 1682. In the preface, he is careful to describe, in some detail, how to double the

instrumental parts if needed. It's certain that Bach was aware of at least Vivaldi's opus 3 and 4 concertos because he transcribed some of them.

Bach may not have had much chance to work with a low doubling string bass until he moved to Leipzig as the musical establishments of the appointments he held before 1723 may not have included a large bass. Dreyfuss [Op. cit p153] has discovered one date when Bach it seems did have a contrabass at his disposal. For a performance at Weissenfels of Cantata 208 on February 23rd, 1713 (while he was working at Weimar), the lowest staff is labelled Cont. e violone grosso for the 11th and 15th movements.

In other Mülhausen and Weimar cantatas the violone part is occasionally written an octave lower than the cello (in autograph parts), a clear indication that the violone was not transposing the part to a lower octave. This could be the model for the Brandenburg concertos 2-5: 2 string basses in unison one or the other dropping an octave to reinforce the texture for some measures.

. If Bach thought that a violone grosso was available to the Margrave, it must have seemed an exciting addition to the manuscript score for the largest of the concertos to give it a grandeur and majesty quite different from the others in the set.

He was certainly interested in new musical innovations: late in life he suggested improvements to the forte piano to its maker Silberman and become an agent for their sale. In Leipzig he began to use the newly invented oboe d'amore and oboe da caccia. The latter plays a 5th lower than the oboe, just like the tenor oboe that already existed, but it's curved construction produced a new and dulcet timbre

Even if Bach had not hitherto encountered a violone grosso, his visit to Dresden was the moment to observe one at close quarters. In the list for the Court Kapelle of 1709 the string section comprised 4 violins, 1 hautcontre, 1 taille, 2 violists (gamba or viola players?), 4 violoncellists and 1 unnamed contrabassist, by 1719 the string players numbered 1 gambist, 7 violinists, five violists, 5 violoncellists and three contrabassists (Personelli, Zelenka and one unnamed player).

For the opera season commencing 1717 the contrabass players Girolamo Personelli and Angelo Goggi were engaged. The Elector wrote that a contrabass player "who has the necessary skill to accompany the voices and provide movement to the whole orchestra" was absolutely necessary. ['Jan Dismas Zelenka' Janice B. Stockigt OUP 2000] Zelenka, though named as a contrabassist in 1717, was absent from the court from 1716 to 1719. In another register of the Kapelle he was listed as a violone player at the same time as

contrabasso players but remunerated differently (less!). [reference required]

There are 2 early references to very low tunings in the contrabass range - Michael Praetorius in Wittenburg, 1607 and Adriano Banchieri in Bologna, 1609. Both give tunings as low as D'. Banchieri does not repeat this tuning in 1611. Paul Brun has pointed out that Praetorius's illustration (plate v, *Theatrum Instrumentorum* 1620) depicts an instrument with a string length of 130cm, just over 51 inches. [Brun Op cit p 172] Speaking to Dr. Ephraim Segerman in 2006 about these very low early tunings he recalled that two giant instruments survive, with sounding string lengths of about 133cm (over 52 inches) at the Musée de la Musique in Brussels.

In case anyone is unfamiliar with the string lengths of the double bass, 42 inches (106.5 cms) is about par for an orchestral sized bass. An extra 9 to 10 inches (approximately 25 cms) would require a new (and simpler) approach to playing the double bass - or a second player to help out.

I can't improve on Paul Brun's words that "while in Praetorius' time such an unmanageable instrument was the price to pay for reaching 16 foot D, our modern 16 footer was born only when the technological progress in the fabrication of strings made it possible to produce good sounding contra pitches with a playable string length and a convenient body size" [New History of the Double Bass 2000 p173]. Those technological changes are pinpointed to Bologna by Stephen Bonta and dated to the 1660s, shortly before contrabass tunings reappear with Bartolemeo Bismantova in Ferrara, 1677.

In the text of the *Compendio Musicale*, Bismantova says that the bottom string of the contrabasso or violone grande, a 4 string instrument, can be tuned to E if the string is thick enough. This precedes a clef showing the tuning - G', A, D, g - suggesting that he expects the 4th string to be inadequate to that task.

Interestingly, he also says of the violoncello that the bottom string can be tuned to C if it is thick enough but again shows a different tuning in the clef that follows - D G d a.

In the same year Johann Jacob Prinner gives quite a different contrabass tuning - F' A D F# b. Maybe it shouldn't be too much of a surprise that he was writing in Vienna. What is surprising is that the Englishman James Talbot, writing about 1694, notes almost that same tuning, F' A D F# a - something we now know as Viennese tuning. It appears in the manuscript notes of what he learnt from others, rather than by direct observation.

That tuning is definitely evidence of localised traditions - it was still in use at the beginning of the 19th century, with or without the bottom string - in a city with a strong reputation for ploughing it's own furrow. The Vienna oboe, still in use in the Vienna Symphony, Philharmonic and Opera, is the last descendent of the German style oboe, lacking the bottom Bb of oboes following the French tradition. It is not played elsewhere.

Other low tunings at the end of the 17th century are more in line with Bismantova. Daniel Speer in Ulm, the 1697 expansion of an earlier 1687 version - E' A D g, Thomas Balthazar Janowka in Prague, 1701 and 1715 - G' A D G (and according to Paul Brun, also F' A D G).

The detail of the instrumentation for violoncello, violone and cembalo noted in Bach's autograph score is as follows:

Concerto 1:

Heading: violoncello col basso continuo

Stave: lowest, continuo e violone grosso; next up, violoncello (no figures in the basso continuo part either, those only to be found in concertos 2 and 5).

Concerto 2

Heading: violone in ripieno, violoncello e cembalo.

Stave: lowest, violoncello e cembalo al unisono; violone next up .

Concerto 3

Heading: tre violoncelli col basso per il cembalo

Stave: lowest, violone e cembalo.

Concerto 4

Heading: violone in ripieno, violoncello e continuo

Stave: lowest, continuo; next up, violone, violoncello above

Concerto 5

Heading: violoncello, violone e cembalo concertato

Stave: lowest 2, cembalo concertato; next up, violone; 4th stave up violoncello (definitely not the concerto to share the cembalo part)

Concerto 6

Heading: violoncello, violone e cembalo.

Stave: lowest, violone e cembalo; next up, violoncello

Laurence Dreyfuss and Richard Maunder have both commented on how the words *violone grosso* at the beginning of the presentation score of the first Brandenburg concerto seem to be added later, pointing out that the words are crammed in and the colour of the ink is different. EXAMPLE 1

Both writers also suggest that concertos 2 and 6 were, at least originally, written for an 8ft bass. Dreyfuss points to an early version of concerto 5 that has no violoncello part. The surviving *violone* part is not a transposing part and only contains music for the first movement. Bach's own performance copy of this concerto was not a score, just the *cembalo* part. The extensive figuration for both hands in the first movement would make it difficult to pick out a bass line. Perhaps Bach thought this task to be more straight forward in the last movement.

[The *violone grosso* seems an unlikely participant in chamber music with the *traverso*: could it be that "*senza violone*" - sometimes a generic term for the lowest string part - is an instruction to the violoncellist to leave the double of the polonaise to the *cembalo* and *traverso* alone?]

If the *violone* for all the concertos is a double bass instrument playing in the 16ft pitch register, then it follows that "*violone*" is an abbreviation for "*violone grosso*". There are no other cases of abbreviating instrument names in the Margraves's score except within the first concerto where "*Due corni da caccia*" are elsewhere referred to as *corni*. There are examples of qualifying additions: *flauto* in concerto 2 becomes "*due flauti d'echo*" in concerto 4; "*viola*" in concertos 1 to 5 is "*viole da braccio*" in concerto 6. Bach was very careful to distinguish between the two sorts of *viola* here: "*due viole da braccio e due viola da gamba*".

If it's not an abbreviation, then I take "*violone*" to mean the "German" *violone* that the cello was supplanting and "*violone grosso*" to be the *contrabasso* or *kontravolon* that was increasingly being used to double the *violoncello* an octave lower.

The Margrave's copyist would have extracted a reduced part for it from the *cembalo* part. For an example of what that part might have been, the autograph part in Bach's hand for the A major harpsichord concerto and the cantata "*O holder Tag, erwuenschte Zeit*" written in 1741 give a very clear indication of what a *contrabasso* might have played. EXAMPLE 2 + 3

In approaching this concerto for Trevor Pinnock's recent new recording of the Brandenburg concertos I played a reduced part [ex 1, 2 and 3], omitting passages when the *tutti* was not playing and

transposing the very low notes between C' and E' up an octave
EXAMPLE C1.2.

Though simplification is documented in double bass playing later in the 18th century, Bach does not simplify the bass in the violone parts mentioned above but confines the contrabasso to the tutti points of a movement. I may be at fault simplifying it further. EXAMPLE
CONCERTO 1/1+3

At measure 9 of the 2nd movement I took the lower quarter note G to be an indication to leave the bass melody to those instruments playing at sounding pitch and played the bass note at the beginning of each bar until the repeated 8th notes resumed, doing the same each time the theme returned to the bass. EXAMPLE 4

The use of the 8ft violone for the other concertos was an idea that Trevor Pinnock was coming round to himself in any case. [Dreyfuss noted the existence of a later set of parts for concerto 3 in the hand of Penzel dated 1755 that he believes may be based on a version of the concerto that no longer survives. [Op. cit. p 151]. One part is labelled Violono grosso and resembles the Violoncello 3 part of the Brandenburg score. Given this historical precedent, Trevor Pinnock decided on a contrabass for his new recording but asked for a smaller instrument than the large bass (lowest note F) I had used for concerto 1 as he wanted a more incisive sound. I used a small 3 string bass (lowest note G) from Nuremberg, 1720 (if the label is to be believed). Bach's will revealed that he owned quite a few instruments and one of them was called a bassetgen (little bass). The German bass dealer and player Tobias Festl has commented that small size basses with either 3 or 4 strings seem to have been made throughout the 18th century in Germany. Tantalizing though it is to speculate, the will does not reveal how many strings Bach's bassetgen had.]

The tuning often referred to as the G violone tuning - G' C F a d g - appears in Praetorius and Banchieri and earlier theorists. It dies out in the works of Italian theorists by the middle of the 17th century (except for the surprise appearance in Filippo Bonanni, Rome 1722) but persists in German publications for some time afterwards.

Prinner 1677, Georg Falck (Nuremberg 1688) Daniel Speer (ulm 1697) and Daniel Merck (Augsburg 1695) all note the 8ft tuning, G' C F a d g. Falck offers an alternative, tuning the F string to E. Each theorist uses a different name: Prinner 'basso di viola', Falck 'violon', Speer 'bass violon' and Merck 'Bass Geige'. Merck gives an alternate tuning in A - A' D G b e a - as well as the tuning of the "French bass", Bb" F c g. Daniel Speer makes no mention of a 4 string alternative.

The 6 string instrument tuned G' C F a d g has often been included with contrabass tunings because of its low G' string but the

lowest string of a 6 or 7 string viol is it's least accessible. The Irish viol player, Andrew Robinson, talking to me of viols made a pithy statement concerning playing in consort - "if you are playing on the bottom string of a tenor, you should be playing on a bass". Buxtehude wrote a sonata for viola da gamba for violone. The lowest note in the violone part is D below the bass staff.

My personal experience of playing a large 6 string instrument with a palm upward bowing style is that the "business" strings are the top 5 - C F a d g. Across the open strings that is a range one tone shorter than the violoncello or the same as a cello in Bolognese tuning - C G d g - (used by Bach in the 5th cello suite). I have seen this tuning without the bottom string, ie. C F a d g but I am unable to reference it at the moment.

[One piece where we can be sure the 6 string violone was played as an 8ft continuo instrument is Monteverdi's "Il Combattimento di Tancredi e Clorinda", first performed for Signor Girolamo Mozzenigo in the Carnival of 1624 (but published in 1638) as the composer defines the role of the violone in his published preface: "contrabasso da gamba, che continuerà con il Clavicembalo, doveranno essere tocchi ad imitatione delle passioni del' oratione" - "a large viola da gamba, which plays continuo with the harpsichord, should be played in imitation of the passion of the words" (King's Music 2005 translation). The lowest note is D.

Four members of the violin family are also called for: "quattro viole da braccio, Soprano, Alto, Tenore & Basso". The bass viola da braccio only plays when the other viole play and it is not called upon to play any notes below G, it's lowest string according to Banchieri in his *Regola Per Accordare* of 1609: tuning G d a e.]

It's certainly true that Bach makes use of the whole range when writing for the violin in the sonatas and partitas and for the cello in the unaccompanied suites and in concerto 6 for the viole da braccio and violoncello. In the 3 sonatas for viola da gamba that is not the case. The first sonata only descends to b and does not require the bottom D or A' string; the 2nd sonata uses all the strings to low B; the 3rd sonata does not use the 7th string but does descend to low D.

The top strings of both the G violones that I use (string lengths: 87cm and 94cm - 34 1/4 and 37 inches) are relatively thin compared to the violoncello. It's a subjective view on my part that the fullness of tone in the violone's high register is less than it is on a shorter, fatter strings of the violoncello (hopefully in line with expectation). For the participation of this large viol to be credible, it seems important the Brandenburg concertos follow the same one to a part model that Maunder describes elsewhere.

[Paul Brun op cit. p124 records the tuning G' C F a in a later period: Kobrich 1781, Fröhlich 1810, Nicolai 1816, Wettengel 1820, Schilling 1835. This was a surprise to me when I saw it first. Without the top 2 strings, it's definitely a contrabass tuning!]

Most interestingly, Merck describes an additional tuning of the 6 string instrument in a mixture of Cornett-ton and Chorton. This separation of performing pitches was a fact of life for the 17th and early 18th century musician. A difference of a tone between instrumental music outside of church (lower) and inside church (higher) was routine. In some cases, the difference could be a minor third.

Chorton is the lower of the 2 pitches and cornett-ton the higher. More often, and confusingly, Kammerton and Chorton are used to describe the differing pitches: in this case Chorton is the higher pitch and Kammerton the lower.

Merck was anticipating the violone being used with an organ tuned a tone higher and accomodating this by raising the bottom 3 strings G' C and F a tone to A' D G. The top three stay where they are (possibly because they are already tight enough) giving a tuning of A' D G a d g.

In his "History of Performing Pitch" published 2002, Bruce Haynes suggests that the pitch that Bach worked at during his sojourn in Cöthen was either tief-kammerton (low chamber pitch), A440 - 2 semitones around A=392 or very slightly higher (around A=403), but not as high as hoch-cammerton (high chamber pitch) A440 - 1 semitone, A=415. Tief-kammerton was the pitch of the French wood wind instruments being imported into Germany at the time. [Haynes Op. cit p236-237]

This system may explain the F trumpet: trumpets usually played in D. Haynes suggests (among other things) that the old German military trumpet in D at Praetorius' reference pitch of A440 + 1 semitone, around A=465, would at tief-kammerton, become an F trumpet. [Haynes p. 238]

[As an aside, two tunings one tone apart given by a theorist may be the same instrument at different pitches. Praetorius left a conundrum for posterity of 8 different low string bass tunings. Five of them are tunings that reach into tenor register with top strings variously of f, g and a. How many of these are actually different instruments?]

It's definitely worth considering the pitch. If a large contrabass string instrument played the whole part as written, the low C' would in fact be our modern 32ft Bb at tief-kammerton. The low Bb' that concludes concerto 6 would be Ab'! These are very low notes indeed, requiring a very long and very thick string. Such a string would require

a very large bass. Would this type of instrument be ideal for one to a part chamber music with the recorder or traverso. Bear in mind that Mattheson, Hamburg 1713 described playing this instrument as labour fit for a horse.

In concerto 1 Bach calls for the *bassono*, the newcomer that had come with the *hautbois* from France. Haynes [op. cit pp 233-236] demonstrates from cantata parts written at Weimar in the years 1714-16 that the *bassono* pitch was a minor 3rd lower than those for *fagotto* (the instrument we now refer to as *dulcian*). [Haynes p233-236]

In that same period, parts for oboes show the instruments to be either a tone or a minor third lower than organ pitch. The parts for the lower pitched instruments were labelled *hautbois*, those for the higher, *oboe*.

Since it transpires these terms are very specific, let us turn once more to the instrumentation given at the beginning of each concerto to see if it backs up performance by one instrument to a part.

Concerto 1 “a 2 Corni da caccia, 3 Hautbois e Bassono, Violino Piccolo concertato, 2 Violini, una Viola e Violoncello, col Basso Continuo”

Concerto 2 “a i Tromba i Flauto i Hautbois i Violino concertato, e 2 Violini i viola e Violone in Ripieno col Violoncello e Basso per il Cembalo”

Concerto 3 “a tre Violini, tre Viole, e tre Violoncelli, col Basso per il Cembalo”

Concerto 4 “a Violino Principale, due Flauti d’Echo, due Violini, una Viola e Violone in Ripieno, Violoncello e Continuo”

Concerto 5 “a una Traversiere, una Violino principale, una Violino e una Viola in ripieno, Violoncello, Violone e Cembalo concertato”

Concerto 6 “a due Viole da Braccio, due Viole da Gamba, Violoncello. Violone e Cembalo”.

Bach is no longer here to speak for himself but it’s worth considering the words he has left us. Una, due and tre - one, two and three - are not that difficult to understand.

The score has other lessons to offer. Johann Joachim Quantz (a member of the Dresden orchestra since 1716) commented on the undesirability of excessively wide chord spacing in the *Versuch* of 1752. [reference required] In the following examples the “*violone*” part is always the lowest stave, first at 16ft pitch and then repeated at 8ft pitch.

Where the *cembalo* and *violone* share the same stave the keyboard supplies the middle octave when a 2 octave gap appears

between the string basses. Maunder is not unhappy to suggest that a high violoncello part in the Albinoni concertos can be supported by just a cembalo an octave lower, but an additional string bass playing notes an octave lower still does not seem a likely sonority to me. How substantial a bass the cembalo provides in ensembles of 6 performers or more, the listener must judge.

Concerto 2

Ex 1 commences at measure 10 of the first movement. The pickup to measure 11 is a long way down at the lower octave.

Ex 2 begins with the 1st inversion on the last 8th note of measure 22 caused by playing the e at 16ft - I have often been asked to "correct" it to a c. At 8ft the chord is fine. There are examples in the Brandenburg manuscript of corrections. A 2 octave gap develops at measure 25; at the higher octave it reinforces the bass by playing in octaves with the cello at a strong point in the music. This is in line with violone parts in early Bach cantatas (cf. Dreyfuss).

Ex 3 shows how the continuous semiquavers (sixteenths) of the violoncello are alternately doubled as a unison first by viola and then violone at measure 32. It's a neat handover at the higher octave but doesn't make as much sense at the lower octave. This is repeated at measure 77 and a third time at measure 96. The third time the violas are an octave higher (shucks, there goes my argument). Why? They would have run out of notes for the b and a in measures 97 and 98.

Ex 4 - that low pick up again (measure 67) and 3 bonus bars from measure 90: an uncomfortably large spacing in the middle of measures 90 and 91 at 16ft pitch.

Ex 5 third movement. 8ft version first this time. The running sixteenths of the cello mask a big space between the violone and the viola. I repeat the example without the sixteenths and then again, this time only the 2 bass parts, just to admire the interweaving of the lines.

Concerto 3

Ex 1 the octave separation may not offend but all other parts are in close harmony. The violas have flowing sixteenths in harmony but the pickup to measure 34 is otherwise a unison of the three cellos, violins and violone, unless the violone plays an octave lower. If it does a big distance between top and bottom parts emerges in measure 38.

Ex 2 that same gap between top and bottom in m.54

Ex 3 and again in m.75

Ex 4 an octave and a sixth in m.64

Ex 5 a very big gap in the middle of each of mm.97-99
and again in mm.119-121

Ex 6 a yawning gulf mm.133-135

Ex 7 is my simplification for the 3rd movement (at 16ft) for Trevor Pinnock's new recording. He seemed to prefer it to my semiquavers (sixteenths).

Concerto 4

Ex 1 at 16ft, a 2 octave gap begins at m.20 until 23 and again from m.29 to 31

Ex 2 at 8ft, the violone rising above the cello and continuo fills the gap between the lower and upper strings at m.25

Ex. 3 another chasm

Ex 4 the tie at the low octave can disturb the hemiola in mm.81-81, The same pattern at m.153 played at the lower octave produces a 2 octave gap at mm155-156

Ex 5 uncontroversial at first sight, but add the top parts and the violone at 8ft fills the gap by rising up between cello/continuo and upper strings m.203

Ex 6 I have to admit I don't know why I did this one

Ex 7 at 16ft a 2 octave gap starts at the pickup to 233 for 2 m.

Ex 8 at 8ft pitch, the violone plugs the gap between upper and lower parts at measures 243, 245, 247 and 249

Ex 8 2 octave gap at m.289

Ex 9 at 8ft the violone fills the gap from mm.243-249, descending at m. 251 it fills out the bass

Concerto 5

Ex 1 m.4 at 8ft the violone fills the gap when the cello and violone diverge

Ex 2 the low C creates a gap of 1 1/2 octaves

Ex 3 at 8ft the violone closes the gap in measures 82,84, 86, 88 and 90

Ex 4 is the same divergence as Ex 1, also the c in m.28 in violone fills the space created by the descent to low of cello and cembalo

Ex 5 two octave gap between cello and violone grosso

Ex 6 m.135 is very low, for a moment 3 octaves below cello and cembalo. The pedal starts over 2 octaves lower.

Concerto 6

Ex 1, 2 and 3 all have 2 octave gaps between string basses

Ex 4 the famous 2 octave separation in the slow movement, taken at 8ft pitch a powerful effect.

Ex 5 the chords of the 3 viols are better spaced with the higher bass

Ex 6 32ft Bb! (Ab at A=392).

Nicholas Parle, professor of harpsichord at the Hofschule für Musik in Leipzig, points out that the viola da gamba or bass viol is still regularly called the tenor gamba in Germany today (and what we call the tenor viol, the alt gamba). Joelle Morton (in the Early History and Use of the G Violone) tells us that in historical documents the “G violone” is often referred to as the bass viola da gamba.

Bach spent the years 1717 to 1723 as Kapellmeister in Cöthen. In the year 1717 he had at his disposal in the Collegium Musicum 3 violinists, 2 flautists, an oboist, a bassoonist, a bass viol player, a cellist, 2 trumpet players and a tympanist. Three other musicians were designated ripienista. The Prince himself played violin, bass viol and harpsichord and of course Bach himself could take a part on a variety of instruments. There is no designated violone player but one wonders about the tuning of that bass viol.