

A note about the “baroque double bass” for composers working with period instruments.

For a variety of reasons, performers may present composers writing new music for period instruments with tunings some way removed from the likely historical options.

Having sought advice from, or written for, a specific player, a composer may find that the part she/he has written does not transfer well to another performance with different personnel.

Not all performers in period instrument ensembles are necessarily historical specialists; gut strings replacing metal on otherwise modern style instruments is not unknown.

String bass instruments larger than modern violoncello size divide into 4 main categories:

- A. instruments of very great size [around 8ft/244cm tall] with limited technical possibilities used in a small geographical area in the early 17th century.
- B. 6 (or 5) string viols larger than modern cello size that survived well into the 18th century, capable of playing unsimplified bass lines at sounding pitch.
- C. 4 string instruments similar in size to B, more likely to be favoured where strong preference for violin family instruments prevailed.
- D. double basses around 6ft/182cm tall coming late to the party in the last quarter of the 17th century, with limited downward range and a variety of tuning possibilities; capable of more technical playing than group A but still well documented as simplifying the basso line in performance.

A + D are octave transposing instruments like the modern double bass (“16ft pitch”).

B + C play at pitch (“8ft pitch”) and are smaller in size than instruments in category D.

B instruments have sometimes been supposed to be octave transposing because of a bottom string (not always present) lower than C₂.

The instrument most frequently presented as a “baroque double bass” in Europe and North America is a four stringed instrument tuned D₁ A₁ D₂ G₂, regularly un-fretted and reaching a fifth at the root of the neck.

This is a classical period double bass, not a baroque instrument, though doubtless a convenience for contrabass players who prefer not to stray too far from the tuning and style of instrument to which they are accustomed. This tuning is only recorded by music theorists Koch [published Frankfurt 1802] and Forsyth [London 1914].

These are the historical trends that can be discerned, amongst a plethora of distracting detail:

A the so-called D violone (modern parlance), an octave below the bass viol, tuned D₁ G₁ C₂ E₂ A₂ D₃. This is a historical tuning but for instruments of very great size (c.8ft or 243cm), very much bigger than a modern orchestral double bass, and therefore only capable of the simplest parts (for example, marking tonic and dominant).

It seems to have been limited to the area in which Michael Praetorius worked, Thuringia; elsewhere documented in a single Italian source (who credits his information to a musician but lately returned to the Italian speaking peninsula from Northern Europe). [Banchieri 1609]

It cannot be stressed enough that the string length of these very large instruments completely rules out technical dexterity. That long string length was essential to achieve such low pitches.

Modern “copies” in regular double bass size (or smaller) tuned in this way are 20th century constructs and have no 17th or 18th century counterparts.

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B the so-called G violone (modern parlance) is tuned G₁ C₂ F₂ (or E₂) A₂ D₃ G₃. In the German speaking states the low G₁ was not always present.

The G₁ string may lead one to suppose it is an instrument capable of a sub-bass role, but it is in fact an instrument whose working range is that of the violoncello with a possibility of an occasional low note - when that low string is present.

C in areas where this 5/6 stringed instrument was not known or had already been displaced by violin family instruments, large proto-cellos (bass violins) with 4 strings were also known as violone [pl. violoni].

Tuning may have been similar to the violoncello [C₂ G₂ D₃ A₃] in Italy but a tone lower [B_{b2} F₁ C₂ G₂] in France and England. B_b tuning was not unknown in the German states. Nominative pitches may not always have been different frequencies; alternate regional pitch standards could exceed a tone difference.

Very large C tuned instruments may have had the top string lowered to G₃ to prevent excessive breakage - just as small violoncelli may have tuned the bottom string to D₂ and not C₂ owing to their short string length. [cf. Bismantova, Ferrara 1677]

D after the Thirty Years War a new instrument appears (usually with 4 strings). This is the precursor of our modern double bass. Most sources indicate tuning in 4ths: highest string G₂, 2nd string D₂, 3rd string A₁ and the lowest string tuned to a pitch the available string was best able to attain.

The most likely tuning in the 17th century is G₁ A₁ D₂ G₂. At later times, or where the performing pitch standard was higher, the lowest string might be named F₁.

1 Douane Rosengard, the expert on early Cremonese basses, comments that the first contrabassi in Italy were equipped with 4 strings, but later instruments only had the top three, and that those early instruments with 4 strings were later altered to 3. In his scholarly opinion, by 1750 it would have been impossible to find a double bass with 4 strings in the Italian states; most likely tuning option A₁ D₂ G₂.

2 well documented studies of French playing until 1832 are clear that tuning in 5ths was the norm, G₁ D₂ A₂. Subsequently Cherubini (as director of the Paris Conservatoire) effected a change, in the face of some protest, to tuning in 4ths.

3 three string tunings in 4ths A₁ D₂ G₂ and later 5th/4th G₁ D₂ G₂ were the main standard in Latin countries; in almost exclusive use by UK players until the 1914-18 war.

4 a variant tuning now known as "Viennese tuning" arose in the Southern German states during the early classical period. It's closer intervals facilitated rapid passagework because of reduced movement for the left hand up and down the neck. A lot of classical solos were written specifically for this tuning. Five strings were typical, tuned F₁ A₁ D₂ F_{#2} A₂. It can easily be seen, for example, that holding the top 3 strings down simultaneously at the same fret will always permit a major triad to be played.

As with other double basses the efficiency of the lowest string was problematic; it could be tuned up a tone to G₁ or omitted entirely.

Survival in a changing world.

Between c.1720 and 1835 six writers document a 4 string tuning that may have originated from the dying breed of "G violone" players: G₁ C₂ F₂ (or E₂) A₂,

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It's easy to imagine the alarm of musicians used to group B instruments seeing their work ebb away in the face of a developing violoncello/double bass hegemony.

Ditching the top strings and making like a double bass player on a familiar tuning would have been a smart move: if you can't beat them.....

What problems might arise for the composer?

Writing low notes below G₁ may lead to disappointment if an available instrument is set up and tuned as in the late 17th century.

Natural harmonics will vary: ignoring the moveable feast of the bottom string, it's easy to see that A₁ D₂ G₂ will produce a different range of harmonics to A₁ D₂ F#₂ A₂ [Viennese tuning]; harmonics of open strings A₂ D₃ G₃ will sound an octave higher than those for 16ft tuning A₁ D₂ G₂.

The whole balance of an ensemble will be different if it includes an 8ft pitch instrument, and not a 16ft pitch double bass. In view of contemporary evidence that large basses were reserved for opera and other "great concerts", it may become less common to find a 16ft pitch bass in groups that are not very large. At the time of writing it is still common to see a double bass in a baroque single string group, something almost unimaginable at the time such music was originally performed.

G₁ can be available on both group B and D instruments but the player of an 8ft pitch instrument will expect to see it written under 3 ledger lines beneath the staff; the 16ft player, at the bottom of the staff.

These are some issues that will arise. It may help, for a start, to write a part without anachronistic low notes [C₁ D₁ E₁]. This is not a value judgement.

Some further historical information that may be of interest.

Fretting of large bass- and doublebass- line instruments (routinely played by non-specialist players) was ubiquitous throughout the baroque period and beyond (last referenced 1827).

The use of a stout leather glove, on the left hand at least, for larger instruments was also commonplace. In 1843 Wenzeslaus Hause retired from teaching at the Prague Conservatoire (founded 1808). Gloves had still been used during his tenure. Hause's successor Joseph Hrabé would not allow them: the gloves were off!

Baroque composers could, and did, specify pizzicato on string instruments. Plucking the string while wearing a buckskin glove may be a sound unique to historical playing.

J. S. Bach could, and did, write pizzicato in his string parts; without this instruction one infers the part is intended to be played with the bow. Notwithstanding the reverence with which he is held, information he has given is not always followed.

Fingering on double basses was not always an exact science. Late in the 19th century it was still common to finger both semitones and tones in the same way, employing just 1st and 4th fingers: fingers bunched up for a semitone but spread out for a tone.

It's almost certain that all bows used on A + D 16ft pitch instruments were held palm upwards either from underneath [upstroke stronger than down] or at the end in a rough approximation of modern German style [downstroke stronger than up].

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Not until 1780 is there mention of bowing “in the manner of the violoncello” and there is no iconographic evidence of an overhand grip at all before 1750.

Bowing in palm upward style would inevitably have been “on the string” and athletic jumping between strings rather limited.

In the classical period Dragonetti espoused a type of bow that was short, with a pronounced outward curve and held from the end in modern underhand style [sometimes called “German”]. This bow hold may have originated in the Venetian Republic. Such a bow has great attack. It was not well liked by Cecil Forsyth, author of “Orchestration” [first edition 1914]: “Attacked by this bow, the Bass became an engine of desolation, dealing out destruction to all the finer tone-colours of the orchestra”.

An aside.

In the 17th century, and beyond, the violoncello was played most commonly with the same palm upward bowing technique as used on the viol. When Charles Burney visited Padua in the 1770s, he reported that every cellist in the city still bowed viol-style.

Terminology.

Careful use of terminology can help; the majority of baroque composers and writers use “violon/violone” for 8ft pitch instruments and “violone grosso/violone grande/kontra violon/contrabasso” for 16ft pitch instruments.

J. S. Bach was being absolutely specific in this way for the instrumentation of the Brandenburg Concertos: all but the first concerto require a violone playing at sounding pitch; a late flash of inspiration caused him to add “violone grosso” to the score of the first concerto and bolster the grander scoring with some 16ft pitches.

Schütz and Buxtehude routinely wrote violon for the sounding pitch bass line instrument, though Merck christened the same instrument “bass geige”. [Augsburg 1695] Frustratingly, writing in 1693 Georg Muffat (composer and music theorist) equates “violone” with the Italian “contrabasso” yet, publishing again in 1701, his “violone” evidently signifies an 8ft pitch bass when he states his preference for the French bass violin to the violone “commonly used here”.

In modern times “violone” has been widely understood for both classical and baroque periods to describe low octave-transposing instrument string basses, as well as instruments sounding at notated pitch.

By the middle of the 18th century, violoncello ‘competitors’ named violon(e) became obsolete and rendered qualifying adjectives for the 16ft pitch instrument unnecessary. Thereafter, in the classical period, ‘violone’ does signify a double bass at 16ft pitch (though maybe earlier in Venetian parlance); during the baroque period, in the vast majority of cases, it does not.

In 1752 J. J. Quantz roundly declared the “so called German violon(e)” with 5 or 6 strings to be “justly abandoned”. It seems he was not a fan.

Similarly “contrabasso”, when used as a qualifying adjective in the period before the Thirty Years War, simply indicates the lowest of that group of instruments. It should not be understood anachronistically like the noun “contrabasso” to indicate an octave transposing sub-bass instrument (my category A or D).

Monteverdi specifies “contrabasso da gamba” in ‘Combattimento di Tracredi e Clorinda’; the context quite clearly indicates it cannot be a 16ft pitch instrument.